

FINAL REPORT

TOWARDS AN INCLUSIVE COVID-19 CRISIS COMMUNICATION POLICY IN BELGIUM

This report was prepared in the context of the ICC project (Inclusive COVID-19 Crisis Communication), funded by Sciensano on behalf of the Federal Cabinet of Belgian Minister Frank Vandenbroucke.

For more information on the ICC project, visit

<https://www.uantwerpen.be/en/projects/towards-an-inclusive-crisis-communication-policy/>

PREFACE

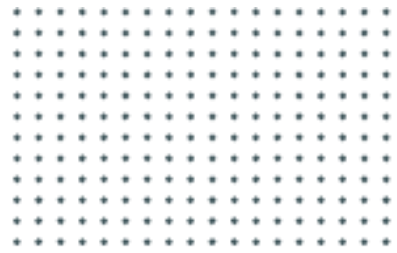
This report documents the research conducted for the interdisciplinary project entitled “Towards an inclusive COVID-19 crisis communication policy in Belgium: the development and validation of strategies for multilingual and media accessible crisis communication”, abbreviated as the ICC project.

The research was carried out between February 2021 and March 2022 by a consortium led by UAntwerpen which includes KULeuven, UCLouvain, Thomas More, Atlas Inburgering & Integratie and National Crisis Centre (NCCN).

The goal of the project is to develop a strategy for more accessible and inclusive COVID-19 crisis communication that takes into account the diversity of the Belgian population. Specifically, the project aims to address current problems relating to the (in)accessibility of the form and channel of COVID-19 government communication and the flow of crisis information to hard-to-reach groups or groups with specific communicative needs, for example, foreign-language speakers, people with low socioeconomic status or low literacy, and people with sensory impairment. In doing so, the project activities included (1) the collection of evidence from academic sources, the practice of communication product development as well as societal stakeholders and end-users, and (2) the experimental development of new COVID-19 communication products tailored to the specific needs of specific target groups in Belgium. The final result of the project is a set of context-specific recommendations and a validated evidence-based guideline for more inclusive crisis communication in a pandemic context, to support stakeholders and governmental organisations in the development of strategies for accessible crisis communication in a pandemic context.

We would like to thank our advisory board members, who provided us with invaluable input throughout the research activities. We appreciate the time they took to complete our questionnaires and to share relevant reports and documents with us. Particular appreciation goes out to the advisory board members who took part in the roundtable discussions and shared their knowledge and expertise with us so freely. We are also very grateful to the participants of the focus group discussions who accepted our invitation to share their experiences and views with us. They have considerably enriched our understanding of their complex realities, and we feel honoured by the trust they put in us. We hope to be able to convey their voices accurately through this report. Lastly, we wish to thank the members in the expert panel for their active participation in the guideline development process, which was integral to the project outcomes.

ABOUT THE AUTHORS



The ICC project has been jointly conducted by a consortium of twenty experts and researchers from five different institutions. Below we introduce each member of the consortium by listing their expertise, (research) interests and previous work relevant to the project, as well as their specific role within and contribution to the project.

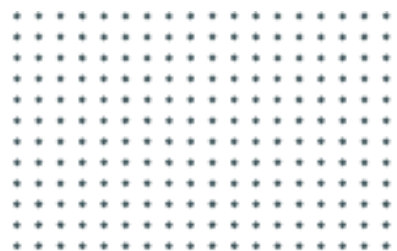
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- **Dr. Marijke Lemal (Thomas More)** is manager of the unit ‘research and service’ at Thomas More University of Applied Sciences. She holds a PhD in social sciences and communication sciences from KULeuven. She contributed to the ICC Project as the PI for Thomas More.
- **Dr. Wessel van de Veerdonk (Thomas More)** is a Doctor in medical sciences, epidemiologist (MSc) and nurse (BSc) with a strong clinical background in (forensic) psychiatry. Wessel is currently working as a researcher and coordinator at the Thomas More University of Applied Sciences and focuses on research methodology and prevention. Wessels works on multiple projects in which several disciplines (technology, communication, healthcare) come together reaching most innovative results. Wessel’s role in the project, together with Sarah Talboom, was setting up, executing and reporting on the roundtable discussions with intermediaries and the focus group discussions with the defined vulnerable populations in Flanders.
- **Sarah Talboom (Thomas More)** has a background in Communication Sciences. She is currently working as a researcher at the Thomas More University of Applied Sciences within the domain of strategic communication and a focus on inclusive and health communication. Together with Wessel, Sarah was responsible in the ICC project for setting up, executing and reporting the roundtable discussions with intermediaries and the focus group discussions with the defined vulnerable population groups in Flanders.

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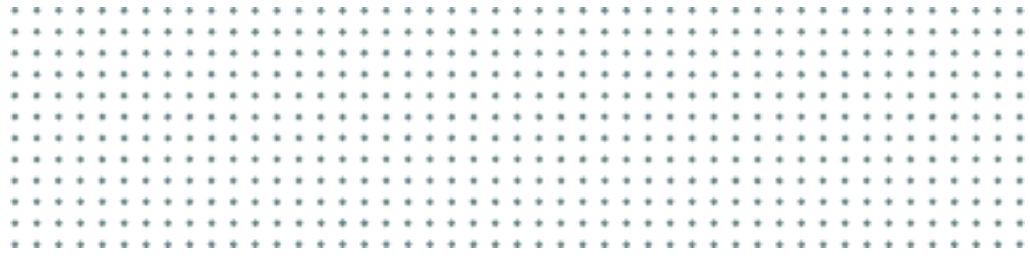
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PART 1

INTRODUCTION

1 CONTEXT AND RESEARCH OBJECTIVES

Access to information is not only a right (UNCPRD, 2000; EU Accessibility ACT), but also a key factor in combatting the outbreak of a crisis like the COVID-19 pandemic (WHO, 2020). Yet various signals since the start of the pandemic in Belgium indicated that the governmental COVID-19 crisis communication from 2020 onwards did not reach and was not accessible to all target groups equally. Persons and minority groups who experience **sensory, linguistic, cultural or textual barriers**, in particular, were at risk of encountering difficulties in accessing government COVID-19 information. For this reason, a **more inclusive and accessible crisis communication approach**, tailored to the needs of citizens of all abilities, is required in the fight against COVID-19 in Belgium.

Crisis communication is understood in this project as “the collection, processing, and dissemination of information required to address a crisis situation” (Coombs, 2010, p. 20). Specifically, the project focuses on crisis communication by the federal government on the topic of COVID-19 during the pandemic outbreak in Belgium. **Inclusive communication** is understood in this project as a communicative approach which allows as many people as possible to access the information captured in the mode of communication. The project’s aim to contribute to a more inclusive COVID-19 government communication strategy thus pertains to the removal and overcoming of barriers which can prevent individuals’ access to the information.

According to the World Health Organisation, a successful inclusive communication strategy can be achieved by prioritising the following **four communicative aspects** (Olofsson, 2007; WHO, 2020):

1. accessible **forms** of communication (including (re)translations and media access services¹ such as subtitling, sign language, Easy Language, and symbols),
2. accessible **channels** of communication (online or offline channels),
3. an efficient **spread** of the communication, and
4. an effective **outreach** to the target population.

The federal COVID-19 crisis communication strategy during the initial phases of the pandemic outbreak in Belgium did not satisfactorily address these aspects. In order to support the national and local governments at various levels to improve their COVID-19 communication strategy, policy recommendations and validated guidelines regarding inclusive and accessible crisis communication are crucial. To date, however, such research-based recommendations are scarce, especially for the specific context of Belgium.

The ICC project’s objectives aim to contribute to filling this gap and to provide the government with knowledge to produce communication about risks and crises in an accessible and inclusive manner, both for the current COVID-19 pandemic and other future crises. In particular, the project’s objective is (1) to develop an evidence-based guideline and context-specific policy recommendations, which offer advice on how to best communicate COVID-19-related information to people of all abilities, especially those who have proven to be hard to reach or are more vulnerable because they experience persisting sensory, linguistic, cultural, or textual barriers to

¹ Access services here refers to the provision of measures and adaptations to make communicative products more accessible for people with an impairment. Such services usually include, but are not limited to, subtitling (for people who are deaf and hard of hearing), audio description, sign language translation and Easy Language.

access information; and (2) to put some of these recommendations into practice by developing accessible COVID-19 crisis communication products.

2 DELINEATION OF THE PROJECT

In the following sections, the **two prioritised foci of the project** are defined and delineated within the wider context of a pandemic outbreak: (1) the **target groups** in Belgian society which are prone to experience communicative barriers to COVID-19 crisis communication and (2) three dimensions of COVID-19 crisis communication: the **form** of government communication materials, the **channel** via which these materials are distributed and the **outreach** of government communication efforts.

2.1 COMMUNICATIVE BARRIERS AND PRIORITISED TARGET GROUPS

The main aim of the project is to define recommendations and strategies for a more inclusive crisis communication. To achieve this inclusive approach, attention is paid to specific target groups that are known to be harder to reach or that are possibly vulnerable, because they can experience persisting barriers to access information. In the project, we topicalise the following barriers explicitly:

- **Sensory barriers**, which includes barriers to access the message content due to a permanent or temporary visual or auditory impairment, such as blindness, hearing loss or deafness. For example, a hard of hearing person cannot access the press conference videos.
- **Linguistic barriers**, which refers to barriers to access the message content due to language-related dimensions of the communication. This includes literacy and proficiency. For example, a person who speaks a foreign language and does not (yet) master one of the official languages of Belgium fluently cannot understand communication which is in Dutch, French or German only. Or, for example, a person with low literacy skills cannot fully access written communication materials.
- **Cultural barriers**, which encompass barriers to access the message content due to a different linguistic or cultural background. While this is a broad category, in the context of this project, we focus specifically on non-verbal textual aspects such as the use of colours, images, symbols, and the design of a text etc. For example, certain languages use writing systems which have right-to-left, top-to-bottom script.
- **Textual barriers**, which are defined as barriers to access the message content due to the complexity and/or clarity of the text. Text complexity encompasses both linguistic aspects (such as difficult terminology and long and complex sentences) but also non-linguistic aspects. Problematic examples of the latter that have been reported include the use of abstract concepts, the density of the information, the lack of clear priorities in the text, the separation of main points and details, the lack of (terminological) consistency, textual coherence and clarity, and an ill-structured layout. Textual clarity and terminological consistency are also important for (re)translation for different target groups. If the source text is not clear and easy to understand, this also negatively affects the (re)translation.

Based on these specific barriers and the feasibility limits of the project, the needs of the following **target groups** of governmental COVID-19 communication were prioritised in the project:

- Foreign-language speakers
- People with low literacy skills
- People with sensory impairment

In defining these target groups, the project also adopts an intersectionality perspective and focuses specifically on individuals part of these target groups with **socioeconomically disadvantaged backgrounds** and **low socioeconomic status**, as (social) vulnerability in contexts of crisis typically emerges intersectionally (Kuran et al., 2020).

2.2 PRIORITISED COMMUNICATIVE DIMENSIONS OF CRISIS COMMUNICATION

The specific focus of the ICC project lies on the role of the form, channel and outreach of the message in the wider context of the crisis communication process²:

Form refers to the different modalities the message content takes, i.e. the textual form of the message in both its verbal and visual form. Examples of different forms include a written text, a video, an audio file, audio description³, audio introduction⁴, infographics, and subtitles.

The form of the message as an umbrella term includes not only the original text, but also its (re)translations: it includes the wide array of services that translate a source text into a target text for specific audiences. This can include traditional interlingual translation from one language and culture into another but can also include forms of intralingual translation within the same language, such as retranslation, and forms of intersemiotic translation (from one modality, e.g., written words, to another, e.g., spoken language or visuals). Examples of retranslations and intersemiotic translations include Easy Language versions, audio versions, subtitling, sign language interpreting, and visualisations through symbols or video.

Channel refers to the medium used to distribute the message and its different forms and includes both online, digital, print and other non-digital channels. Examples of different channels are printed folders, posters, television, radio, fixed phones, mobile phones, text messages and SMS, as well as internet-based resources such as email, video conferencing, social media (WhatsApp, Facebook, Twitter), and (government) websites.

Outreach refers to the ways in which the message's form and channel are appropriate for the communicative needs of the target audience and how the message in its specific form is distributed, possibly through intermediaries, to the target audience. The assumption here is that appropriate and varied forms and adequate channels are a precondition to achieve wider access

² It is important to emphasize at this point, that for project feasibility in a crisis context, the focus of the ICC project lies on the form, channel and outreach of COVID-19 governmental communication and does not include the content of the message (i.e. which information is included and how it is framed) and the impact of COVID-19 communication materials on behaviour change. These two elements lie beyond of the scope of the ICC project, as other COVID-19 research project in the Belgian context (VAXCOM and TRANSVAXX) examine these issues.

³ Audio description (also known as video description or visual description) is an additional narrative voice that provides information about relevant visual elements in a media work for people with visual impairment.

⁴ Audio introductions are brief audio messages at the beginning of an audiovisual text that provide necessary information for people with visual impairment to be able to follow the video. Audio introductions can be stand-alone or can be combined with audio description during the video.

to the information for the intended target groups, which indirectly supports a larger outreach and exposure in the long term.

3 ADVISORY BOARD

In addition to the project consortium, an **advisory board** was created to support the research activities throughout the project's lifetime. The advisory board was involved in a participatory approach to contribute valuable strategic knowledge from professional experience in the work field. The stakeholders in the advisory board include civil society organisations, user representative organisations, governmental organisations and experts-by-experience. They were selected on the basis of their operational area, their line of work (i.e. the organisation's mission and objectives) and their target group.

The advisory board was involved in all stages of the project in different ways: providing documentation and best practice examples, filling in surveys, providing feedback on research activities, joining roundtable discussions, and supporting the recruitment of focus group discussions (SEE ALSO SECTION 4.3 IN THIS CHAPTER).

The following is an alphabetical list of organisations of the project's advisory board from Flanders, Wallonia and Brussels:

- Agentschap Binnenlands Bestuur (afdeling Gelijke Kansen, Integratie en Inburgering), represented by Tom De Bruyn
- Agentschap Integratie en Inburgering, represented by Kris De Busscher
- AHOSA vzw Anders Horen Samen Aanpakken - association for people with hearing impairment.
- asbl Aidants Proches
- Arendsblik vzw
- Association Belge du Syndrome de Marfan (ABSM) asbl, represented by Rémi Rondia
- Atlas, integratie & inburgering, represented by Claire Koreman
- AVIQ
- Aya asbl, represented by Hafida El Ouaghli
- CAB tolkenbureau (vzw Vlaams Communicatie Assistentie Bureau voor Doven)
- CAW Groep, represented by Lore Robeyns
- City of Antwerpen
- City of Charleroi and the citizens' spaces of Marchienne Docherie and Porte de l'Ouest (CPAS Charleroi)
- City of Genk
- City of Gent
- City of Hasselt
- City of Verviers
- Cultures&Santé
- Doof Vlaanderen, represented by Helga Stevens
- Eleven Ways bv, represented by Roel Van Gils
- ella vzw- Kenniscentrum gender en etniciteit, represented by Sarah Scheepers
- Entr'aide Marolles, represented by Vanessa Stappers
- L'Escale asbl, represented by Muriel Brunneval
- Expert-by-experience Nico De Rechter
- Expert-by-experience Benoît Ramakers
- Fédération Francophone des Sourds de Belgique asbl, represented by Marie-Florence Devalet
- Fondation I see, represented by Isabel Litvin
- Gemeenschappelijke Gemeenschapscommissie (GGC)
- de Gentse Wijkgezondheidscentra (VWGC)

- HoorCoach Regina Bijl
- IN-Gent, Integratie & Inburgering Gent
- Inter Expertisecentrum toegankelijkheid, represented by Bart Parmentier and Marjolijn Clijsters
- Kortom vzw, represented by Eric Goubin
- Ligo, Centrum voor Basiseducatie Antwerpen, represented by Annelien Mallems
- Ligo, Centrum voor Basiseducatie Brugge-Oostende-Westhoek
- Ligo, Centrum voor Basiseducatie Midden- en Zuid-West-Vlaanderen, represented by Tine Baert
- Ligo, Centrum voor Basiseducatie Limburg Midden-Noord
- La Lumière asbl, represented by Martine Colla and Véronique Nihon
- National Crisis Center (NCCN), represented by Lien Vermeire
- Netwerk Tegen Armoede, represented by Gert Van Tittelboom, communicatieverantwoordelijke and Cindy Van Geldorp, ervaringsdeskundige
- Onder Ons vzw, represented by Arsène Vyncke and Nicole Engelen
- Orbit vzw
- dienst ervaringsdeskundigen, POD Maatschappelijke Integratie, represented by Ashley Vaeye and An Luxem
- Proforal, represented by Camille Simoney, Mai-Ly Nguyen and Sabrina Fecchio
- RAQ for Fédération des Services Sociaux Bicommunautaire et asbl Les Pissenlits, represented by Anaïs Legrand
- SAAMO Antwerpen vzw, represented by Griet Vielfont and Ilse Hackethal
- SAAMO Gent vzw, represented by Tijl Meheus
- SeTIS Bruxelles, represented by Nicolas Bruwier
- SIMA asbl, represented by Ali Cicek
- Steunpunt Mens en Samenleving (SAM vzw), represented by Cis De Waele
- Steunpunt tot bestrijding van armoede, bestaansonzekerheid en sociale uitsluiting, represented by David de Vaal
- Strategisch Plan Geletterdheid (Vocvo vzw)
- Symfoon - Vlaams blinden- en slechtziendenplatform
- vzw TolBO, represented by Mark Van Assche and Pierre Van Eeckhout
- Unia, represented by Linde Van Ishoven
- VeBeS vzw (Vereniging voor Blinden en Slechtzienden), represented by Eric Van Damme
- Ville de Verviers
- Visual Box vzw, represented by Jorn Rijckaert and Jaron Garitte
- Vlaams Instituut Gezond Leven
- Vlaamse Gemeenschapscommissie (VGC), represented by Katrien Verbeek and Janna Moonens
- Vlaamse Logo's, represented by Uschi Nys (Logo Limburg)
- Vrienden der Blinden vzw, represented by Elke Swinnen
- VRT, represented by Geertje De Ceuleneer
- vzw Divers Leuven, represented by Eline Schreurs
- Wablief/Vocvo vzw, represented by Inge Van Acker, Farida Barki and Carolien Fuchs
- De Zuidpoort vzw, represented by Steven Van Hemelryck and Marlies Schoonbaert

4 METHODOLOGICAL DESIGN AND PROJECT OUTLINE

As the ICC project's objectives pertain to the gathering of knowledge and the formulation of recommendations and guidelines on the most optimal form and channel(s) for more inclusive and accessible COVID-19 governmental crisis communication, a **mixed methodological design** was used in which qualitative as well as quantitative evidence was gathered from different core sources and subsequently compared and synthesised. The project's over-arching methodological approach is visualised in Figure 1.

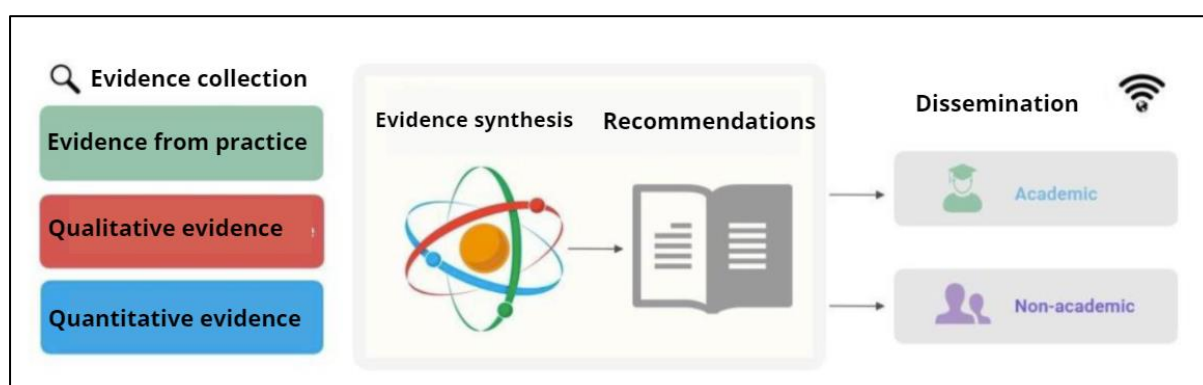


Figure 1 Methodological design of the ICC project.

4.1 QUANTITATIVE EVIDENCE

Quantitative evidence from effectiveness studies was gathered through a **rapid systematic literature review** of international studies addressing inclusive and accessible crisis communication in a pandemic context. Subsequently, these studies were translated into a context-specific guideline in a participatory process with an expert panel (following the methodology of previous guideline development procedures in the Belgian context: Bekkering et al., 2014; De Buck, Vandekerckhove & Hannes, 2018). This guideline will be submitted to the Belgian Centre for Evidence-based medicine (CEBAM). CEBAM is an accredited agency for external validation of practice and policy guidelines and facilitates the process of assessing methodological rigour of the evidence presented and transparency of the guideline development process (Brouwers, et al. 2010). The results of these research activities carried out by KULeuven are reported in **PART 2** of this report.

4.2 EVIDENCE FROM PRACTICE

Evidence from practice was collected through a process of **collaborative product development** in which inclusive communication products regarding COVID-19 in Belgium were experimentally developed. 'Practice' in this sense should thus be understood in a narrow sense as pertaining to the activities of communication product development (as undertaken by NCCN during the COVID-19 outbreak in Belgium). The aim of this set of project activities was two-fold: (1) to evaluate the provision of (re)translations and access services in the supply of COVID-19 communication provided by Atlas Integratie & Inburgering Antwerpen, on behalf of the National Crisis Centre (NCCN) and (2) to develop more inclusive and accessible COVID-19 crisis communication

products in line with the (intermediary) project insights which could be put to immediate use in the fight against COVID-19 in Belgium.

This collaborative product development included the following concrete **steps**:

- a) describing the current communication workflow and strategy regarding COVID-19 of the federal government;
- b) providing an overview and initial analysis of the (re)translations and access services provided by the federal government;
- c) developing and improving communication products within the workflow of Atlas/NCCN based on progressive insights from other project activities to support ongoing crisis communication efforts, and
- d) involving advisory board members, users and experts in the development and improvement of products.

The products analysed and developed in this phase, also served as input for the roundtable discussion and focus group discussions that were organised at different stages of the project (SEE SECTION 4.3 IN THIS CHAPTER). The lessons learned from this product development phase carried out by UAntwerpen in collaboration with KULeuven, NCCN and Atlas are reported in **PART 3**.

4.3 QUALITATIVE EVIDENCE: INTERMEDIARIES AND END-USERS

The collection of qualitative evidence was organised in **three stages**, planned via an **iterative process** aligned with the product development phase (SEE 4.2 IN THIS CHAPTER). The results of these research activities are reported in PART 4 and PART 5 of this report.

In the first stage, evidence was gathered by bringing together the **already existing information and recommendations** on the accessibility of governmental COVID-19 communication in Belgium by societal intermediaries⁵ in the project's advisory board, based on their expertise and professional experiences during the first months of the COVID-19 outbreak in Belgium. This included internal evaluations, best practice examples, policy recommendations and other reports. This evidence was gathered through consulting the advisory board by means of a survey, dedicated to the evaluation of the accessibility of existing governmental COVID-19 crisis communication to the target groups of the project, and by inventorying, contrasting and synthesising the already existing information that the advisory board members documented. The results of these research activities carried out by UAntwerpen for Flanders and by UCLouvain for Brussels and Wallonia are reported in **PART 4**, Chapters 1 and 2, respectively.

In the second stage, the project focused on the evaluation of the current communication provided by Atlas Integratie & Inburgering, on behalf of the NCCN, during **roundtable discussions** with intermediaries, representatives and experts-by-experience recruited from the advisory board. During the roundtable discussions, participants evaluated and discussed the form and channel of existing and newly developed communication products and formulated recommendations based on their professional experiences. The results of these research activities carried out by

⁵ In this report, the term 'intermediaries' is used in a generic sense. It includes user-representative organisations, experts-by-experience, civil society organisations, municipalities, governmental organisations, non-profit organisations, foundations, federations, local authorities, etc.

Thomas More for Flanders and UCLouvain for Brussels and Wallonia are reported in **PART 4**, Chapters 3 and 4, respectively.

In the third stage of the project, **focus group discussions** with end-users of the different target groups were conducted. In these focus group discussions, a selection of communication products were discussed and evaluated with the participants, who were also encouraged to comment on the form and channels of governmental COVID-19 communication in Belgium. The results of these research activities carried out by Thomas More for Flanders and UCLouvain for Brussels and Wallonia are reported in **PART 5**, Chapters 1 and 2, respectively.

4.4 EVIDENCE SYNTHESIS

The final part in this report is dedicated to the **synthesis of all quantitative and qualitative evidence** collected. The comparative synthesis of all the gathered information and evidence in each of the project's activities was carried out systematically by the UAntwerpen team, using a document analytical and focused thematic content analytical approach (Anderson, 2007; Bowen, 2009; Erlingsson & Brysiewicz, 2017). The outcomes of this synthesis are presented in **PART 6** of this report, specifically in the form of policy recommendations and guidelines that are aimed to support governments and stakeholders in the development of a more inclusive COVID-19 crisis communication strategy in Belgium.

4.5 STRUCTURE OF THE REPORT

Each chapter in the different parts of this report presents a specific research activity carried out by (a) partner(s) in the consortium, as described above, and contains the final report on the research activities as produced during the project's lifetime by the researchers involved. Each chapter mentions the names, affiliation and contributions of the respective author(s). As a result, each chapter can be read independently from one another, and may contain some overlap or repetition with other chapters.

PART 2

**QUANTITATIVE
EVIDENCE:
EVALUATION
OF INTERNATIONAL,
QUANTITATIVE STUDIES**

1 RAPID SYSTEMATIC LITERATURE REVIEW

1.1 INTRODUCTION

This chapter discusses the **rapid systematic literature review of studies on inclusive crisis communication in a pandemic context** carried out by the KU Leuven team Pieter Thyssen and Daniëlle Wopereis under the lead of Karin Hannes as part of the project's first Work Package.

The **KU Leuven team** set up the rapid review protocol and methodology, collected, screened and analysed the data for quality, drafted and finalised the report. T. Vandendriessche, K. Tuand, and K. Paque are the biomedical reference librarians of the KU Leuven Libraries – 2Bergen – learning Centre Désiré Collen (Leuven, Belgium) which helped with the development of the search strategy. A. Vandamme provided critical comments on the virological and epidemiological aspects of this study, and helped with the development of the first concept in our search strategy on the epidemic/pandemic context. M. Vandenbroucke, N. Reviers, D. Wopereis, W. van de Veerdonk, S. Talboom, B. Geerinck, T. Bengough, L. Vermeire, G. Vercauteren, F. De Malsche, C. Wermuth, A-S. Bafort, and A. Jankowska were part of the abstract screening team. S. Dawson and T. Bengough were part of the quality appraisal team.

The aim of this review project is to synthesise evidence on strategies used to improve inclusive COVID-19 crisis communication in terms of form, channel and outreach. We focus particularly on strategies that acknowledge the (multi-)linguistic and socio-cultural diversity, sensory limitations and degree of literacy of the world population and that have been developed in response to a pandemic context. We will do so by summarising the evidence on the effectiveness and applicability of crisis communication strategies that target the inclusion of these vulnerable and minority groups in society.

This chapter is based on the content of the following project deliverable report:

Hannes, K. & P. Thyssen. *Internal report on the scientific evidence feeding into the guideline development process: rapid systematic literature review. Report on Work Package 1.* 15 July 2021.

The chapter starts with a brief description of the pandemic context and a state-of-the-art, before introducing our logic model in and research question. This is followed by a discussion of the results of the review process.

1.1.1 PANDEMIC CONTEXT

The project studies inclusive communication in a very specific context, namely in a **pandemic or epidemic context**. Other contexts requiring crisis communication, such as natural disasters (e.g. volcanic eruptions, floods, tsunamis, droughts, tornados, earthquakes, wildfires, landslides, etc.) as well as environmental and ecological disasters (e.g. oil spills, chemical waste dumps, the dioxin crisis, the Chernobyl 1986 and Fukushima 2011 nuclear meltdown, etc.), or even terrorism, were not taken into account for this rapid review.

We analysed and evaluated inclusive crisis communication against the background of disease outbreaks. The World Health Organisation (WHO) has identified numerous infectious diseases that have the potential to become international threats. Based on their work, we compiled an

initial list of 23 pandemic or epidemic diseases.⁶ We subsequently removed all zoonotic diseases.⁷ No distinctions were made on the basis of the pathogen (e.g. virus or bacterium) or whether the disease is spread via saliva or aerosols. This resulted in a final list of 12 pandemic or epidemic diseases:

Ebola Virus Disease, Lassa Fever, Avian and other Zoonotic Influenza, Seasonal Influenza, Pandemic Influenza, Middle East Respiratory Syndrome (MERS), Meningococcal Meningitis, Hendra Virus Infection, Nipah Virus Infection, Novel Coronavirus (2019-nCoV), Severe Acute Respiratory Syndrome (SARS), and Smallpox.

1.1.2 STATE OF THE ART

In this section, we summarise the currently existing evidence on inclusive crisis communication, informed by the literature from cognitive and social psychology, sociology and applied risk communication. Specific attention is paid to the needs of vulnerable populations who experience sensory, linguistic, cultural or textual barriers, i.e., foreign-language speakers, people with low literacy skills, people with low socioeconomic status and people with sensory (auditory or visual) impairments. In what follows, we thus summarise the currently existing evidence on the effectiveness and applicability of different crisis communication strategies that target the inclusion of these vulnerable and minority groups in society.

1.1.2.1 BIOLOGICAL NATURAL DISASTERS

Crisis and risk communications are event specific and can happen before, during, or after the event (Glik, 2007). With respect to natural disasters, a distinction can be made between **biological natural disasters** (e.g. epidemics and pandemics) and **weather-related natural disasters** (e.g. volcanic eruptions, floods, tsunamis, droughts, tornados, earthquakes, wildfires, landslides, etc.) as they typically differ in scale, duration and intensity. Weather-related natural disasters are generally limited in time, and demand attention and action over a relatively short period of time (Heilbrun et al., 2010). Biological natural disasters, on the other hand, are longer-lasting, and require attention and action over much longer periods of time (Rebmann et al., 2013). These differences influence the emotional response and sensitivity of the population with respect to both types of natural disasters (Dzigbede et al., 2020; Glik, 2007). We here focus on biological natural disasters.

1.1.2.2 THE NEED FOR INCLUSIVE CRISIS COMMUNICATION

In the event of a biological natural disaster, such as a pandemic or an epidemic, citizens actively seek information on how to act and deal with the imminent threat. What is more, as long as no treatments or vaccines are available, the control of a pandemic relies entirely on public health interventions, such as social distancing, contact tracing, mask wearing and lockdowns (Adhikari et al., 2020). **Public access to information** – the availability and accessibility of timely, high-

⁶ The initial list of pandemic and epidemic diseases contained the following diseases: Ebola Virus Disease, Lassa Fever, Crimean-Congo Haemorrhagic Fever (CCHF), Yellow Fever, Zika Virus Disease, Chikungunya, Avian and other Zoonotic Influenza, Seasonal Influenza, Pandemic Influenza, Middle East Respiratory Syndrome (MERS), Cholera, Monkeypox, Plague, Leptospirosis, Meningococcal Meningitis, Hendra Virus Infection, Marburg Virus Disease, Nipah Virus Infection, Novel Coronavirus (2019-nCoV), Rift Valley Fever, Severe Acute Respiratory Syndrome (SARS), Smallpox, Tularemia.

⁷ Zoonotic diseases are infectious diseases that are caused by a pathogen (bacterium, virus, parasite or prion) that jumps from animal to human. Examples are Yellow Fever (via mosquitoes) and the Plague (via fleas on rats).

quality information — is therefore vital in combating the outbreak of an infectious disease and ‘flattening the curve’.

According to Koinig (2020), the government plays a crucial role in managing a pandemic crisis by raising public awareness of the health threat, and providing the population with targeted and timely information about the various containment and mitigation measures that are being imposed. Crisis and risk communications are event specific and can happen before, during, or after the event (Glik, 2007). Good crisis communication informs, instructs and motivates; it builds trust in the authorities (Siegrist & Zingg, 2014) and dispels rumours and misinformation.

This requires intensive communicative efforts and effective communication strategies. Most importantly, these efforts and strategies should meet the specific communication needs of all populations to ensure that all layers of society are able to access, understand and comprehend the information being communicated (Kar & Cochran, 2019; Vaughan & Tinker, 2009). Indeed, as Hyland-Wood et al. (2021) observe, “there is no ‘one size fits all’ communications strategy to deliver information during a prolonged crisis”. To fulfil the aims of **inclusive crisis communication** means that *all* groups of citizens should be included and involved, and that the crisis communication be targeted, designed and adapted to their various needs.

Recent studies on the topic of crisis communication during the COVID-19 pandemic have shown, however, that not all groups of citizens are reached equally. There has been a disproportionate toll on vulnerable populations as most governments have failed to customise their crisis communication to these particular target groups. **Vulnerable populations** thus experience difficulties in accessing correct information, leading to an **asymmetry of information** where they are less informed than others (Waidyanatha, 2020). This, in turn, can result in unequal protection across society (Vaughan & Tinker, 2009).

This situation is only aggravated by the spread of misinformation. According to Zarcostas (2020), the outbreak of an epidemic or pandemic is accompanied by a tsunami of information. Tedros Adhanom Ghebreyesus, president and director general of the World Health Organisation, thus stated at the security conference in Munich on February 15 2020 that: “We are not only fighting with a pandemic, but are also fighting with an **infodemic**.”

Unfortunately, much of the non-official information is contaminated, distorted, inaccurate or just plain wrong. The spread of fake news, rumours, dis- and misinformation (Baines & Elliott, 2020) can result in much confusion and distrust, with potentially devastating consequences. According to Vaughan & Tinker (2020), vulnerable populations are most prone to fall for and share health-related misinformation.

The lack of targeted crisis communication and the spread of misinformation highlight the need for effective strategies and good communication practices for more inclusive crisis communication. We here summarise some of the evidence on different communication strategies for removing the various sensory, linguistic, cultural and/or textual barriers. In what follows, we only focus on communicative interventions on the form and channels of crisis communication messages with the aim of closing the communication gaps experienced by vulnerable populations.

The academic literature on this topic is relatively sparse. However, the COVID-19 pandemic has been an important catalyst for much recent scholarly work on how to render crisis

communication accessible to all, outlining various strategies, policies and recommendations, tailored for diverse audiences.

1.1.2.3 REMOVING SENSORY BARRIERS

One group that is particularly vulnerable in crisis times are **people with disabilities**. Previous studies have shown that it is much harder to reach out to and communicate with these people in crisis times (Battistin et al., 2021; Erikson et al., 2021). This is only complicated by a general lack of knowledge amongst governments, authorities, municipalities and companies about how to meet the needs of disabled people. As such, people with disabilities run a much higher risk of being disproportionately affected by a crisis (Campbell et al., 2009).

This situation can cause “political poverty” by being cut off from the democratic conversation, as well as loneliness and isolation, all of which leads to increased vulnerabilities (Erikson et al., 2021). Despite these important knowledge gaps and vulnerabilities in society, research focusing on such vulnerable groups remains rather sparse. For this rapid review, we only looked at studies focussing on people with a permanent or temporary **visual or auditory impairment**, such as blindness, hearing loss or deafness. We did not focus on people with a mental illness, neuropsychiatric disability or mobility impairment.

The American Association on Health and Disability (AAHD) conducted an online survey on COVID-19 and disability during the first wave of the pandemic (AAHD, 2020). The survey included a set of questions on the **preferred channels for accessing information** about the COVID-19 pandemic. Of the people with hearing impairment, “34% [...] said the Internet was the most important source of information, followed by Television (26%) and Health Care Providers and Relatives (21%).”⁸

For persons with a visual impairment, “33% of respondents said the Television was the most important source of information, followed by the Internet (28%) and Radio (15%).” This is in line with another survey performed by Holloway, Butler, Reinders and Marriott (2020) who observed that people with visual impairment in Australia access information about the COVID-19 pandemic mostly through television and radio news (with government and health institutions being the most popular sources of information).

Naylor et al. (2021) studied the effects of the COVID-19 lockdown in Glasgow on people with hearing loss. They indicated that people who are hard of hearing experienced difficulties conversing with people in face masks due to muffled sound and lack of speech-reading cues. Naylor et al. (2021) therefore suggested the adoption of **transparent face masks** to alleviate some of the communicative difficulties experienced by this population. The same suggestion was also made by Mörchen, Kapoor and Varughese (2020) in a study focussing on communication with eye health patients during the pandemic.

Although listeners with hearing loss did not experience major obstacles in following TV and radio updates about the evolving pandemic, Naylor et al. (2021) nevertheless suggested the use of live subtitles on video calls.

⁸ Print Media was at 6%, Relatives and Social Media at 5%, and Friends, Radio, and Others at 1%.

1.1.2.4 REMOVING LINGUISTIC BARRIERS

Another group that faces considerable challenges in crisis times are foreign-language speakers. In our super-diverse societies, far from all residents of a particular country are fully master the official language(s) of the country. Foreign-language speakers and language learners may not always master the local official language(s) at a sufficiently high proficiency level to understand the government's crisis communication messages. **Multilingual crisis communication** (*i.e.* the translation of crisis communication messages into various languages) is therefore an important prerequisite to bridge these language barriers and to ensure that the entire population of a country is reached.

Although the role and importance of translation and multilingual crisis communication in multilingual and multicultural societies has been highlighted before (O'Brien & Federici, 2019), it remained underestimated, if not unrecognised during the COVID-19 pandemic. In a recent study aimed at assessing the inclusion of migrants in COVID-19 prevention measures, Maldonado et al. (2020) investigated whether governmental risk communications were available in common migrant languages across Europe. They identified clear gaps in the availability of translated COVID-19 risk communications across Europe, excluding migrants from receiving the necessary information in their own migrant languages.

Chen (2020) explored the availability of multilingual public health messages against the spread of COVID-19 in Taiwan between January and April 2020, with similar results. Indigenous populations faced significant language barriers, and were thus excluded from most public health communications. In yet another study, Zheng (2020) recounted the translation efforts of a group of university student volunteers in Shanghai to meet the multilingual needs of their local communities.

In a special issue of the journal *Multilingua* on *Linguistic diversity in a time of crisis: Language challenges of the COVID-19 pandemic*, Piller et al. (2020) identify three core reasons for the lack of multilingual crisis communication and the "large-scale exclusion of linguistic minorities from timely high-quality information" during the COVID-19 pandemic: (1) the dominance of English-centric global mass communication, (2) the longstanding devaluation of minoritised languages, and (3) the failure to consider the importance of multilingual repertoires for building trust and resilient communities.

According to Dreisbach & Mendoza-Dreisbach (2021) a new field in linguistics is therefore needed to tackle public health translation in emergency situations: **emergency linguistics**. In response to the current lack of multilingual crisis communication, a number of recommendations have been advanced. Maldonado et al. (2020) recommend working with non-governmental organisations (NGOs) and migrant community groups. O'Brien et al. (2021) concur that one should "establish strategic partnerships with relevant not-for-profit organisations in advance of crises so that communities are more likely to receive crucial information more rapidly and that they might have a higher level of trust in that information."

1.1.2.5 REMOVING CULTURAL BARRIERS

The global population is growing ever more heterogeneous, due to differences in gender, age, race, religion, ethnicity and cultural background (e.g. different life-styles, norms, values or ways of understanding the world). Different cultures will respond to messages differently. Policy makers

and communication professionals therefore need to acknowledge the cultural backgrounds and diversity of their target audiences, and adjust their crisis communication strategies accordingly.

Different strategies have been developed for optimal crisis communication in a **culturally diverse society** (Kleineidam, 2019). This could involve the use of different channels and communication platforms, differences in the speed of speaking, eye contact with the audience, facial expressions, and differences in tone of voice (e.g. an empathetic, compassionate or supportive tone versus a serious, clinical or reserved tone). Wertz and Kim (2010), for example, observed that Korean government uses a more aggressive message strategy than US government in times of crisis. Similar differences were observed by Low et al. (2011) between the communication strategies of Western and Asian governments.

According to Oliveira (2013), **culturally adjusted crisis strategies** are not yet sufficiently adopted. Failure to consider cultural factors may lead to offensive feelings, misunderstandings, criticism and unwillingness to follow the various mitigation and containment measures.

1.1.2.6 REMOVING TEXTUAL BARRIERS

Textual barriers can be removed through the use of plain language or easy-to-read language.

Plain language (also called plain writing or plain English) is a style of writing that is easier to read, understand and use, as compared to normal language, as it avoids verbose, convoluted language and jargon. It is used to reach all audiences. **Easy-to-read language** on the other hand is specifically designed to meet the needs of people with cognitive and learning disabilities, as well as language learners or people with low literacy skills. But also migrants, people with severe social problems or the elderly can benefit from easy-to-read language (Matausch et al., 2012). In the Belgian context, the term Easy Language (“Klare Taal” in Dutch and “FALC” (“facile à lire et à comprendre”) in French) is used. In the context of the ICC project, the term Easy Language is therefore used as well.

The World Health Organisation (WHO) observes that if people have to read a “message several times to understand it, they are not likely to act on the advice and guidance in the message” (WHO, 2021). Basch et al. (2020) add that “if the information is too complex to interpret [...], this can contribute to feelings of panic” (p. 635). In an epidemic or pandemic situation, it is therefore crucial that all technical information is translated into plain language to ensure that the target audience (i.e. non-experts) can easily understand the crisis communication messages.

To that aim, WHO has made the following suggestions:

- organise information so the most important points come first;
- create a single overarching communication outcome (SOCO) that defines the desired outcome, for example, behaviour change;
- break long and complicated information into understandable portions;
- use simple language to explain the meaning of technical terms; and
- format documents with plenty of white space so they are easy to read.

Basch et al. (2020) concur that all “messages about COVID-19 must be readable at an “easy” level, and must contain clear guidelines for behavior” (p. 637).

Although it has become standard practice to translate crisis communication messages into plain or easy-to-read language, very little research has been performed on the readability of COVID-19 crisis communication messages. One exception is Basch et al. (2020) who assessed the readability of information posted on the Internet about the COVID-19 pandemic. Multiple

readability tests were conducted on 100 different English language websites.⁹ To have maximum impact, crisis communication messages should be readable at the 6th grade reading level (McKenzie et al., 2017). However, four of the five measures (GFI, CLI, SMOG, FRE) found that readability on these websites exceeded the 10th grade reading level indicating that these texts would be difficult to read for the average American.

1.1.2.7 CONCLUSION

“People’s engagement with and response to public health information and messaging is heavily influenced by their cultural and social identity, age, gender, and access to resources” (Hyland-Wood et. al., 2021, p. 2) There is indeed great individual variation in the needs of foreign-language speakers, people with low literacy skills, people with low socioeconomic status and people with sensory (auditory or visual) impairments.

This makes it challenging to start from a general crisis plan with only one crisis communication strategy. In order to reach all groups equally, inclusive crisis communication strategies are needed which focus on removing or responding to the various sensory, linguistic, cultural and textual barriers.

1.1.3 LOGIC MODEL

The analytic framework that has guided the rapid review process is the logic model presented in Figure 2. Several logic models for crisis communication have been proposed in the past. One example is the Emergency Risk Communication conceptual model by Seeger et al. (2018) which illustrates the wider context in which this project is embedded, including the message content and aspects of behaviour change. Against the above sketched background and taking into account the project delineation, we have developed the logic model in Figure 2 to represent the process studied. Our logic model identifies the most important factors to inclusive crisis communication. It furthermore clarifies some of our implicit assumptions, and makes explicit the link between short-term and long-term outcomes.

⁹ The following readability tests were performed: Coleman-Liau Index (CLI), Gunning Fog Index (GFI), the Simple Measure of Gobbledygook (SMOG) Grade Level, Flesch-Kincaid Grade Level (FKGL), and Flesch-Kincaid Reading Ease (FRE).

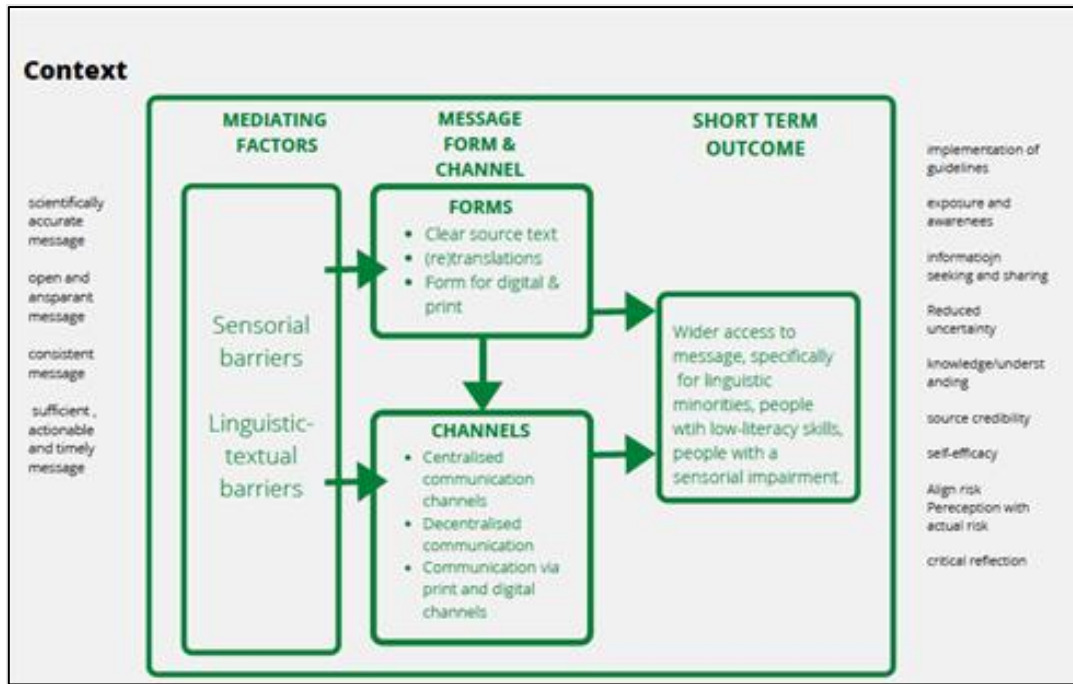


Figure 2 Logic model for inclusive crisis communication (demarcated in green).

1.1.4 RESEARCH QUESTION

In order to formulate a researchable question, we begin with a PICO(ST) analysis. PICO(ST) is a useful tool that facilitates the identification of the different key elements that should be present in a research question. PICO(ST) is an acronym standing for Population, Intervention, Comparison, Outcome, Setting and Timing.

PICO(ST) analysis

Population: Foreign-language speakers and/or people with low literacy skills and/or people with low socioeconomic status and/or people with an auditory or visual impairment.

Intervention: Communicative interventions on the level of the form, channel and outreach in crisis communication;

Comparison: Standard crisis communication, or other interventions in relation to form (e.g. subtitles versus voice-over, static versus dynamic pictorial language), channel (e.g. online versus print) or outreach, or no communication at all;

Outcome: The general outcome we strive for is **inclusive crisis communication**.

1. The first specific outcome we will evaluate is **accessibility**. In the most optimal condition this is the situation in which all sensory, cognitive, linguistic and cultural barriers have been overcome.
2. The second specific outcome we will evaluate is **exposure**. This is the situation in which the actual outreach potential of the communication strategy has been achieved in the target group.

As indicated by other reviews, optimal accessibility and exposure are necessary but not sufficient conditions for behaviour change to occur in the long-term (i.e. the willingness to be tested and/or vaccinated, or to follow the various containment and mitigation measures that are imposed, etc.). In this review we only focus on the short-term outcomes.

Setting and Timing: epidemic/pandemic context or the current COVID-19 crisis communication.

Research question

Based on the above PICO(ST) analysis, we can formulate our research question as follows:

For persons faced with sensory, linguistic, cultural and/or textual barriers, which communicative interventions on the level of the form, channel and outreach in crisis communication messages are the most effective and applicable in an epidemic or pandemic context, from a comparative perspective?

1.2 METHOD

Given the growing need for knowledge synthesis, systematic reviews are commonly used to inform and strengthen health policymaking. However, systematic reviews typically take about 12-24 months to complete. In an emergency or crisis situation, such as the current COVID-19 pandemic, a more timely and cost-effective alternative is called for. Rapid reviews offer an efficient solution. By simplifying the approach, without thereby sacrificing methodological rigor and transparency, they only take about 4 months to complete. This can be done in a number of ways: (i) by reducing the number of databases, (ii) by assigning a single reviewer, (iii) by excluding

grey literature, and (iv) by narrowing the scope of the review. For this particular rapid review, we opted for a combination of (i) and (iii) by reducing the number of databases and excluding all grey literature.

Our approach and process follow the principles and guidelines in the WHO Practical Guide on Rapid Reviews to Strengthen Health Policy and Systems (WHO, 2017). The rapid review protocol consists of several steps, as explained in Sections 1.21 to 1.2.7.

1.2.1 A TWO PHASED REVIEW PROCESS

This study was conducted in two phases. In the first phase, relevant papers published until May 17, 2021 were retrieved from 7 major electronic databases, screened and assessed for quality. After deletion of duplicates, systematic reviews and meta-analyses the first phase resulted in 5825 retrieved studies, eligible for screening and quality assessment. Since the first phase resulted in a very limited number of relevant papers, and considering the increased popularity of crisis communication as a topic during the current global pandemic, a rapid review update was initiated in an attempt to find additional sources at a later stage. In the second study phase, we retrieved, screened and assessed papers that were published between May 17 and October 18, 2021. During the second phase, we retrieved 2507 new studies published after May 17, 2021. The second phase resulted in 1675 new studies. We followed the same methodological strategy for both phases (outlined below).

1.2.2 SEARCH STRATEGY

Research on crisis communication involves multiple academic disciplines. Given the multi-, and oftentimes inter- and transdisciplinary nature of this research area, we searched 7 major electronic bibliographic databases for relevant papers: CINAHL (EBSCO), Web of Science Core Collection (including the ISI Social Science Index and Arts and Humanities Index), Medline/PubMed, Embase, ERIC (OVID), Cochrane CENTRAL and Cochrane CDSR.¹⁰

The search strategy was developed in collaboration with three biomedical reference librarians of the KU Leuven Libraries – 2Bergen – learning Centre Désiré Collen (Leuven, Belgium). The full search strategy and the complete list of search terms for Medline/PubMed can be found in the Appendix (see Appendix A).

1.2.3 SEARCH TERMS

We kept the search strategy relatively broad (high recall, low precision) by only using the intervention (I) and context (C) of our PICO as the main concepts of our research question. For studies to be considered for inclusion they had to (1) be conducted in an epidemic and/or pandemic context, (2) report on the topic of crisis communication, (3) evaluate the form, channel and/or outreach of crisis communication messages, and (4) apply a comparative study design.

We first developed and fine-tuned the search strategy in PubMed before translating it to the other databases. For each of the four conditions above, we looked for specific Medical Subject Heading (MeSH) terms, synonyms and related terms. The first search string thus consisted of all terms that capture the epidemic and/or pandemic context (Context). The second and third search strings included terms that characterise interventions in crisis communication

¹⁰ No manual searches in the reference lists of the included studies were performed.

(Intervention). The fourth search string represented the study designs under review. We finally applied Boolean logic to combine the different search terms and concepts (Figure 3).

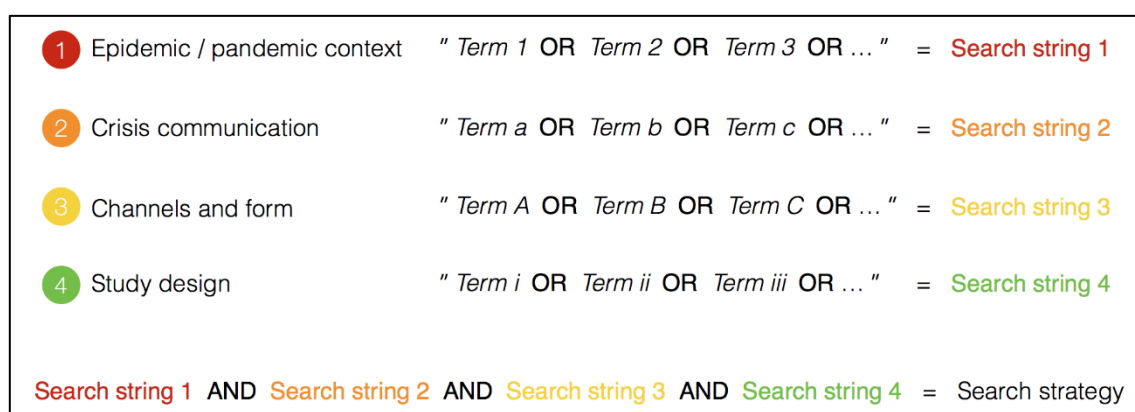


Figure 3 Schematic overview of the search strategy.

1.2.4 STUDY RETRIEVAL

Papers with at least one keyword from each search string, either in titles, abstracts and/or topics/keywords (depending on the search engine's design) were retrieved.

The search results from each database were exported and merged into the citation management software EndNote (version X9), yielding a total of 9796 retrieved studies for phase 1 (see Figure 4 and Figure 5 for the Prisma charts) and 2507 studies for phase 2. 2510 (phase 1) and 539 (phase 2) duplicates were subsequently removed following the first 11 steps in the protocol developed by Leeds University Library, as summarised by Falconer (2018). A further 1461 (phase 1) and 293 (phase 2) systematic reviews and meta-analyses were removed (via a search in EndNote for 'review' and 'meta-analysis' in the title, and a search in EndNote for reviews in the Type of Work column). This left 5825 unique studies for the abstract screening in phase 1 and 1675 unique studies for the abstract screening in phase 2.

1.2.5 ELIGIBILITY CRITERIA

The studies selected have to meet certain eligibility criteria (see Appendix B for the screening tool and Appendix C for the eligibility criteria):

- The **inclusion criteria** for our search were the following: the study (a) is written in English, (b) addresses crisis communication in the title, abstract, discussion and/or conclusion section, (c) focusses on crisis communication in an epidemic or pandemic context, (d) analyses which interventions on the level of form, channel and/or outreach of the message are most effective in removing sensory, linguistic, cultural and/or textual barriers and (e) is a peer-reviewed, full-length research study, article or paper of the following type: RCT, evaluation, clinical, intervention, observational, comparative, before and after, preventive, program, controlled or non-random. Studies were considered most fitting when they focus on foreign-language speakers and/or people with low literacy skills, and/or people with low socioeconomic status and/or people with an auditory or visual impairment. Studies that did not focus on these specific target groups were, due to the low quantity of studies that concern these target groups, included. In other words; the

population inclusion criterion was ‘relaxed’ during the screening phase. During the guideline process following this rapid review, it was discussed whether the results in these studies could or could not be extrapolated to target audiences who face communication barriers.

- The **exclusion criteria** for our search were the following: the study (a) is in a language other than English, (b) does not deal with the topic of crisis communication (c) focusses on crisis communication in the context of natural disasters (volcanic eruptions, tsunamis, earthquake, wildfires, landslides, etc.), (d) analyses which interventions on the level of the content of the message are most effective in removing sensory, linguistic, cultural and/or textual barriers and/or focusses on behaviour change, and (e) is a qualitative study, thesis, dissertation, research report, conference paper, book review, editorial, or opinion piece.

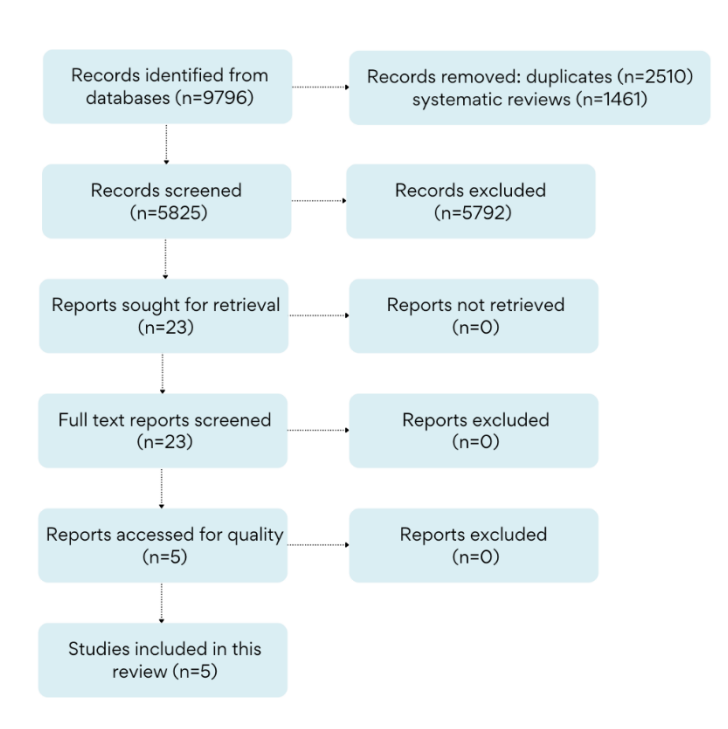


Figure 4 PRISMA 2020 flow diagram for first phase of the rapid review.
Notice that the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement, published in 2009, was recently replaced by the 2020 statement (Page et al., 2021).

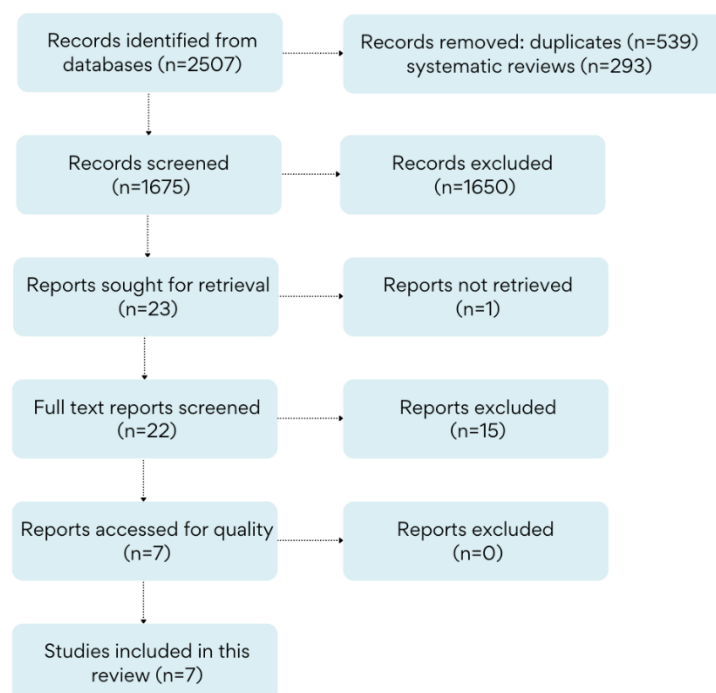


Figure 5 PRISMA 2020 flow diagram for second ('update') phase of the rapid review. Notice that the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement, published in 2009, was recently replaced by the 2020 statement (Page et al., 2021).

1.2.6 ABSTRACT SCREENING

Based on the above eligibility criteria, we screened the title, abstract and keywords of all papers. We hereby followed the best practices guidelines for abstract screening, as outlined by Polanin et al. (2019).

To facilitate the screening process, an abstract screening tool was developed (see Appendix B) consisting of six clear and concise questions, which were organised in a hierarchical fashion from easiest to most difficult. Use was also made of Rayyan, a web and mobile screening app for systematic reviews (Ouzzani et al., 2016).

In order to avoid random and/or systematic errors in the study selection, and in order to ensure that the above eligibility criteria were applied consistently, a double-screening approach was adopted. However, given the limited time and budget, and resource intensity of conventional double-screening, we opted for a methodological shortcut where 20% of all papers were double-screened and interrater agreement rates were calculated.

Phase 1

After a pilot test and training with the entire screening team (consisting of 14 screeners in total), in phase 1, a first single screening was performed by 12 members of the abstract screening team, where every member was asked to screen a separate subset of the total set of retrieved studies.

20% of every subset of studies was subsequently double-screened by one of the review team leaders. The screening process was continuously monitored and agreement rates were

calculated for every individual and for the group as a whole (Table 1).¹¹ A distinction was furthermore made between major and minor conflicts. A major conflict occurs when screener A has included a study whereas screener B has excluded the study. A minor conflict occurs when screener A has either included or excluded a study, whereas screener B remains undecided (by answering 'maybe' in Rayyan).

Such reliability statistics are crucial as high disagreement rates (less than 75% agreement) may be indicative of systemic errors or inexperienced screeners. In other words, confidence in the screening results is a function of the amount of disagreement. McHugh (2012) recommends 80% agreement as the minimum acceptable interrater agreement.

In our case, individual agreement rates varied between 88% and 100% agreement, with an average group agreement of 96% (Table 1), bolstering our confidence in the individual screening results. In addition, the majority of conflicts were minor conflicts (67% to be precise, and up to 88% if the conflicts with screener 8 are ignored).

Of course, screening disagreements cannot be avoided. A total of 17 major and 32 minor conflicts were observed. These discrepancies were resolved by a third, experienced screener. Note that this reconciliation only occurred after all abstracts had been screened by the abstract screening team.

Screener	Major conflicts	Minor conflicts	Agreement rate
Screener 1	1	4	95%
Screener 2	0	3	97%
Screener 3	1	6	93%
Screener 4	1	0	99%
Screener 5	1	2	97%
Screener 6	0	4	96%
Screener 7	0	2	98%
Screener 8	12	0	88%
Screener 9	0	2	98%
Screener 10	1	4	95%
Screener 11	0	0	100%
Screener 12	0	8	92%

Table 1 Interrater agreements phase 1. The individual agreement rates.

All included studies were also double-checked by the third screener, specifically for the correct study design. Of the 55 studies that were initially included by the abstract screening team, only 23 studies could be retained for the critical appraisal, as all other studies reported a wrong study design.

Phase 2

In phase 2, the first single screening was performed by 1 member of the abstract screening team and 20% of the subset was double screened. Phase 2 reached an agreement rate of 95%, with only minor conflicts.

¹¹ The interrater agreement (also known as percent agreement or IRA) is defined as the degree to which scores/ratings are identical (Gisev et al. 2013). In other words, IRA = number of concordant responses / total number of responses x 100%.

1.2.7 QUALITY APPRAISAL

Four independent reviewers screened the full-texts of the 23 (phase 1) and 22 (phase 2) remaining studies to identify eligible articles. In order to assess the quality of the studies, use was made of the CASP Randomised Controlled Trial Standard Checklist (CASP 2020, see Appendix D). Four aspects, in particular, were initially considered: (1) Is the basic study design valid for a randomised controlled trial?, (2) Was the study methodologically sound?, (3) What are the results?, and (4) Will the results help locally?

The CASP Checklist is not designed to be used as a scoring system. We decided that each study, at a minimum, had to comply with the criteria outlined in the first two sections of the CASP checklist (*i.e.* a valid study design and sound methodology) in order to be considered for inclusion in the rapid review. Disagreements between 2 reviewers were resolved by discussion and consensus.

The outcome of the assessment of the quality of the relevant studies is listed in Tables 2 and 3. Of the 23 (phase 1) and 22 (phase 2) studies that were included for the critical appraisal, 21 studies (phase 1) and 15 studies (phase 2) eventually did not meet the eligibility criteria when considering the full text. Most were excluded on the basis of a wrong study design, although many also lacked a correct topic, focus, context or population.

In the end, only five studies were eligible and appraised for their quality with the help of the CASP Checklist, and both met the quality criteria in phase 1. The second phase led to seven appraised studies. The final set of studies that were included for the rapid systematic literature review are listed in Section 1.3 and form the end result of this work package.

Study	Valid design	Sound methodology	Conclusion	Remarks
1. Kwok et al. (2021)	N	N	R1: Excluded	Wrong study design and topic
2. King & Lazard (2020)	N	N	R1: Excluded	Wrong study design
3. Bora et al. (2018)	N	N	R1: Excluded	Wrong study design
4. Choong et al. (2021)	N	N	R1: Excluded	Wrong study design and topic
5. Mishra & Dexter (2020)	N	N	R1: Excluded	Wrong study design and topic
6. Hillyer et al. (2021)	N	N	R1: Excluded	Wrong study design
7. Wilke et al. (2020)	N	N	R1: Excluded	Wrong study design and topic
8. Boonchutima et al. (2019)	N	N	R1: Excluded	Wrong study design
9. Okuhara et al. (2020)	Y	Y	R1: Included	
10. Dhawan et al. (2021)	N	N	R1: Excluded	Wrong study design and topic
11. Roess et al. (2017)	N	N	R2: Excluded	Wrong study design and topic
12. Ortega et al. (2020)	N	N	R2: Excluded	Wrong study design
13. O'Brien et al. (2018)	N	N	R2: Excluded	Wrong study design
14. Wieland et al. (2021)	N	N	R2: Excluded	Wrong study design
15. Piller et al. (2020)	N	N	R2: Excluded	Wrong study design
16. Edworthy et al. (2015)	N	Y	R2: Excluded	Wrong context
17. Basch et al. (2020)	N	N	R2: Excluded	Wrong study design
18. Merchant et al. (2021)	N	N	R2: Excluded	Wrong study design
19. Rousseau et al. (2015)	N	N	R2: Excluded	Wrong study design and population
20. Bekalu et al. (2018)	Y	Y	R2: Included	
21. Rahn et al. (2021)	Y	Y	R3: Excluded	Wrong focus
22. Viswanath et al. (2020)	N	N	R3: Excluded	Wrong study design
23. D'Souza et al. (2020)	N	Y	R3: Excluded	Wrong study design
24. Baseman et al., (2013)	Y	Y	R4: Included	
25. Baseman et al., (2015)	Y	Y	R4: Included	
26. Johnson et al. (2015)	Y	Y	R4: Included	

Table 2 Outcome of the assessment of the quality of the relevant studies.

Study	Valid design	Sound methodology	Conclusion	Remarks
1. Dennis et al. (2021)	Y	Y	R4: Included	
2. Mistree et al., (2021)	Y	Y	R4: Included	
3. Agley et al., (2021)	Y	Y	R4: Included	
4. Torres et al., (2021)	Y	Y	R4: Included	
5. Van Dormael et al., (2021)	Y	Y	R4: Included	
6. Bahety et al., (2021)	Y	Y	R4: Included	
7. Chen et al., (2020)	Y	Y	R4: Included	
8. Alonzo & Popescu (2021)	Y	Y	R4: Excluded	Wrong focus
9. Beyari (2021)	N	N	R4: Excluded	Wrong study design
10. Chang et al. (2021)	N	Y	R4: Excluded	Wrong topic
11. Choi (2021)	N	N	R4: Excluded	Wrong topic
12. Choi & Choung (2021)	N	N	R4: Excluded	Wrong focus
13. Diniz et al., (2021)	N	N	R4: Excluded	Wrong topic
14. Gold et al., (2021)	N	Y	R4: Excluded	Wrong focus
15. El Baradei et al. (2021)	N	N	R4: Excluded	Wrong study design
16. Liu et al. (2021)	N	N	R4: Excluded	Wrong topic
17. Kwok et al. (2015)	N	N	R4: Excluded	Wrong study design
18. Khamis & Geng (2021)	N	Y	R4: Excluded	Wrong study design
19. Kenney et al. (2020)	N	N	R4: Excluded	Wrong focus
20. Goetz & Christiaans (2020)	N	N	R4: Excluded	Wrong topic
21. Geni et al. (2021)	N	N	R4: Excluded	Wrong study design
22. Emojong (2021)	N	N	R4: Excluded	Wrong topic

Table 3 Outcome of the assessment of the quality of the relevant studies.

1.3 RESULTS

A total of 12 studies was included in this review. In alphabetical order, these were the following:

1. Agley, J., Xiao, Y., Thompson, E. E., & Golzarri-Arroyo, L. (2021). Using infographics to improve trust in science: a randomized pilot test. *BMC research notes*, 14(1), 1-6.
2. Bahety, G., Bauhoff, S., Patel, D., & Potter, J. (2021). Texts Don't Nudge: An Adaptive Trial to Prevent the Spread of COVID-19 in India.
3. Baseman, J. G., Revere, D., Painter, I., Toyaji, M., Thiede, H., & Duchin, J. (2013). Public health communications and alert fatigue. *BMC health services research*, 13, 295.
4. Baseman J., Revere D., Painter I., Oberle M., Duchin J., Thiede H., Nett R., MacEachern D., Stergachis A. (2016) A Randomized Controlled Trial of the Effectiveness of Traditional and Mobile Public Health Communications With Health Care Providers. *Disaster Med Public Health Prep.* Feb, 10(1), 98-107.
5. Bekalu M.A., Bigman C.A., McCloud R.F., Lin L.K., Viswanath K. (2018). The relative persuasiveness of narrative versus non-narrative health messages in public health emergency communication: Evidence from a field experiment. *Preventive Medicine* 111, 284-90.
<https://doi.org/10.1016/j.ypmed.2017.11.014>
6. Chen, L., Tang, H., Liao, S., & Hu, Y. (2020). e-Health Campaigns for Promoting Influenza Vaccination: Examining Effectiveness of Fear Appeal Messages from Different Sources. *Telemedicine and e-Health*.
7. Dennis, A. S., Moravec, P. L., Kim, A., & Dennis, A. R. (2021). Assessment of the Effectiveness of Identity-Based Public Health Announcements in Increasing the Likelihood of Complying With COVID-19 Guidelines: Randomized Controlled Cross-sectional Web-Based Study. *JMIR public health and surveillance*, 7(4), e25762.
8. Johnson, B. B., & Slovic, P. (2015). Fearing or fearsome Ebola communication? Keeping the public in the dark about possible post-21-day symptoms and infectiousness could backfire. *Health, Risk and Society*, 17(5), 458-471.
9. Mistree, D., Loyalka, P., Fairlie, R., Bhuradia, A., Angrish, M., Lin, J., ... & Bayat, V. (2021). Instructional interventions for improving COVID-19 knowledge, attitudes, behaviors: Evidence from a large-scale RCT in India. *Social Science & Medicine*, 276, 113846.

10. Okuhara T., Okada H., Kiuchi T. (2020). Examining persuasive message type to encourage staying at home during the COVID-19 pandemic and social lockdown: A randomized controlled study in Japan. *Patient Education and Counseling* 103(12), 2588-93.
<https://dx.doi.org/10.1016%2Fj.pec.2020.08.016>
11. Torres, C., Ogbu-Nwobodo, L., Alsan, M., Stanford, F. C., Banerjee, A., Breza, E., ... & COVID-19 Working Group. (2021). Effect of physician-delivered COVID-19 public health messages and messages acknowledging racial inequity on Black and White adults' knowledge, beliefs, and practices related to COVID-19: a randomized clinical trial. *JAMA Network Open*, 4(7), e2117115-e2117115.
12. Vandormael, A., Adam, M., Greuel, M., Gates, J., Favaretti, C., Hachaturyan, V., & Bärnighausen, T. (2021). The effect of a wordless, animated, social media video intervention on COVID-19 prevention: online randomized controlled trial. *JMIR public health and surveillance*, 7(7), e29060.

For each eligible study a summary sheet was made. The **summary sheet** includes information on the author, year and country, study design, sender and receiver (*i.e.* population) of the crisis communication messages, intervention, control, outcome, quality of the scientific evidence (as measured through the GRADE instrument that supports guideline development processes) and concluding remarks (see Tables 5 to 16).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Agley et al., 2021	Experimental: randomised controlled trial (pilot test)	Unknown for receiver	Adult Americans (n=100)	Participant were randomly assigned to five groups and watched an infographic concerning 'trust in science'. Believability of the infographic and trust in science was measured (before and after viewing the infographic).	All infographics were significantly believable. All infographics lead to more trust, but only the infographic that pictures the scientist as 'normal human being' significantly leads to more trust.	Very low	

Table 4 Summary sheet for Agley et al. (2021).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Bahety et al., 2021	Experimental: randomised controlled trial	Unknown for receiver	Citizens of rural Bihar, India (n=2283). Large part of the community (33% of women and 18% of men) is illiterate.	Participant were randomly assigned to 10 intervention groups and received text messages that differed in terms of content (private gain/loss versus public gain/loss) and timing (2x in the morning and versus 1x in the morning and 1x in the evening).	Text messages reached the target audience well. SMS did not have an effect on COVID-19 knowledge. Timing and content did not have a significant effect.	Very low	The study took place during a later stage of the pandemic; the sent out messages might not have had a significant effect as people already knew about the described measures.

Table 5 Summary sheet for Bahety et al. (2021).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Baseman et al., (2013), United States	Experimental: randomised controlled trial	Public health authority	Health care professionals (HCP's)	HCP's were randomised in 4 groups to receive 3 to 4 public health messages via email, fax or SMS or to receive no messages (=control). Follow-up interviews were conducted 5 to 10 days after message delivery date to check receipt of the message, recall of its content and credibility of the message/source.	O1: Recall rates were inversely proportional to the mean number of messages received per week. O2: Every increase of one message per week resulted in a statistically significant 41.2% decrease in the odds of recalling the content of the study message (p < 0.01), 95% CI.	Low	Sub-study of a larger RCT study to identify the most effective methods of communicating public health messages between public health agencies and health care providers / to evaluate and compare the effectiveness of mobile (SMS) and traditional (email, fax) communication strategies (REACH study: Rapid Emergency Alert Communication in Health).

Table 6 Summary sheet for Baseman et al. (2013).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Baseman et al., (2015), United States	Experimental: randomised controlled trial	Public health authority	Health care professionals (HCP's)	Intervention: HCPs (physicians, nurses, pharmacists, veterinarians) were randomly assigned to a group that received time sensitive quarterly messages via email, fax, or SMS, or a no-message control group. Follow-up phone interviews elicited information about message receipt, topic recall, and credibility and trustworthiness of message and source.	O1a. correct recall among three intervention groups. Email: 290/646 (44,9%) Fax: 238/628 (37,9%) SMS: 243/651 (37,3%) Conclusion: Higher rate of recall of message for messages sent by email than for those sent by fax or SMS. O1b. correct recall among three intervention groups. Email: 277/573 (48,3%) Fax: 182/377 (48,3%) SMS: 95/244 (38,9%) Conclusion: The rates of recall for the email and fax groups are similar (48.3%) and higher than for the SMS group (38.9%).	Low	O1a is per protocol (PP): study participants are maintained in the groups to which they were randomised regardless of known message delivery failures or inability to receive messages. Mimics real-world situations. O1b is as treated (AT): study participants are included only if it is known that they are able to receive messages through their assigned communication group method and there are no known delivery failures. Allows to evaluate correct message topic recall only among participants that received messages.

Table 7 Summary sheet for Baseman et al. (2015).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Bekalu et al. (2018), United States	Experimental	Public health authority (Red Cross) versus 'unknown sender' (video clip from the movie Contagion)	American adults (n=627)	Respondents are randomly assigned to view either a narrative (n = 322) or a non-narrative (n = 305) 4-min video clip (from the movie Contagion or from the American Red Cross YouTube channel) containing closely matched information about knowledge and preventive actions related to pandemic influenza. They completed pre- and post-viewing questions assessing their knowledge and perceived response efficacy related to the prevention of pandemic influenza.	O1: Knowledge of pandemic influenza (measured via 10 true or false questions, score on 10) Narrative group: M = 7.93, SD = 0.087 Non-narrative group: M = 8.33, SD = 0.089 Conclusion: Individuals who viewed the non-narrative version scored higher. O2: Response efficacy (measured via the mean of 6 seven-point Likert-type scale anchored at 1 = not at all effective to 7 = extremely effective) Narrative group: M = 6.04, SD = 0.056 Non-narrative group: M = 6.20, SD = 0.058 Conclusion: Individuals who viewed the non-narrative version rated the recommended responses to pandemic influenza as more effective.	Low	Narrative video clip contains scenes from the movie Contagion (pictures corresponding with the facts in the Red Cross video clip). Non-narrative video clip is a compilation of Red Cross information movies. Conclusion: Didactic, non-narrative messages may be more effective than narrative messages to influence knowledge and perceptions during public health emergencies..

Table 8 Summary sheet for Bekalu et al. (2018).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Chen et al. (2020), China	Experimental: randomised controlled trial	Visible source (=main source): verified versus non-verified Receiver source = person who receives message and may like or share it. Technological source: social media platform (public, on wall versus private in private chat)	Students in China who use the social-media platform Weibo	Respondents were randomly assigned to 12 intervention groups and read messages from either a verified (versus non-verified) source (2) x a verified versus non-verified receiver source or no receiver source (3) x a different technological source (public, on post wall or private, in chatbox) (2).	Verified sources are more effective as compared to non-verified sources. A non-verified visible source (or 'main source') can be compensated by a verified receiver source.	Low	A non-verified visible source (or 'main source') can be compensated by a verified receiver source.

Table 9 Summary sheet for Chen et al. (2020).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Dennis et al., 2021	Experimental: randomised controlled trial	Public health authority	Adult Americans (n=292)	Intervention group received public health messages that were tailor-made, based on the religious or economic identity of the receiver. The control group received the same messages, but these were not tailor-made based on the identity of the receiver.	Tailor-made messages, based on one's religious identity and economic values led to more motivation to follow COVID-19 regulations.	Low	

Table 10 Summary sheet for Dennis et al., 2021.

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Johnson et al. (2015) (A)	Experimental: randomised controlled trial	Public health authority	American adults (n=1408)	Intervention: 1408 respondents read Message 1 about the decision to monitor for 21 days, and answer questions about risk, knowledge and trust. They then read Message 2 with 1 of 8 varied estimates of post-21-day symptoms, and answered the same questions again and personal preference for quarantine period.	Read Message 1 and Message 2. Everyone was informed about possibility of post-21-day symptoms. Risk from asymptomatic person after 21 days: Higher rating: 46.7% No change: 40.7% Lower rating: 12.6% Concern: Initial mean: 2.75 Final mean: 2.60 Experts agree: Higher rating: 44.3% No change: 50.3% Lower rating: 5.3% Trust CDC: Initial mean: 3.28 Final mean: 3.18 Quarantine days: 25.48	Low	Message 1: People should be monitored 21 days (assumption that there is no risk after 21 days). Message 2: A text on the risk of developing typical Ebola symptoms after 21 days. Remark: Even among those exposed to the supposedly disturbing news about post-21-day Ebola symptoms, most did not change ratings at all, with (near) exceptions focused on perceived risk of an asymptomatic person at 21 days and belief in expert consensus about the proper quarantine period.

Table 11 Summary sheet for Johnson et al. (2015) (study 1).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Johnson et al. (2015) (B)	Experimental: randomised controlled trial	Inoculation message: public health authority Threat message: (mock) news channel	American adults (n=425)	Intervention: 425 new respondents answer baseline questions and either read or don't read an Inoculation Message. Both groups then read a Threat Message and answer the same questions again.	Read Inoculation Message and Threat Message. Asymptomatic risk: Higher rating: 43.8% No change: 37.1% Lower rating: 19.2% Quarantine appropriate: Higher rating: 17.8% No change: 78.6% Lower rating: 3.6% Quarantine days: Before: 23.50 After: 24.66 Conclusion: After reading Threat Message: both Inoculation and Control group give higher ratings of personal and asymptomatic risk, greater concern about casual contact with such persons, lower trust in CDC, and belief that the quarantine period should be longer than 21 days. Controls had lower belief in experts agreement on the proper quarantine period.	Low	Message 1: People should be monitored 21 days (assumption that there is no risk after 21 days). Message 2: A text on the risk of developing typical Ebola symptoms after 21 days. Remark: The majority among those exposed to the supposedly disturbing news about post-21-day symptoms, did not change ratings, with (near) exceptions focused on perceived risk of an a-symptomatic person at 21 days and belief in expert consensus about the proper quarantine period.

Table 12 Summary sheet for Johnson et al. (2015) (study 2).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Mistree et al., (2021)	Experimental: randomised controlled trial	Public health authority	Students in urban India with a low income	Respondents were randomly assigned to intervention group 1 or 2 or a control group. IG1: watched video of 10 minutes with facts on COVID-19 IG2: watched video of 20 minutes with facts on COVID-19 and further explanation of COVID-19 related concepts. Control group: did not watch a video.	Both videos contributed significantly to more knowledge on COVID-19 and a more positive attitude towards COVID-19 measures. The effect of the longer video (IG2) was stronger.	Low	

Table 13 Summary sheet for Mistree et al. (2021).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Okuhara et al., 2020, Japan	Experimental: randomised controlled trial	A governor, a public health expert, a physician, a patient, and a resident of an outbreak area.	1,980 men and women aged 18–69 years without (mental) illness or disabilities	<i>Intervention:</i> One of five intervention messages from a governor, a public health expert, a physician, a patient, or a resident of an outbreak area, encouraging the reader to stay at home. <i>Control:</i> Message about bruxism from the website of the Ministry of Health, Labour and Welfare	The message from a physician which conveyed the crisis of overwhelmed hospitals and consequent risk of people being unable to receive treatment increased the intent to stay at home the most.	High	Health professionals and media operatives may be able to encourage people to stay at home by disseminating the physicians' messages through media and the internet.

Table 14 Summary sheet for Okuhara et al. (2020).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Torres et al., 2021	Experimental: randomised controlled trial	A physician (with black versus white skin colour) versus no physician.	Adult Americans (here divided into two groups by own perception of skin colour) (n=20460)	Respondents were randomly assigned to one of the three groups. Intervention group: watched video with physician as sender and white or black skin colour. Control group: watched video with no physician as sender.	Message from physician leads to more knowledge of COVID-19 and a higher readiness to follow regulations. Skin colour does not have an effect.	Moderate	Conclusion: physicians are reliable senders of crisis communication; it is not necessary to tailor video messages based on skin colour.

Table 15 Summary sheet for Torres et al. (2021).

Author, year, country	Study design	Sender	Receiver (population)	Intervention, control	Outcome	GRADE quality	Remarks
Vandormael et al., 2021, United States, Mexico, United Kingdom, Germany and Spain	Experimental: randomised controlled trial	Public health officer	Online participants from the United States, Mexico, United Kingdom, Germany and Spain, 18 to 59 years of age (n=15163)	<i>Intervention:</i> Watched the CoVideo, a wordless, animated social media video with information on the spread of COVID-19. The video was spread on social media. <i>Control group 1:</i> watched a placebo video <i>Control group 2:</i> did not watch a video	Knowledge on COVID-19 was higher in intervention group compared to both control groups.	Moderate	

Table 16 Summary sheet for Vandormael et al., 2021

Our review team studied the effectiveness of channels, forms (the how) and dissemination roles (the who) in crisis communication on spread, reach and awareness levels in citizens, particularly those experiencing sensory, linguistic, cultural, or textual barriers. Initially focusing on evidence generated in these target groups, we broadened the inclusion criteria to better serve the guideline development process for which the review was meant to generate evidence. In terms of effectiveness of message frequency and timing review evidence suggests that higher message frequency (on any channel) may lead to a lower recall rate (Baseman et. al., 2013). Overall, email generates higher recall numbers than messages by other means such as fax or text. Bahety further suggests that timing does make a difference when increasing knowledge or influencing behavior is aimed for. When messages are sent too late (way after an outbreak) and without much visual support, they might lose their effect (Bahety et. al., 2021).

In terms of channel and form specifications of the medium used to disseminate information, several authors suggest that video messages increase knowledge about the pandemic and the measures to be taken (Mistree et al, 2021; Torres et al, 2021; Van Dornael et al, 2021). However, certain forms have a larger effect than others. The literature (Bekalu et al., 2018) indicates that non-narrative, didactic messages convey the information in a health crisis better than messages in a narrative form. These scientific insights are not entirely unambiguous. The direction may have been influenced by factors such as the choice of the narrative clip included in the study (e.g. a film clip that was not well understood). Particularly, because other studies suggest that video clips with a storytelling element can actually be effective in getting a message across. For example, storytelling can make a crisis message easier to understand. Also, Mistree and colleagues (2021) argue that videos with concept explanations significantly increase pandemic knowledge compared to videos that only provide facts. Longer videos of approximately 20 minutes score better in terms of increasing knowledge compared to shorter ones. A sidenote to this finding is that this effect largely depends on the length of the average attention span of the public or context for which the video is made. We also found evidence for the effectiveness of wordless, animated videos. This is promising for an outreach to people who experience linguistic or textual barriers. An important side effect of using infographics with images of scientists is that it increases confidence in scientists.

We also looked at the effect of using different senders to disseminate relevant health information in a pandemic crisis situation. Evidence suggests that medical doctors are best placed to deliver such information, as they increase the willingness of citizens and patients to adhere to an advice (Okuhara et al., 2020). In some cases though, other senders appear to be more effective. For example, respondents who received an emergency message from a COVID-19 patient or a resident of a COVID-19 outbreak area felt more vulnerable to the virus than respondents who received an emergency message from a doctor. Overall, citizens seem to trust information from senders whose identity or institution can be verified more. It also positively influences people's search intent. Messages tailored to religious, economic or other specific identities also increase the motivation for following measures. Yet, investigations that study the impact of skin colour or differences in ethnic profiling of senders such as doctors do not seem to suggest any beneficial effect on knowledge increase. Despite this, in this review, cultural sensitivity generally is appreciated by many of the populations under study.

In addition, evaluating the impact of open and pro-active communication in crisis situations was within reach of this review project. We retrieved a study from Johnson and colleagues (2015) emphasising the importance of communicating in advance the reason behind a particular

measure when it is implemented. According to Johnson and colleagues (2015), in the case of an exceptional situation (such as symptoms of disease occurring after a quarantine period), it is advisable to mention it and to communicate why a certain measure (in this case the length of a quarantine period) was chosen. Citizens who were informed in advance about possible exceptional situations and the reason behind the crisis measure lose less trust in health experts and institutions than people who did not receive this information and 'spontaneously' came across a news item about the medical exception.

1.4 DISCUSSION AND CONCLUSION

This rapid review was conducted to inform a best practice guideline on crisis communication for a specific proportion of hard-to-reach target groups under pandemic conditions. It supports a research project focusing on inclusive COVID-19 crisis communication that takes the (multi-)linguistic and socio-cultural diversity and degree of literacy of the Belgian population into account. Specifically, the review contributes to **combating information inequality** by providing evidence on how to remove the sensory, linguistic, cultural and textual barriers experienced by (linguistic) minorities and target audiences with challenging life circumstances in COVID-19 governmental crisis communication. This can be achieved through translation and re-translation, both in terms of the form of the message and the channels through which it is distributed.

1.4.1 A GAP IN THE ACADEMIC LITERATURE

Both the state-of-the-art (Section 1.1.2) and the results from the rapid review (Section 1.3) testify to a general lack of high quality academic research on the topic of inclusive crisis communication. Indeed, of the 7500 retrieved original studies across both time phases only 12 studies initially made it through the entire screening process and quality appraisal. This is indicative of an important gap in the literature for high quality studies on the topic that needs to be tackled in future research.¹² The fact that many researchers were conducting experimental and comparative studies in the midst of the COVID-19 pandemic, with the request to deliver fast, may have contributed to the lower quality level detected in the study pool, and the overall lack of robust evidence from high quality randomised controlled studies – the golden standard for generating evidence on the effectiveness of interventions.

Another reason for the initially very small sample of included studies was our specific focus on a population of foreign-language speakers, people with low literacy skills, people with low socioeconomic status and people with auditory or visual impairments. Many, potentially very interesting, relevant studies targeting citizens more generally were initially excluded on the basis of a wrong population.

1.4.2 SELECTIVE SAMPLING

In order to increase the number of studies that feed into the guideline process from this rapid review, a **selective sampling** of studies could be performed to select those that were excluded for population purposes (read: studies that do not focus on the vulnerable populations as specified in Section 1.2.5). While such studies would generally be downgraded in the **GRADE quality of**

¹² The identified gap in the literature may explain why (inter)nationally validated policy guidelines on inclusive crisis communication hardly exist to support governments in reaching the goals of inclusivity.

evidence screening during a guideline development procedure,¹³ we allowed the panel members selected for guideline development to extrapolate insights from one population to the other and draw valid conclusions from indirect evidence.

Since population was the last exclusion criterion on our screening form (see Appendix B) we were able to work ourselves backwards through the excluded study pool. All studies that were initially excluded by the abstract screening team on the basis of an incorrect population that satisfied the other five inclusion criteria (i.e. correct language, topic, context, focus and study design, cf. Section 1.2.5 and Appendix C), were re-included in our pool of quality assessment studies to broaden the evidence base for guideline development. The full text of an extra 61 studies eventually identified was screened for inclusion. Working on review projects in crisis situations wherein evidence is generated based on progressive insight requires a substantial amount of flexibility and, where needed, an adaptation of predefined criteria that might work in ideal circumstances, but not necessarily for the context in which systematic reviews need to be developed.

¹³ GRADE (Grading of Recommendations, Assessment, Development and Evaluations) is a widely adopted tool for grading/rating the quality of evidence. GRADE has four levels of evidence (also known as certainty in evidence or quality of evidence): very low, low, moderate, and high.

2 EXPERT PANEL CONSULTATIONS: TRANSLATING INTERNATIONAL EVIDENCE TO THE LOCAL CONTEXT

This chapter discusses the evidence-based guideline outcomes of the **expert panel consultations** carried out by the KULeuven team Daniëlle Wopereis under the lead of Karin Hannes as part of the project's fourth Work Package.

This chapter is based on the content of the following project deliverable reports:

Hannes, K. & Thyssen, P. *Internal report on the scientific evidence feeding into the guideline development process: rapid systematic literature review. Report on Work Package 1.* 15 July 2021.

Hannes, K., Thyssen, P & Wopereis, D. *Towards an inclusive crisis communication policy: An evidence based guideline: Recommendations for dealing with textual, linguistic, sensory and cultural communication barriers in a pandemic context. Report on Work Package 4.* 31 January 2022.

2.1 INTRODUCTION

The ongoing COVID-19 pandemic underlines the importance of effective and inclusive crisis communication (Anson et al., 2021). Crisis situations such as pandemics or epidemics bring with them a great deal of uncertainty and ambiguity. Daily life is abruptly turned upside down and the crisis situation can change or worsen at any time. This leads to fear, anxiety and anger, especially about what *might* happen.

Effective communication can allay some of these concerns, but above all it is an essential weapon in the fight against the health crisis itself. In times of a pandemic, it is crucial that citizens know how to protect themselves and society as a whole as best as possible. Especially shortly after the outbreak of a pandemic, when no vaccines or treatments are yet available, interventions such as keeping your distance, washing your hands, wearing masks and isolation are the only means of fighting the further spread of the virus (Adhikari et al., 2020). A well-informed society, with clear and up-to-date crisis communication at its disposal, can deal with a pandemic in a stronger and more resilient way.

Crisis communication, however, is still insufficiently attuned to society as a whole. Where communication about the coronavirus causes confusion and distrust in the government among Belgians in general (Indiville & RCA, 2020), crisis messages for vulnerable groups may be even more unclear. When sending essential crisis messages, governments still take too little account of groups such as foreign-language speakers, people with low literacy skills and people with sensory impairment. Crisis communication often fails to reach them sufficiently. For example, texts on government websites are often too long, too complicated or not compatible with text-to-speech programs. Announcements of crisis measures on television are often unstructured and difficult to follow, for example, for people with hearing impairment, who have to keep an eye on both an interpreter and a graph. Or for foreign-language speakers, who cannot keep up with the speed of the speaker. As a result, groups such as these are less well informed in relation to their fellow citizens (Waidyanatha, 2020) - and are therefore less able to protect themselves effectively against a crisis situation (Vaughan & Tinker, 2009).

The deluge of misinformation that rages across our screens during the COVID-19 pandemic does not make the situation any better. The 'infodemic', with its massive spread of *fake news* and false rumours, can create large scale confusion and distrust, which can have disastrous consequences. According to Vaughan & Tinker (2020), vulnerable groups fall prey to health-related misinformation more frequently compared to the general population.

The lack of crisis communication tailored to vulnerable target groups and the rapid spread of misinformation calls for a revision of the current crisis communication policy. Effective crisis communication informs and motivates. It ensures that governmental trust increases (Siegrist & Zingg, 2014) and that *fake news* and rumours are kept at bay. In order to achieve an effective and inclusive crisis communication policy, it is important to listen carefully to the needs of *all* groups in society - and thus to adapt communication strategies to each person's unique situation.

In consultation with a panel of experts, we developed an *evidence-based guideline* for inclusive crisis communication. The guideline contains suggestions and recommendations on how to better involve people with special communication needs in crisis communication in the future.

What is an evidence-based guideline?

An *evidence-based guideline* is a systematically written statement containing recommendations to assist healthcare providers or government agencies in making decisions about appropriate policies. A guideline is based on systematic literature review of scientific evidence and on an assessment of the advantages and disadvantages of particular actions or interventions that are described in the evidence. Guidelines are not fixed protocols to be followed rigidly, but are meant to describe interventions and give advice, which can then be considered by policy makers.

A guideline is developed according to a set method (**Evidence-Based Practice**) and is based on three sources of knowledge:

1. **Scientific knowledge:** the best available scientific research and the knowledge of academics participating in the panel;
2. **Practical knowledge:** the knowledge, experiences and preferences of the target group. In this guideline, these are the experiences of people who, in addition to their expert position, also have practical experience and knowledge of crisis communication for vulnerable target groups;
3. **Expert knowledge:** the knowledge, experiences and preferences of experts from civil society. These are persons who, based on their work experience, have insight into crisis communication to vulnerable target groups.

This guideline is based on the AGREE II¹⁴ tool (Brouwers et al. 2010). This instrument provides a framework for the development of high-quality, methodologically sound guidelines that are feasible and meaningful for practice. The instrument contains 23 criteria that an *evidence-based guideline* should meet. They successively assess the development process of the guideline, the content of the final recommendation and the factors associated with the acceptance and implementation of the guideline.

One of the most important methodological requirements of a good guideline is to conduct a literature review. For this guideline no systematic review was conducted according to the

¹⁴ The AGREE tool (Appraisal of Guidelines for Research & Evaluation) was developed to promote the quality of practice guidelines. It is a tool for assessing the methodology and transparency of guideline development. The original AGREE instrument has been refined resulting in a new version, the AGREE II. The objectives of the AGREE II are (1) to assess the quality of guidelines, (2) to inform guideline development, and (3) to incorporate necessary information into guidelines.

guidelines of the Cochrane¹⁵ and Campbell¹⁶ Collaborations. Given the urgency of writing a crisis communication guideline during the current COVID-19 crisis, we made a compromise between the number of primary articles that can be processed for the guideline development on the one hand and a reasonable timeframe for the guideline project completion on the other hand (cf. SIGN methodology¹⁷). We opted for a *rapid review*, rather than a *comprehensive review*, with clearly defined criteria according to setting and crisis context.

The literature review was conducted in two phases (see Section 1.2 on Methodology), by thirteen 'screeners', who assessed the total pool of selected studies for relevance to the guideline. A 20% sample was double screened. The insights from the literature review were supplemented with the opinions and (practical) experiences of academics and experts from civil society during three virtual panel meetings.

2.2 SUBJECT AND PURPOSE

In the context of this guideline project, we are asking the question ***How can we make crisis communication more inclusive in times of pandemic?*** The main objective of this guideline is to provide recommendations to make crisis communication more inclusive by removing sensory, linguistic, cultural and textual barriers. In this guideline we identify and document crisis communication interventions with proven effectiveness and discuss how they can be implemented in an inclusive way. The resulting recommendations can help policymakers, academics and civil society stakeholders choose an inclusive crisis communication strategy.

We mainly focus on interventions that can improve the effectiveness of the **form** of crisis communication (including translations, subtitling, readability, structure, symbols, animations...etc.), the **channel** (online or offline), the **distribution** (including the messenger/broadcaster) and the **reach of** crisis communication.

The aim is *not* to make recommendations at the process level. This guideline *does not look* for the most effective content or the most convincing moral *frame*, nor *does it* address how certain crisis communication strategies can lead to behavioural change or adherence to crisis measures. Nor *is* the goal to recommend certain interventions per outcome measure (e.g. increasing vaccination coverage). The focus is on reaching the target populations and the effectiveness of the message in terms of *recall* – and not on the consequences of the strategy used.¹⁸ In this

¹⁵ Cochrane Collaboration: an international non-profit organisation that aims to provide support in making informed decisions about healthcare. It does this by publishing systematic reviews and meta-analyses of the effects of health interventions. (Higgins JPT, Green S: Cochrane Handbook for Systematic Reviews of Interventions Version 5.0.2. The Cochrane Collaboration).

¹⁶ Campbell Collaboration: an international non-profit organisation founded in 2000 as a sister organisation of the Cochrane Collaboration. It aims to promote and support evidence-based policy and practice in the human sciences. The organisation does this by supporting practitioners, policy makers and the wider public in making decisions about interventions within three broad domains, (1) education (2) crime and insecurity and (3) social welfare in the broadest sense.

¹⁸ The message content and the way behavioural change can be stimulated through crisis communication are not the focus of *this* project, but are extensively researched by other ongoing projects, such as:

Motivational Barometer and motivational communication: a research project by Maarten Vansteenkiste (UGent) and Omer Van den Bergh (KULeuven);

1. Pro-actively addressing COVID-19 vaccination doubts to increase effectiveness of vaccination campaigns in Belgium: a transdisciplinary approach: FWO COVID-19 project of ITG & KU Leuven with Koen Peeters (ITG), Charlotte Gryseels (ITG), Anne-Mieke Vandamme (KU Leuven), Nico Vandaele (KU Leuven) and Corinne Vandermeulen (KU Leuven);
2. Vaccination doubt and vaccination preparedness: VAXCOM project by Karolien Poels (UA), Walter Daelemans (UA) and Pierre Van Damme (UA);
3. Online communication strategy COVID-19 and customer support: project by Carole Lamarque (Duval Union).

guideline we start from the idea that - *before* we can consider the effectiveness of a communication message - the target population must first be successfully reached.

If a communication intervention is considered 'successful' in the literature, the suggestion given must be adapted to the particular needs of our target populations. The insights and experiences of our expert panel therefore played a crucial role in determining whether or not to recommend a particular activity. In addition to effectiveness, the focus was mainly on usefulness and the preconditions that had to be met if the activity was to be implemented, such as the competences required, economic and social barriers or the use of intermediaries.

Target population

The guideline project focuses primarily on people who experience textual, linguistic, sensory, and/or cultural barriers to receiving and understanding crisis communication.

1. **Textual barriers** are about the level of complexity and clarity of a given (written or spoken) text. For example: a recipient has to make a great effort to understand a text quickly; he or she may not read the text in its entirety and the message may not come across (properly).
2. **Linguistic barriers** can arise when a person's literacy and/or command of language is too low-levelled to be able to absorb a particular message properly. For example: foreign-language-speaking newcomers who cannot find government texts in their mother tongue.
3. By **sensory barriers**, we mean that a message does not get through adequately due to a temporary or permanent loss of sight or hearing, such as deafness or blindness. For example: a person with hearing impairment cannot hear a radio announcement addressing a new regulation concerning mask-wearing.
4. **Cultural barriers** occur when a message does not arrive properly because the non-textual aspects used (such as animations, colours, symbols and gestures) do not correspond to the ethno-cultural norms and values of a certain group. A message can thus be interpreted differently. For example: well-known persons bringing a certain crisis message may have an unknown or negative image for a certain group.

In this guideline we will regularly refer to the following (sub)target groups with special communication needs, who may experience one or more of the above barriers:

- People with sensory (hearing or visual) impairments and/or;
- People with low literacy skills and/or;
- Foreign-language speakers and/or;
- People from different ethnic and cultural backgrounds.
- People with low socioeconomic status and/or;

We *do not* focus in this guideline on people with a learning disability (such as ADHD or autism spectrum disorder), homeless people or people with intellectual disabilities. However, many of the recommendations discussed in this guideline will also be useful and necessary for these target groups.

Research question

The general research question to which this *evidence-based guideline* provides an answer is as follows:

How can we make crisis communication in a pandemic context more accessible and inclusive for people who experience sensory, linguistic, cultural and/or textual barriers?

In this guideline, we investigated how the effectiveness of communication forms, channels, messengers, timing and the degree of openness in crisis communication can be improved for our target population. More details on the individual research questions can be found in the methodology section of this guideline.

2.3 ACTORS

2.3.1 THE GUIDELINE WORKING GROUP

The guideline working group is composed of an expert panel and the internal "think tank" of the crisis communication project.

The **expert panel**¹⁹ consists of the following actors, who have shaped and assessed the content of the *evidence-based guideline*, including through virtual consensus meetings:

- **Anne-Mieke Vandamme:** chemist/biochemist by training, works at the Clinical and Epidemiological Virology Laboratory (Rega Institute) of the KU Leuven; founded Institute for the Future.
- **Aurélië De Waele:** doctorate in communication sciences, thesis on crisis communication, part-time lecturer at KU Leuven and University of Antwerp in the fields of business communication and corporate communication. Also works on a research project at the University of Antwerp on information about communication about vaccination.
- **Daniëlle Wopereis:** background in communication; master's degree in sociology; collaborated in writing the guideline; has experience in communicating with vulnerable groups. Works at the Centre for Sociological Research at the KU Leuven.
- **Isabelle Reynders:** lives and works in the social housing community De Berenklaauw in Herent; has a good idea about what kind of communication reaches the target group of people with a low socioeconomic status.
- **Helga Stevens:** director of Doof Flanders (based in Ghent); focused on communication to people with hearing impairment.
- **Annelien Mallems:** Communication officer at Ligo, Antwerp Centre for Basic Education; focuses on inclusive communication for foreign-language speakers and people with low literacy skills.
- **Roel Van Gils:** Busy with digital accessibility for people with a (functional) disability; co-founder AnySurfer (based in Brussels).
- **Lien Vermeire:** Works for the National Crisis Centre Belgium, communication department; responsible for risk communication in non-crisis times, but since the COVID-19 pandemic mainly involved in coordination of inclusive crisis communication.
- **Sigrid Mertens:** Works for Inter (umbrella expertise centre for accessibility in Flanders); works mainly on accessible and inclusive communication.
- **Zineb Berrag:** Background in communication, works for Allyens (based in Antwerp), specialised in inclusive communication and (brand) marketing; helps companies to make communication more accessible and inclusive.

¹⁹ All external experts attended at least one consensus meeting. In addition, they signed a *conflict of interest statement* in which they declared any potential conflicts of interest to the project group (see Appendix E). At the end of the consensus meeting, potential conflicts of interest were asked about again. None of the members declared any conflicting interests with regard to this project.

The **internal think tank** of the wider project identifies and formulates inclusion and exclusion criteria of the literature review, supports the literature review and drafts the guideline, taking into account the proposal of the expert panel members and guideline reviewers. The internal think tank consists of the following actors:

- Karin Hannes: Scientific coordinator of the guideline committee;
- Pieter Thyssen: coordinating researcher;
- Bonnie Geerinck: ICC project researcher at UAntwerpen;
- Daniëlle Wopereis: coordinating researcher.

Methodological expert Prof. Karin Hannes, agronomist and medical-social scientist at the KU Leuven is the secretary, **project leader and chairperson** of the expert panel. She provides (virtual) feedback on the literature review, leads the consensus meetings of the expert panel and provides feedback on the draft guideline.

2.3.2 OTHER ACTORS (NOT BELONGING TO THE GUIDELINE WORKING GROUP)

The non-guideline **reviewers and assessors**²⁰ validated the draft guideline before final approval by the expert panel chair. The following actors were involved:

During a virtual *savage meeting*, the **reviewers** of the guideline gave their critical view on the recommendations that emerged from the panel meetings. All reviewers are involved in the ICC project and brought knowledge from the different research activities they engaged in as part of the ICC project.

All reviewers are involved in the ICC project and have relevant expertise:

- Mieke Vandenbroucke, University of Antwerp;
- Bonnie Geerinck, University of Antwerp;
- Nina Reviers, University of Antwerp;
- Gert Vercauteren, University of Antwerp;
- Sarah Talboom, Thomas More University of Applied Sciences Mechelen;
- Wessel van de Veerdonk, Thomas More University of Applied Sciences Mechelen;
- Dominique Doumont, Université Catholique de Louvain;
- Heleen Vanopstal, Atlas Integratie & Inburgering Antwerpen;
- Isabelle Aujoulat, Université Catholique de Louvain.

This guideline is currently available for validation by the Centre for Evidence-Based Medicine (CEBAM). Guideline **evaluators** (validation committee):

- Dirk Ramaekers, chairman CEBAM;
- Anne-Catherine Vanhove, methodologist CEBAM;
- Leen Deconinck, methodologist CEBAM;
- Mayada Srouji, expert on inclusive crisis communication;
- Farida Barki, Wablieft, centrum voor duidelijke taal;
- Eric Goubin, expert on governmental and social profit communication, Kortom vzw;
- Christopher Barzal, coordinator communication Coronacommissariaat.

²⁰ All reviewers and reviewers signed a *conflict of interest statement* indicating that they would disclose any conflicts of interest to the project group (see Appendix E).

2.4 METHODOLOGY

For this guideline, first a systematic literature search was conducted in the form of a *rapid review*. A search strategy was drawn up, literature was searched in seven databases and the studies found were screened according to the inclusion and exclusion criteria drawn up. The studies that resulted from this rapid review were first assessed for quality and then submitted to the interdisciplinary expert panel in order to arrive at practical recommendations. This section describes the methodological steps taken in more detail (see Figure 6 for a brief overview).

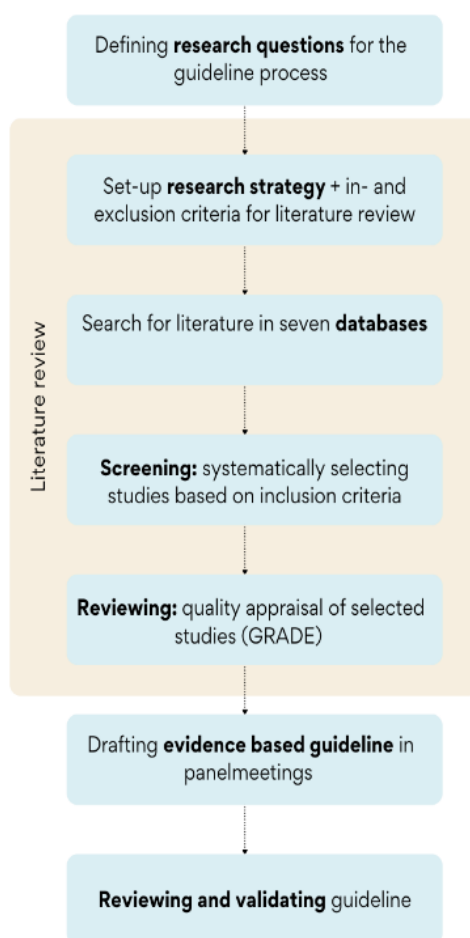


Figure 6 Overview of the guideline process.

2.4.1 SUBJECT MATTER OF THE EVIDENCE-BASED GUIDELINE

The research questions for this *evidence-based guideline*, as well as the inclusion and exclusion criteria for the literature review, were identified and formulated by the project group in collaboration with the full research consortium. The final choice of interventions and criteria for inclusion and exclusion of literature took into account what is practically feasible in a Belgian healthcare and government context, in relation to the intended target population.

2.4.1.1 RESEARCH QUESTIONS OF THE EVIDENCE-BASED GUIDELINE

The general research question to which this Evidence-Based guideline provides an answer is as follows:

"How can we make crisis communication in a pandemic context more accessible and inclusive for people who experience sensory, linguistic, cultural and/or textual barriers?"

From this general research question, we formulated (per intervention) thirteen sub-research questions that were formulated according to the PICO standard. PICO stands for **Population** (P), **Intervention** (I), **Comparison** (C) and **Outcome** (O).

Example: informative, didactic video on virus propagation (I):

"For people who experience sensory, linguistic, cultural and/or textual barriers (P), the use of informative, didactic videos on virus spread (I) is more effective in promoting knowledge of COVID-19 (O), than not using informative videos or using narrative videos (C)."

When drawing up sub-research questions, the entire **target population (P)** (see section 2.2 Subject and purpose) was always kept in mind; we focus on foreign-language speakers, people with low literacy skills, people with a low socioeconomic status and/or people with an auditory or visual impairment. As a result of the panel meetings, it was sometimes decided to 'split' recommendations into sub-target groups, in order to achieve richer, more tailor-made advice and more effective communication.

The project group identified communication interventions (**I**) at the level of form, channel and reach in crisis communication. The following interventions were identified and discussed by the project group:

- Watching a comic/infographic;
- Receiving text messages (with a specific timing);
- Receiving "health alerts" in different frequencies;
- Watching a didactic video clip on the prevention of virus spread;
- Receiving messages from verified sources on social media;
- Viewing identity-based health messages;
- Receiving information on pandemic exception situations;
- Receiving proactive explanations of crisis measures taken;
- Watching a video with facts and extra conceptual explanations about COVID-19;
- Receiving a text message on COVID-19 from a doctor;
- Watching a video in which a doctor (with white or dark skin colour) provides COVID-19 information;
- Viewing a wordless animation video with COVID-19 information.

Relevant **comparisons (C)** in terms of form, channel and reach in crisis communication include viewing narrative (versus didactic) video clips on the prevention of virus spread, viewing a shorter video clip with facts about COVID-19 without a concept explanation and receiving text message about COVID-19 from a patient or resident of a coronary outbreak area.

The **results (O)** are broad and include the effectiveness of videos as a crisis communication tool, the power of the doctor as a transmitter of crisis communication and the importance of open and proactive communication. (See Table 17 for a summary of the interventions, comparisons and outcomes that emerged in this guideline).

2.4.1.2 INCLUSION AND EXCLUSION CRITERIA OF THE LITERATURE SEARCH

Inclusion and exclusion criteria

The substantive inclusion and exclusion criteria determine which studies are included in the literature search. The criteria set result in the inclusion of the best available scientific evidence at the time of the literature search. This can be direct or indirect evidence. Direct evidence is directly applicable to the target population of this guideline, because the characteristics of the target group we are interested in correspond to the respondents in the study. Indirect evidence is not. Indirect evidence is of lower quality (see quality criteria according to the GRADE methodology [see B.1]) because the characteristics of the target group from the studies do not fully coincide with the characteristics of our target group. Therefore, a translation must be made by the panel. The panel discussions examined whether interventions from indirect evidence are also applicable to the target groups of this guideline.

The **inclusion criteria** for this study were as follows:

- a) The study is written in English;
- b) The study deals with crisis communication and mentions this in the abstract, the discussion and/or the conclusion section;
- c) The study focuses on crisis communication in a respiratory, epidemic or pandemic context;
- d) The study investigates which interventions in the field of form, channel and/or reach are the most effective in successfully communicating a crisis message.
- e) The article is a *peer-reviewed, full-length* research article in a comparative form, such as a *randomised controlled trial* (RCT), an evaluation, a clinical intervention, an observational study, a comparative study, a before-and-after study or a prevention study.
- f) The study focuses on people who experience sensory, linguistic, cultural and/or textual barriers.²¹

The exclusion criteria include:

- a) The study is written in a language other than English;
- b) The study is not about crisis communication, but health communication in general;
- c) The study was conducted in a different context, such as crisis communication in natural disasters or economic crisis situations;

²¹ Studies meeting criterion f are considered direct evidence. Inclusion criterion f was considered non-essential for this guideline, as the literature search yielded almost no suitable studies focusing on these specific target groups. The panel meetings considered the feasibility and extrapolation of the interventions described in the studies for people with special communication needs.

- d) The focus is not on the form, the channel and/or the reach of the message, but on the content of the message, or on behavioural change (such as increasing vaccination coverage).
- e) It is a qualitative study, thesis, research report, conference paper, book review, editorial or opinion article.

In this literature search, no restrictions in publication date were made, so that all relevant literature - regardless of publication date - was selected.

2.4.2 LITERATURE REVIEW

The literature search was built up step by step, starting with the formulation of the search strategy up to and including the preparation of the *evidence summary*. The following steps were taken:

1. The search strategy was drawn up;
2. The search strategy was then assessed by the following methodological experts: Krizia Tuand, Thomas Vandendriessche, Kristel Paque, Anne-Mieke Van Damme.
3. Based on the search strategy, seven major databases (CINAHL (EBSCO), Web of Science Core Collection (including the ISI Social Science Index and Arts and Humanities Index), Medline/PubMed, Embase, ERIC (OVID), Cochrane CENTRAL and Cochrane CDSR) were searched for relevant papers;
4. The search results from the seven databases were exported and merged into data management programme EndNote, where duplications - and articles with the terms 'review' and 'meta-analysis' in the title - were removed;
5. The evidence found was checked against the above-mentioned inclusion and exclusion criteria. A team of thirteen screeners systematically assessed the search results found in the review programme Rayyan. A random sample of twenty percent was screened twice;
6. Two reviewers (PT and DW) assessed the quality of the scientific evidence selected for the guideline according to the GRADE methodology (see B.1) and described the literature review in an *evidence summary*.

As the first phase of the literature search yielded only a very small number of suitable studies (N=6) - and given the large amount of pandemic-related studies published during the COVID-19 pandemic - we opted to conduct a *rapid review update*. This update followed the same steps described above. The update yielded 7 additional evidence studies. In addition, given the very low number of articles that specifically focused on our target populations, we also included studies that concerned a more general population.

2.4.2.1 QUALITY ASSESSMENT (GRADE ²² METHODOLOGY)

The quality of evidence or level of evidence was determined using the GRADE methodology (Guyatt et al. 2008). This explains the strengths and limitations of the scientific evidence (per intervention and per outcome).

This takes into account:

- Limitations in design: For experimental studies, the randomisation method, blinding of the randomisation, blinding of participants/patients and treating physicians, blinding of

²² GRADE: *Grading of Recommendations Assessment, Development and Evaluation*. The GRADE methodology is a methodology that can be followed to determine the quality of the scientific evidence and to assign grades to recommendations that are based on the corresponding evidence.

effect assessors, incomplete outcome data, selective reporting of outcomes are looked at. For observational studies, the use of a control group, measurement of exposure and outcomes, control for *confounders* and follow-up are considered.

- Inconsistency: It is checked whether several studies have inconsistent results and whether this can be explained by heterogeneity.
- Indirectness: It is checked whether the selected studies have the same population, intervention, comparison and outcome as the research question described.
- Imprecision: The width of the confidence intervals around the effect estimate is checked according to the rules of thumb drawn up by the GRADE working group.

Based on these criteria, the following levels of evidence can be assigned:

- high (A): further research is unlikely to change confidence in the effect estimate
- moderate (B): further research will have a significant impact on the confidence in the effect estimate and could change the estimate
- low (C): further research is very likely to have a significant impact on confidence in the effect estimate and is likely to change the effect estimate
- very low (D): the effect estimation is very uncertain

For experimental studies, a high level of evidence (=A) is used as a starting point and a low level of evidence (=C) is used for an observational study. The further reduction of the level of evidence is made according to the criteria described above (for each criterion the level of evidence is reduced by one level).

2.4.2.2 STRUCTURE OF THE CONCLUSIONS OF THE LITERATURE REVIEW

The *body of evidence* summarises the conclusions of the literature review. Here, the effects of the intervention on the outcome were examined per intervention. Sometimes primary studies can be combined in the *body of evidence*. This is done if multiple studies were found that examined the same intervention and outcome. Depending on the conclusions of the primary studies, this is referred to as *conclusive evidence*, *inconclusive evidence* or *conflicting evidence*. If only one study was found, the *body of evidence consists* of this study only, and the *evidence conclusions* are therefore equal to the conclusions of this study.

The conclusions of the literature review are formulated as follows:

PART I - General conclusion: this conclusion always contains the following elements:

- Intervention or risk factor;
- Indication of whether a positive effect, no (positive/negative) effect or a contradictory effect was found in the scientific literature;
- Population (i.e. whether it is a population with special communication needs).

PART II - Conclusion by type of outcome: this conclusion always contains the following elements:

- Intervention or risk factor;
- Mention inconclusive/conflicting evidence;
- Number of experimental and/or observational studies;
- First author(s), year(s), quality of body of evidence (A, B, C, D);
- One of the following statements regarding the body of evidence:
 - Statistically significant increase/decrease/difference/risk
 - No statistically significant increase/decrease/difference/risk
- Outcome;

- Comparison;
- If applicable: Statement that the results of the study are subject to change due to the small number of participants in the study (according to GRADE methodology). This applies to both statistically significant and non-statistically significant results (risk of false positive/negative results).

2.5 RESULTS OF THE LITERATURE REVIEW

The *rapid review flow charts* (Figure 7 and Figure 8) show how the studies for this guideline project were systematically selected and assessed. An overview of the selected studies can be found in Table 17.

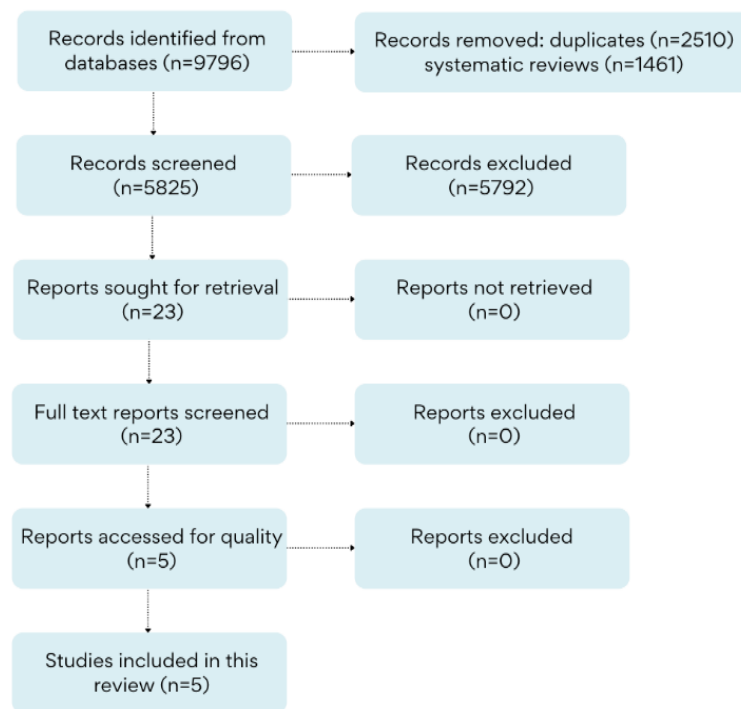


Figure 7 Rapid review flow chart (phase 1).

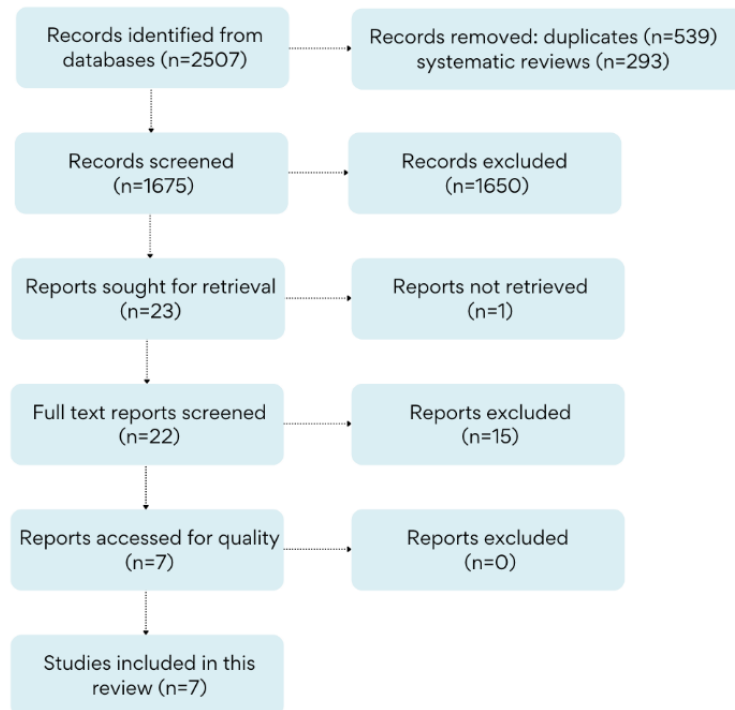


Figure 8 Flow chart of rapid review phase 2 (update).

Study	Intervention	Population		Comparison	Outcome	Focus	Quality
	Type	Who?	Vulnerable?				
Baseman et al (2013)	Alerts via email, fax, SMS in varying frequency.	Health care workers	No	Alerts via email, fax, SMS or no alerts.	The more posts per week, the less recall.	Channel effectiveness	Low
Baseman et al (2015)	Received health alerts through different channels (regardless of whether channel was available to recipient).	Health care workers	No	Alerts via email, fax, SMS or no alerts.	Email is generally the most effective.	Channel effectiveness	Low
Bekalu et al (2018)	Watched video clip on preventive influenza actions.	Adults	No	Narrative versus non-narrative (didactic) clip.	Non-narrative clips are more effective in influencing knowledge and perception.	Effectiveness form	Low
Okuhara et al. (2020)	Respondents received 1 message from different senders (doctor, patient, resident...) with situation outline and message 'stay at home'.	Adult Japanese	No	Groups were each shown a sender. A control group received a replacement message.	Doctor is generally the most effective messenger. In some situations (sense of vulnerability) patients and residents are more effective messengers.	Messenger effectiveness	Low
Johnson et al. (2015) A	Received message 1 about monitoring 21 days for Ebola symptoms and message 2 about the possibility of developing symptoms after day 21.	Adult Americans	No	Received only message 1 on 21-day monitoring for Ebola symptoms.	Those who received the message about possible symptoms after day 21 noted more distrust in health organisation and quarantine period.	Effectiveness of open and proactive communication	Low
Johnson et al. (2015) B	Proactive message to health policy-maker about exceptional contamination situations and choices for quarantine policy. Then 'threat message' about Ebola symptoms after quarantine period.	Adult Americans	No	No proactive message received. Then the same 'threat message' about Ebola symptoms after quarantine period.	People who did not receive the proactive message reacted more negatively (less trust, more risk perception) to the threat message than those who did.	Effectiveness of open and proactive communication	Low

Table 17 Summary of the literature review in which studies on crisis communication in a pandemic context were selected.

Note. IG=intervention group; CG=control group.

	Intervention Type	Population Who?	Vulnerable?	Comparison	Outcome	Focus	Quality
Dennis et al (2021)	IG: viewed two public health messages, aligned with identity.	Adult Americans	No	CG: viewed the same messages, without identity matching.	Identity-specific messages increase the motivation to comply with measures.	Effectiveness of the form	Low
Johnson et al. (2015) 1	Received message 1 about monitoring 21 days for Ebola symptoms and message 2 about the possibility of developing symptoms after day 21.	Adult Americans	No	Received only message 1 on 21-day monitoring for Ebola symptoms.	Those who received the message about possible symptoms after day 21 noted more distrust in health organisation and quarantine period.	Effectiveness of open and proactive communication	Low
Johnson et al. (2015) 2	Proactive message to health policy-maker about exceptional contamination situations and choices for quarantine policy. Then 'threat message' about Ebola symptoms after quarantine period.	Adult Americans	No	No proactive message received. Then the same 'threat message' about Ebola symptoms after quarantine period.	People who did not receive the proactive message reacted more negatively (less trust, more risk perception) to the threat message than those who did.	Effectiveness of open and proactive communication	Low
Mistree et al (2021)	IG 1: 10-minute video with COVID-19 facts; IG 2: 20-minute video with COVID-19 facts + concept explanation.	Students in low-income urban India	No	CG: No video. Does video with concept explanation lead to more knowledge of COVID-19?	Both videos generate more knowledge. Video with a concept explanation scores higher than video with only facts.	Effectiveness of the form	Low
Okuhara et al. (2020)	Respondents received 1 message from different senders (doctor, patient, resident...) with situation sketch and message 'stay at home'.	Adult Japanese	No	Groups were each shown a sender. A control group received a replacement message.	Doctor is generally the most effective messenger. In some situations (sense of vulnerability) patients and residents are more effective messengers.	Messenger effectiveness	Low
Torres et al (2021)	IG: watched 3 videos where COVID-19 information was given by a doctor with dark or white skin colour.	Adult Americans	No	CG: did not receive videos from doctor. In addition, it was investigated whether skin colour has an effect on knowledge transfer.	Message from doctor increases knowledge and willingness to follow up on measures; skin colour has no effect.	Effectiveness of the transmitter	Low
Van Dormael et al. (2021)	IG: saw the CoVideo; a wordless animation video with COVID-19 information	Online participants from US, UK, Mexico, Spain, Germany.	No	CG 1: watched a placebo video; CG 2: was not shown any video.	Knowledge in the CoVideo-IG was significantly higher.	Effectiveness of the form	Low

Table 17 continued.

2.6 EVIDENCE-BASED RECOMMENDATIONS

2.6.1 DRAFTING METHOD

The results of the literature search were presented to the expert panel during the consensus meeting for each activity. The number of studies, the content and the quality of the scientific evidence were reviewed per intervention. During the discussion, the experts were asked to respond to the results from their own perspective.

The panel was informed of the limitations of the literature review before the discussion started, so that these could be taken into account when making a decision. The following general limitations with regard to the literature review were communicated:

- The literature search yielded only a small number of studies;
- No studies were found that focused on the specific target group for this guideline (vulnerable groups such as foreign-language speakers, people with low literacy skills or people with sensory impairment). As a result, we widened the selection criteria to a more general population and included target groups such as care workers. This was qualified as indirect evidence;
- The quality of the studies in most cases was low due to limitations in the study design. As a result, a lower level of conclusive power was assigned (according to the GRADE method).

For activities for which the literature search did not yield studies that met the methodological and content inclusion and exclusion criteria, the following strategy was proposed to the expert panel, which was approved by consensus of the panel members:

- The interventions for which no literature is available are not supplemented by mere expert opinion. For these interventions it is written in the guideline that (additional) research is necessary.

The draft recommendations were prepared during the meeting with the experts by means of plenary discussion using a decision tree (Figure 9).

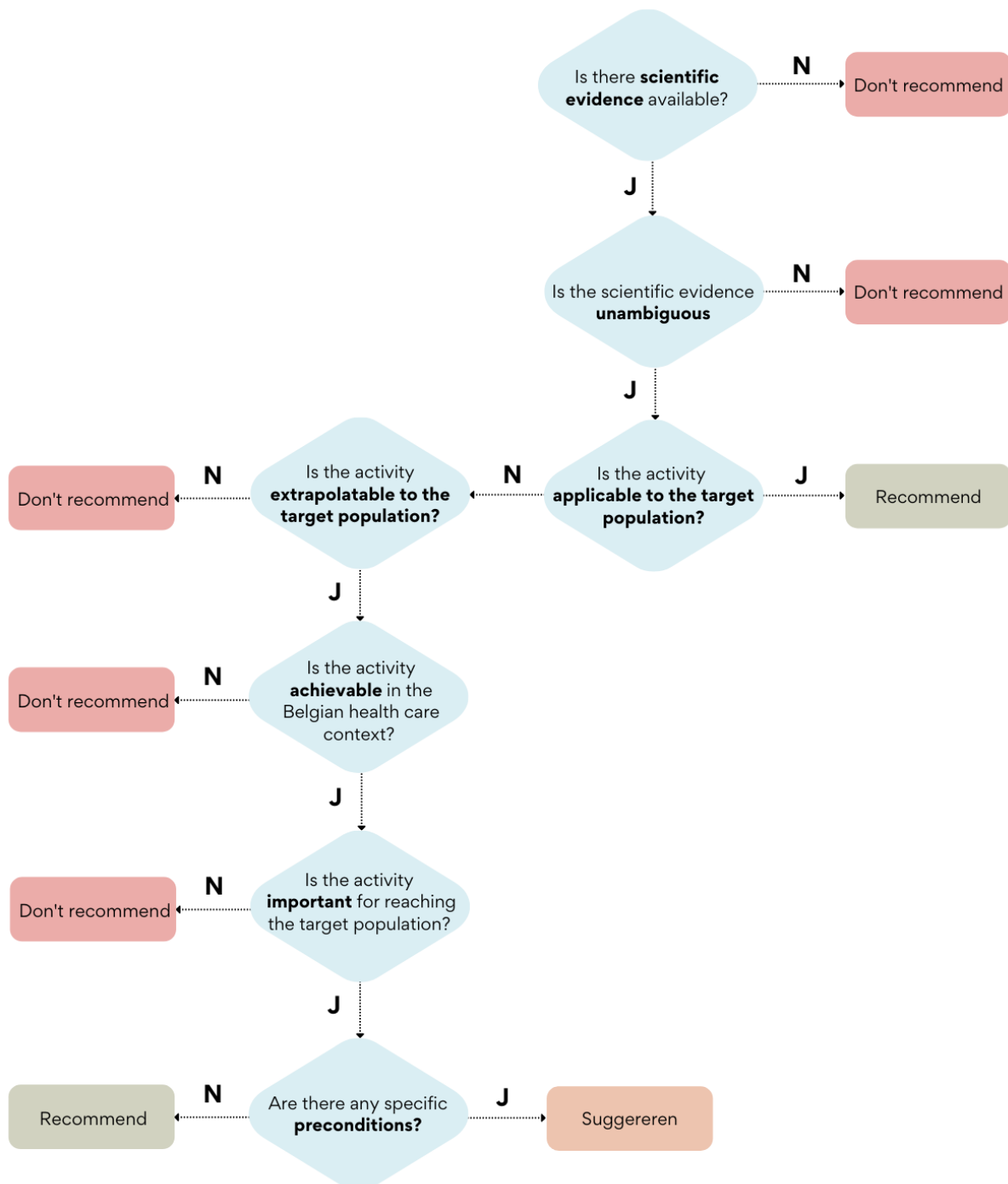


Figure 9 Decision tree used as a basis for discussion at the panel meetings.

During the panel discussion, the quality of the *body of evidence*, the advantages and disadvantages (including costs), the risks and preferences of the target group, the potential extrapolation of the interventions to the target group, the feasibility of the interventions within the Belgian care context and the importance of this communication strategy in the context of reaching the target group were taken into account. Furthermore, the decision tree was used to ask the panel members if there are any preconditions to be met (= impeding factors) in order for an activity to be implemented.

The plenary discussion aimed to reach a consensus on whether to recommend, not recommend or suggest the activity. When boundary conditions were identified by the panel, which the government or health care institution has to meet in function of a concrete implementation, the activity was at most 'suggested' rather than recommended.

These preconditions were added as explanatory notes to the recommendation. This suggestion can be seen as a weak recommendation.²³

Each suggestion or recommendation was recorded by consensus. To this end, the chair of the guideline development group summarised the recommendation after the panel discussion, and after approval by all panel members, this was noted in the minutes of the meeting. These recommendations were sent electronically to the full guideline panel after the meeting for review and final approval.

2.6.2 DRAWING UP EVIDENCE-BASED RECOMMENDATIONS

The Evidence-Based recommendations were drafted by the panel during the consensus meeting (as described above) and finalised after review by external experts and final validation by the panel chair.

The questions below were put to the panel and answered using the decision tree (Figure 4). The panel chair named each time (1) the outcome and direction of the scientific evidence and (2) the unambiguousness of this evidence. Afterwards, the panel discussed (3) the extrapolation of this evidence to the target group, (4) the feasibility of the action and (5) the value of the action for the target group. Finally, the panel was asked for any preconditions, which were noted both generally and per sub-target group. Sometimes some *reservations* about the intervention were also given.

A. EFFECTIVENESS OF MESSAGE FREQUENCY AND TIMING

Do we recommend that governments should be sparing in sending communications (such as 'health alerts') to the intended target groups?

We suggest this on the basis of the following observations:

1. The literature (Baseman et al., 2013) describes that a higher message frequency (on any channel) can lead to less recall of the message sent.
2. The scientific evidence is unequivocal; the more messages are broadcast, the less well-remembered the message is.
3. The evidence is partly extrapolatable to the target populations. Although the panel recognises that - from a didactic point of view - repetition of messages can be positive, the fact that more communication can lead to confusion is recognisable. This was strongly emphasised during the COVID-19 pandemic; the target group received too much information through various channels.
4. The activity is partly feasible. The frequency of crisis messages is not always easy to control. Even if a government agency decides to communicate sparingly, there may still be a reduced recall due to an abundance of communication through other channels.

²³ Although the evidence-based recommendations were formulated during the consensus meeting in accordance with the GRADE methodology, no specific degrees of recommendation were awarded. However, the criteria that determine the degree of a recommendation including the quality of the *body of evidence*, the pros and cons, the risks and the preferences of the target population) are used to weigh up whether or not to include a recommendation in the guideline. When an activity is recommended, this corresponds to a strong degree of recommendation, whereas suggesting an activity corresponds to a weak degree of recommendation. The Panel agreed with this approach.

5. Keeping an eye on communication overload is important for the target group to ensure that people do not cut themselves off from official channels.

Preconditions (general):

- Too much **repetition** of messages is not recommended. However, the panel indicates that repeating messages in a different *form* can have a positive effect on the *recall* of a certain messages. It is recommended that a substantive *recap* in a more *catchy* form and with visual support (in the form of pictograms and/or infographics) be repeated; for example in the form of a one-pager, carousel post on social media or short film. Content consistency is important here.
- The panel stresses the importance of "**streamlining**" information, for example by planning specific communication moments, clustering information or highlighting specific changes. For the target groups of this guideline, it would be desirable that first the essential measures are presented clearly and briefly (possibly with visual support) and only then the exceptions to these. The difference between essentials and exceptions is often unclear in pandemic crisis communication.
- Information must be easily and directly available without registration procedures.

Preconditions for people with low literacy skills:

- According to the panel, crisis communication messages (in the form of emails, but also on websites, in letters, video messages and leaflets) often have a language level that is too high. Not only considering people with low literacy skills, but also the general population in Belgium, the panel believes it is necessary to test the language level before sending out the message. The panel states that a text at language level C1 would be too difficult for the majority of the population. A text at level B2 is still difficult to understand for many citizens; for people with low literacy skills texts are even more difficult to understand. The panel recommends to use language level B1, as this language level should be understandable for the majority of the population.
- The panel judges that the language level could be adjusted as standard, provided that a government organisation has the right people to do so. This could be done according to the principle of *Universal Design*²⁴, or 'inclusive design'. The panel states that what is good for specific target groups (such as the low-literate) can also provide more comfort for other groups. 'Even for long-suffering people, messages in accessible, understandable language are more pleasant to read - and probably easier to remember.'

Preconditions for foreign-language speakers:

- Obviously, it is important to make provided health alerts available in as many languages as possible.

Concerns:

- As health care workers form the population of this study, it is worrying that (even) they do not remember or receive the messages correctly after only a few repetitions. The panel

²⁴ In a Universal Design approach, a communicative product is designed in such a way that as many barriers as possible are eliminated, so that it is accessible to multiple target groups without the need for additional adaptations.

indicates that if this is true for care workers, the effect is probably even stronger for people who experience communication barriers.

- According to the panel, we should keep in mind that communication flooding is always lurking, due to the enormous supply of crisis information on, for example, social media during a pandemic. It is impossible to shield people from this completely. For non-Dutch speakers and people with low levels of literacy, it may be important to work with trusted intermediaries who can help filter out this information. For people with sensory impairment, the reverse is often true. They receive the information only fragmentarily.

B. EFFECTIVENESS OF THE CHANNEL

Do we recommend email as a channel for sending crisis communication (such as "health alerts") to the intended target groups?

No, we do not recommend this.

1. The literature (Baseman et al., 2015) indicates that email messages can provide a higher recall than messages by fax or text message.
2. The scientific evidence is not entirely unambiguous. When taking into account the fact that one can receive the message (compared to a situation where the message is sent without taking into account the accessibility of the channel) the fax scores as high as a message by email.
3. The evidence cannot be extrapolated to the target group. The panel does not consider email messages to be ideal, certainly when the language level is high. Especially for people with low literacy skills, email as a channel is less accessible than, for example, a chat application.
4. Sending email messages is in principle feasible in the context of Belgian healthcare, but is not recommended as a primary channel.

Concerns:

- The information sent should be freely and easily **accessible** to all target groups. It should not be necessary to go through long - and for some groups complicated - forms in order to receive effective crisis communication. Registration forms are undesirable because people do not like leaving personal details, because they already have to fill in too many forms (another form of overload) or because the text on the form is not clear enough. Whether or not people have mastered digital skills also plays a role and can, according to the panel, make communication less accessible. The panel mentions the example of online tools that require the user to prove that he is not a robot (by entering handwritten letters or, for example, recognising zebra crossings in photographs). For many people, this is not an easy task.
- For people with hearing impairment, the **context** of a message is often missing. For example, people receive a text message telling them to close all the windows and stay inside, but sometimes - because they have not received other messages - they do not understand why they should do this. This may also apply to people who do not understand the language of the message.
- The channels used should be tailored to the specific (vulnerable) sub target group. There is no perfect 'one size fits all' channel for inclusive crisis communication.
- The panel states that the **communication channels** mentioned in the scientific evidence *are not* suitable for the target group. The use of the fax is strongly discouraged in the current time context and messages via email are seen as non-ideal; these often do not

reach the target group sufficiently and are not read thoroughly according to the panel. For the sub target group of people with hearing disabilities, there is enthusiasm for health alerts via text messages (SMS), but the panel suspects that channels such as chat applications, which can also be used to send short, unambiguous messages, could offer a more inclusive alternative. Visual messages (such as photos, videos and infographics) and audio messages can also be sent via such channels (Shah & Kaushik, 2015).

Do we recommend SMS as a channel to reach vulnerable target groups in times of a pandemic?

We suggest this.

1. In the intervention study by Bahety et al. (2021), taking place in rural India, participants received two text messages spread over two days. The study examined whether these messages would increase their knowledge of COVID-19 - and their intention to engage in COVID-19 prevention behaviour. According to Bahety et al. (2021), the text messages had no effect since they were sent several months after the pandemic outbreak, because they were 'dry' text messages with no audio or video, and since a large part of the target group is low-literate.
2. The scientific evidence is not entirely unambiguous; text messaging occasionally has a negative effect on knowledge and prevention behaviour - and the effects are mostly non-significant.
3. The evidence is partly extrapolatable to some of the sub-target groups. Because of the lack of a visual or auditory component, text messaging is seen as non-ideal, and because of the language comprehension required, it is seen as non-ideal for a large part of the target group. For the people with hearing impairment, however, SMS is a useful channel.
4. Sending text messages in a pandemic context is feasible, but (5) not equally desirable or important for all target groups.

Preconditions (general):

- Text messages should always be drafted in simple language;
- Consideration must be given to how reliable the SMS message appears to the recipient. Recipients quickly get the idea that an SMS message is 'fake', certainly if they do not know the sender's number (see: Hiltz & Van de Walle, 2012).

Do we recommend video as a channel to reach vulnerable groups in times of pandemic?

We suggest this.

1. Scientific evidence indicates that video messages increase knowledge of a pandemic and the measures to be taken (Mistree et al, 2021; Torres et al, 2021; Van Dornael et al, 2021).
2. The evidence is unequivocal. Video always increases pandemic knowledge among respondents. Certain forms (see 'effectiveness of the form') do have more effect than others.
3. The evidence is extrapolatable to the target group. Video is seen as a useful tool to increase knowledge of a pandemic and the measures to be taken.
4. Sending video messages is feasible in a pandemic context.
5. Video is seen by the panel as an important channel for disseminating crisis communication.

Preconditions (general):

- Video messages should be as short as possible (preferably not much longer than one minute, according to the panel);
- Above all, the messages must be simple and the essence of the crisis message must be central.

C. EFFECTIVENESS OF THE FORM

Do we recommend non-narrative, didactic video clips for crisis communication in a pandemic context?

We suggest this.

1. The literature (Bekalu et al., 2018) indicates that non-narrative, didactic messages convey the information in a health crisis better than messages in a narrative form.
2. The scientific evidence is not entirely unambiguous; the direction may have been influenced by the choice of the narrative clip (a film clip that was not well understood). Other studies indicate that video clips with a storytelling element can actually be effective in getting a message across. For example, storytelling can make a crisis message easier to understand and increase trust (Coombs & Holladay, 2002; Lee & Jahng, 2020).
3. The evidence is partly extrapolatable to the target populations. Non-narrative, didactic video messages can for example help to convey the essence of a crisis measure. But the panel *does not believe* that they necessarily work better than narrative video clips. The panel states that the form that best fits the purpose and message should be examined.
4. Sending non-narrative video messages is feasible in the context of Belgian healthcare.

Preconditions (general):

- The panel stresses the importance of a **combination of narrative and non-narrative elements** in a video clip, depending on its objective
- The panel finds that non-narrative elements may work better for conveying the "essence"; for example, in an emergency appeal, or for listing new crisis measures. According to the panel, the storytelling form works well when the recipient needs to be convinced of something, such as complying with a certain social measure, taking certain medicines or vaccinations or going for a screening. The story provides a situation outline that can make abstract information more concrete; the person can empathise with the character's motivations to decide for themselves whether or not to do something. Storytelling also works well to portray certain exceptions to the measures. For example, an outline of what people should do if they travel during a pandemic.
- According to Krause and Rucker (2019), stories have great persuasive power - and it would therefore be good - or at least not bad - to put facts in a narrative framework. Their experiments show that 'weak facts' (facts with low persuasive power, such as 'this pill works one hour after taking it') benefit more from narrative elements than 'strong facts' (facts with high persuasive power, such as 'this pill works five minutes after taking it'). Strong facts are better conveyed without a narrative framework (Krause & Rucker, 2019).
- When the authorities use narrative elements to get a certain message across, this must, according to the panel, be done very carefully and in a well-considered way, to ensure that the message actually connects with the world of its recipients. In a crisis situation, communication usually has to take place very quickly, and then creating a storyline and storyboard may take too much time. It is then easier to switch quickly to non-narrative didactic clips.

Preconditions for people with hearing impairment:

- When video clips are used, the auditory impaired must take into account the information overload *within* the transmitted message. For example, people with hearing impairment may experience visual noise if a sign language interpreter and infographic appear simultaneously in a video message. Slowing down the message - and creating time to absorb both images - is very important for this target group.
- Within the group of people with hearing impairment, there are different crisis communication needs to be taken into account. There is a difference in understanding spoken or written language between persons who were born deaf and persons who have become deaf. The latter group is usually more familiar with spoken and written language and often needs subtitles, whereas the group born deaf often needs sign language to fully understand the message.

Do we recommend crisis videos with concept explanations over those with facts only?

We suggest this.

1. The scientific evidence (Mistree et al., 2021) shows that videos with concept explanations significantly increase pandemic knowledge compared to videos that only provide facts.
2. The evidence is unequivocal; the longer video (20 minutes) significantly increases knowledge of COVID-19 than the shorter video (10 minutes).
3. The evidence can be extrapolated to the target group that needs an explanation of the concepts in addition to the 'facts'.
4. The activity is feasible within the Belgian healthcare context.
5. The activity is important for the target group.

Preconditions (general):

- The duration of both videos used in the study by Mistree et al. (2021) is far too long to use in a 'real' setting, according to the panel. The panel recommends shorter videos. According to the panel, it would be very difficult to keep the respondents' attention with these videos. The panel recommends using short videos (preferably not much longer than one minute);
- As mentioned earlier, it is important that - when additional explanations are given - the essence of the crisis message remains central.

Do we recommend wordless, animated videos for crisis communication in a pandemic context?

We suggest this.

1. Van Dormael et al. (2021) investigated whether the use of the CoVideo; a wordless animated video with COVID-19 information could increase pandemic knowledge. The video was distributed on social media.
2. The evidence is unequivocal. The CoVideo significantly increased knowledge of COVID-19 compared to the control group and the group shown a placebo video.
3. The evidence is extrapolable to the target group; the panel thinks that the wordless animation videos are interesting for the target group.
4. The use of animation videos is feasible within the Belgian healthcare context.
5. Animated videos are important for the target group.

Preconditions (general):

- The animation videos used must be short.
- In addition, simplicity must be ensured; with little abstraction and a focus on the essence of the message.

Do we recommend the use of infographics for crisis communication in a pandemic context?

We suggest this.

1. The scientific evidence (Agle et al., 2021) shows that infographics about scientists increase trust in science.
2. The evidence is unequivocal; all infographics lead to more trust in science and all infographics are seen as reliable.
3. The evidence is extrapolatable to the target group; infographics are seen as valuable for different sub-target groups.
4. The use of infographics is feasible within the Belgian healthcare context.
5. Infographics are seen by the panel as important for the dissemination of crisis communication.

Preconditions (general):

- There are many different forms of infographics. The panel spoke of comic-like forms (such as the infographics used in the study) and more static forms, such as infographics that are used, for example, to provide simple insight into statistics. The panel indicates that infographics should not be too abstract and that not too much information should be put into one image; simplicity is an important precondition. Here too, the essence of the crisis message must be central.
- When using visual material such as infographics, it is important to ensure diversity in the people depicted and to avoid stereotypes; the panel recommends that illustrations (also) include a coloured doctor, a man who looks after the children or a professional with a visible disability.
- The panel recommends using symbolism and iconography rather than numbers for infographics that address statistics, to accommodate people who have difficulty with abstraction and interpreting numbers.

D. EFFECTIVENESS OF THE SENDER

Do we recommend doctors as transmitters of crisis communication in video messages?

We suggest this.

1. Torres et al. (2021) and Okuhara et al. (2020) indicate that videos in which doctors deliver a health crisis message increase knowledge of - and willingness to follow - crisis measures.
2. The evidence is not entirely unambiguous. Whereas doctors significantly increase knowledge and willingness to protect in both studies, the study by Okuhara et al. (2020) shows that in some cases other senders have a greater effect. For example, respondents who received an emergency message from a COVID-19 patient or a resident of a COVID-19 outbreak area felt more vulnerable to the virus than respondents who received the emergency message from a doctor.
3. The use of doctors for crisis information videos can be extrapolated to the target group. Doctors generally have a position of trust and authority. According to the panel, this is no different for people from special target groups.
4. Sending messages by a doctor is possible and feasible within the Belgian healthcare context.
5. According to the panel, this can be valuable for the target group.

Preconditions (general):

- The panel indicates that consideration should be given per message and per subject to who is the best sender for a certain message. For example, patients can also play a major role in conveying the seriousness of a pandemic context; think of patients who tell from their hospital beds how COVID-19 has affected them and who urge citizens to be careful. This also emerges from the research of Okuhara et al. (2020).
- Some (exceptional) groups may be less likely to trust a message from a doctor, for example because they have had negative experiences with medical staff, or because they do not have a good feeling about the medical world for some other reason. This is an issue that can also manifest itself in other target groups.

Preconditions for low-literacy

- People with low literacy skills generally make more use of the medical system and also visit doctors and other medical professionals more often (Van Ee & Van Den Muijsenbergh, 2017). According to the panel, the doctor could be an important intermediary for them in receiving crisis communication.

Do we recommend the use of "verified transmitters" when sending out crisis communications?

We suggest this.

1. In the study by Chen et al. (2021), participants received messages from verified or unverified senders on the Chinese social media platform Weibo, which is similar to Twitter. The study investigated whether the verification of the source, type of source; the main sender or sharer (the person who shares or replies to an original posted message) - and the location of the message (on the *post wall* or in private chat) affects the knowledge of influenza and the intention to seek information about influenza.
2. The evidence is unambiguous; verified sources generate more knowledge and search intent. In addition, the main source generates more knowledge and search intent than the denominator of the message.
3. This is partly extrapolatable to the target group; on the one hand, the panel thinks that seeing a verification checkmark, or seeing a post from an official channel can create more trust among recipients. At the same time, the panel doubts whether some sub-target groups understand what such a verification symbol means. This assumes a certain degree of knowledge of the system. In addition, there are also groups that mistrust messages from the government; verification will not change their mistrust. Certainly in Belgium, confidence in the government is very low (Motivatiebarometer, 2021).
4. Working with verified transmitters is feasible within the Belgian healthcare context.
5. This activity is seen as somewhat important by the panel.

Preconditions (general):

- Given the low level of trust in the government in Belgium (Motivatiebarometer, 2021), the panel recommends including other verified channels for sending crisis communications; such as other reliable institutions, organisations and individuals such as doctors.

E. EFFECTIVENESS OF TAILOR-MADE COMMUNICATION (TAILORED TO IDENTITY AND APPEARANCE)

Do we recommend tailoring crisis messages to the identity of the recipient?

We do not recommend this.

1. Dennis et al. (2021) indicate that messages tailored to (religious and economic) identity increase the motivation for following measures.
2. The evidence is clear: identity-based messages increase the motivation to comply with measures (such as staying at home during a pandemic).
3. The evidence cannot be extrapolated to the target group. The panel expects that focusing on a certain religion or identity will even be counterproductive for certain groups, since it may create the idea that the group itself does not follow the measures properly. This may not only be undesirable for the group approached in this way, but may also promote polarisation.
4. The panel also suspects that matching messages to identity is difficult in the Belgian healthcare context, as Belgian privacy laws do not allow this or allow it to a lesser extent than the laws in the US, where this research took place.

Do we recommend tailoring crisis messages to the appearance of the recipient?

We do not recommend this.

1. Torres et al. (2021) investigated whether the skin colour of the doctor delivering a crisis message affects the recipient's absorbed knowledge and willingness to act. The evidence shows that where seeing a doctor significantly increases knowledge and willingness to protect, skin colour has no effect.
2. The evidence is unequivocal; it does not matter what colour the doctor's skin is; he or she always increases the recipient's knowledge and willingness to protect themselves.
3. The panel does not see any added value for its target groups in 'matching' the appearance of doctors with the appearance of recipients. However, the panel does think it is important that diversity is taken into account when using visual material. If a doctor is portrayed, it is nice if he is not always a stereotypical white man, but the appearance of the doctor does not have to match the appearance of the recipient.

F. EFFECTIVENESS OF OPEN AND PROACTIVE COMMUNICATION

Do we recommend concealing exceptional situations within a health crisis after communicating a measure (such as the limited likelihood of the occurrence of disease symptoms after a quarantine period)?

We do not recommend this.

1. Despite the fact that the scientific evidence (Johnson et al., 2015) indicates that mentioning possible exceptional situations within a pandemic may lead to reduced trust in health experts who, for example, set a quarantine period or impose other measures, the panel considers the withholding of important information to be inappropriate. In the first study by Johnson et al. (2015), a request to go into quarantine for 21 days was first sent out to respondents. Then they received a message indicating that disease symptoms may occur even after this quarantine period. The timing of this second message (after the request to quarantine) led to distrust.
2. The evidence is unequivocal, but not very strong; citizens' trust in health experts and politicians in identifying exceptional post-quarantine situations does not decline to such an extent that it turns negative.
3. According to the panel, deliberately concealing exceptional situations at any time is not positive. Since concealing information can lead to distrust, for example if the exceptional situation appears in the news (see study 2 by Johnson et al., 2015), the target group must be informed of this. However, the experts argue that these exceptional symptoms of illness should only come up later in the crisis message; the essence of the message should be given priority.
4. Concealing medical exceptions is not desirable in the Belgian healthcare context, but exception situations should not be too prominent either.

Do we recommend that pandemic experts proactively explain their choice of certain crisis measures and the possibility of exceptional situations in advance?

We suggest this.

1. The second study by Johnson et al. (2015) emphasises the importance of communicating *in advance* the reason behind a particular measure when it is implemented. According to Johnson and colleagues (2015), in the case of an exceptional situation (such as symptoms of disease occurring after a quarantine period), it is advisable to mention it and to communicate *why* a certain measure (in this case the length of a quarantine period) was chosen. Citizens who were informed in advance about possible exceptional situations and the reason behind the crisis measure lose less trust in health experts and institutions than people who did not receive this information and 'spontaneously' came across a news item about the medical exception.
2. The evidence is unequivocal; proactive and open communication about the reason behind crisis measures and the possible emergence of exceptional situations resulted in a less pronounced decline in confidence among respondents.²⁵
3. This is partly extrapolatable to the target group. Transparency and explaining the reason behind a certain measure builds trust with the target group and ensures less frustration when something changes within the crisis policy.
4. This is feasible within the Belgian healthcare context.

Preconditions (general):

- While transparency is desirable for the target group, there is also a need for more straightforward communication, where the essentials are clearly stated. Mentioning exceptional situations and considerations could cause more noise and make the message more complicated. It must be ensured that the essence of the message remains central and that minor exceptions do not receive too much attention in a given message. They should only be mentioned at the end.
- Simple communication can be achieved by using simple language, but also by having a clear structure (for example, by using subheadings, listing things and putting important words in bold).
- Changes of course and strategy within a pandemic context cause confusion among the target group. Clearly explaining the 'why' behind a change of course could provide more calm, clarity and confidence. It would possibly help if it were made clear in advance when a change of course could take place (for example: "when there are X infections we will go for strategy Y"). However, such a strategy requires a certain level of abstraction and is therefore not equally effective for every target group.

²⁵ The difference between the two studies by Johnson et al. (2015) is, firstly, the time at which the messages about the later occurrence of symptoms of disease were sent: in study 1, this was after the request to quarantine. In Study 2, it was in the message requesting citizens to quarantine. Secondly, study 2 measured the effect of an *explanation* for a particular measure on trust in health experts. Although the results may appear somewhat contradictory (less trust when exceptions are mentioned in study 1 versus more trust when exceptions are mentioned in study 2), the measurements were different.

ADDITIONAL SUGGESTION FROM EXPERT PANEL BASED ON CONSENSUS: THE USE OF INTERMEDIARIES TO REACH CERTAIN SUBGROUPS

During the panel discussion, the use of intermediaries regularly came up as a possible precondition for an inclusive crisis communication policy. Intermediaries - people who act as information media for others - (Buchanan et al., 2019) are seen as important for people in vulnerable positions (Buchanan & Tuckerman, 2016). Interpersonal sources are preferred over non-interpersonal sources because they contain a component of interaction and can often be better tailored to the specific communication needs of the target group. A study by Liem et al. (2020) suggests that intermediaries such as employers and organisations that target particular groups can be used to minimise pandemic *knowledge gaps*. Liem et al. (2020) focused on migrant workers and found that participants who received information from their boss, local social network or migrant organisation were able to answer more COVID-19-related questions correctly.

However, after discussion in the panel, the use of intermediaries turned out not to be equally desirable for all sub target groups in all forms. The panel pointed out the difference between deploying persons within and outside the *ingroup* of a person to be reached. With ingroup intermediaries we mean here: the deployment of persons who belong to the social-cultural group of the recipient. For foreign-language-speaking newcomers, the deployment of ingroup intermediaries can be positive, as also mentioned in the study by Liem et al. These intermediaries are able to summarise the communication appropriately (and in the target group's own language) - and because of their socio-cultural similarity to the target group, they may inspire more confidence in the message and the crisis policy.

However, for people with a migration background who have been living in Belgium for a longer time, in-group intermediaries can be perceived as negative and stigmatising according to the panel; people with a migration background often do not like to be seen as a group that only wants to be approached by its own group members.

For people with sensory impairment, intermediaries are generally seen as undesirable. The panel judges that when the use of intermediaries is necessary for people with hearing and visual impairments, the communication is not inclusive enough. People with sensory impairment should not be dependent on third parties to receive and understand crisis communication.

2.7 DISCUSSION AND CONCLUSION

This guideline examined how crisis communication can be made more inclusive, so that groups with special communication needs can better receive and understand crisis messages. Based on the scientific evidence found (n=13 studies), the expert panel reached the following conclusions regarding crisis communication channels, form, messengers, timing and open, proactive communication:

Although, according to the panel, there is no *one-size-fits-all channel* for crisis communication, the experts have a preference for channels that allow the dissemination of short messages with an audiovisual component. Chat applications are seen as suitable channels for crisis communication. According to the panel, text messaging is a suitable channel mainly for the sub target group of people with impaired hearing. The panel judges that a disadvantage of text messaging is that the sender is often unknown - and therefore not trusted.

With regard to the **timing** of crisis communication messages, the panel suggests being vigilant against communication overload. The panel recommends not disseminating too many messages in the same form - and keeping the messages issued as concise as possible. Messages that are too long and complex are often not well received, according to the experts. The timing of the message itself will have to be differentiated per target group. While some groups have a need for slow speech, others may find this irritating.

According to the panel, the **form of** crisis communication must above all be streamlined. The panel suggests that in all crisis communications, the essence should first be stated concisely and clearly (possibly supported by *visuals*) and only then the details and exceptions should be discussed. The message must be communicated rapidly; the panel therefore prefers short (animated) videos and *simple* infographics that allow the message to come through at a single glance. The language in crisis communication messages must above all be simple - and here and there in terms of pace must be adapted to sub target groups.

The panel strongly advises against adapting the form of communication specifically to the **appearance or identity** of the receiver - for example by only showing people in the picture who belong to the ingroup of the receiver, or by responding to the religion of the receiver in a message - since this can come across as stigmatising. While this form of *identity matching* is advised against, the panel does underline the importance of being sensitive to diversity. Especially when using visuals, it is important to also depict people of colour or people with a disability. However, these portrayed persons should be 'randomly diverse' and not focused on the appearance or the socio-cultural identity of the recipient.

Trust in the **messenger** is a certain condition for the reach of crisis communication. As trust in the Belgian federal government is generally low (Motivatiebarometer, 2021), it is recommended to (also) work with other channels. Doctors are seen by the panel as good and reliable messengers of crisis communication, but the panel indicates that, in certain situations, other channels (such as patients) can convey a crisis message at least as well. Although verified channels on social media may inspire more trust in the recipient, the panel does not necessarily recommend them, as part of the target group may not (fully) understand the concept of verification.

The panel suggests communicating **openly and proactively** with the target group, but in a streamlined manner. Exceptional situations should not be hushed up - and it is desirable to explain certain concepts and government decisions. However, the core message must remain central.

As an additional suggestion, the panel mentions the use of **intermediaries** for foreign-language speakers and people with low literacy skills. The latter must be interpreted with the necessary caution, as there were no studies available that fell within the inclusion criteria that could confirm this. For people with sensory impairment, this is *not* recommended - and the use of intermediaries should certainly not be the *only route* of crisis communication; if intermediaries are an indispensable link, then the communication is not inclusive enough.

The recommendations we make in this guideline may be largely translatable to a general population.

2.8 PEER REVIEW

A draft of this guideline was submitted to all panel members for validation and discussed with all partners involved in the research project "Towards an inclusive COVID-19 crisis communication policy in Belgium: developing and validating strategies for multilingual and accessible crisis communication", of which this guideline is a part.

2.9 IMPLEMENTATION & DISSEMINATION

During the drafting of this guideline it emerged that simplifying and streamlining crisis communication can be beneficial not only to the target groups of this guideline but to society as a whole. We therefore advise governments to use the *Universal Design principle* as a basis when implementing this guideline and when developing new means of communication. According to the panel, crisis communication must be accessible to everyone and the information must be easy to understand without too much effort. This requires a certain flexibility in the design, whereby means of communication may have to be adapted here and there to certain special communication needs.

The Panel encourages governments to take the following into account:

- 1. Care for the multicultural and multi-linguistic context:** the current language legislation complicates an optimal crisis communication policy in the Belgian multicultural and multi-linguistic context. For example, the language legislation states that the freedom of language is restricted in the use of language in administrative matters, such as in contacts of government services with citizens and vice versa. The panel is of the opinion that - in order for crisis communication to be successful - the language legislation in the field of crisis communication must be relaxed. The core of crisis communication should, in view of the seriousness of the context (health crisis) and the risk of receiving *fake news* about this context (that may well be available in an understandable language), be available in the mother tongue of the recipient as much as possible.
- 2. Testing and lowering the language level:** the panel recommends that the language level of existing crisis communication be thoroughly tested - and lowered, possibly to B1 level. For a large part of the population, this could ensure a better understanding of the message. People who understood the message before might also consider a lowered language level more comfortable. They may now read the message more quickly - and the message may have a better chance of sticking.
- 3. Diversity without 'identity matching':** in the implementation of this guideline, the panel finally asks to consider the *diversity* of the persons portrayed. In crisis communication, there should especially be variation in who is speaking; or who is depicted as an 'infected person'. In this way, crisis communication could stimulate less a sense of 'unity' as a society; a sense that we *must overcome* a health crisis *together*. Messages that are geared to one specific group in terms of images or textual content do not do this, according to the panel.

DISTRIBUTION

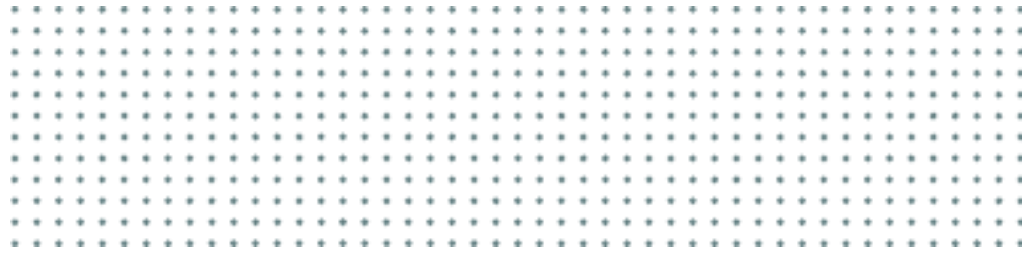
This guideline was initially going to be disseminated through an inclusive meeting at which the findings of this guideline, as well as the findings of related studies, would be presented together. This meeting was cancelled due to the ongoing COVID-19 crisis. The findings will now be shared

on a joint website²⁶, supported by dissemination of the results on Social Media. The dissemination of the results will be as inclusive as possible; in understandable language, supported with visual aspects.

2.10 UPDATE

Ideally, the literature search should be repeated every 5 years to determine whether new studies meeting the methodological and content criteria described in the methodology Section 1.2 were published during this period and can be added to the guideline under the same conditions as those described in the methodological section of this guideline. However, this repetition is directly dependent on the acquisition of additional resources and funding.

²⁶ <https://www.uantwerpen.be/en/projects/towards-an-inclusive-crisis-communication-policy/>



PART 3

EVIDENCE FROM PRACTICE

1 EXPERIMENTAL DEVELOPMENT OF ACCESSIBLE COMMUNICATION PRODUCTS

This chapter of the report discusses the outcomes of the **experimental development of accessible communication products** in collaboration with **intermediaries and end-users**. The chapter thus presents the gathered evidence from practice through a process of **collaborative product development** in which the intermediary project results available at the time (see PART 4) are taken on board as much as possible. As noted in the introduction of this report, ‘practice’ should thus be understood in a narrow sense as pertaining to the activities of communication product development, adaptation and evaluation.

This development process was carried out by UAntwerpen, KULeuven, Atlas and NCCN as part of the third Work Package. The team involved in this product evaluation and development process included:

- Mieke Vandenbroucke (UAntwerpen)
- Nina Reviers (UAntwerpen)
- Gert Vercauteren (UAntwerpen)
- Bonnie Geerinck (UAntwerpen)
- Lien Vermeire (NCCN)
- Heleen Van Opstal (Atlas)
- Cornelia Wermuth (KULeuven)

In this chapter, this group of researchers will be referred to as ‘the research team’.

1.1 INTRODUCTION

One of the aims of the ICC project was **to evaluate the provision of (re)translations and access services in the supply of COVID-19 communication** by Atlas Integratie & Inburgering Antwerpen, on behalf of the National Crisis Centre (NCCN), and to identify ways for improvement. Access services here refers to the provision of measures and adaptations to make communicative products more accessible for people with an impairment. Such services usually include, but are not limited to, subtitling (for the deaf and hard of hearing), audio description, sign language translation and easy language. This evaluation topicalised the current communication materials provided by the Belgian federal government, with a focus on the key indicators for inclusive COVID-19 communication formulated by the WHO, namely the *form* of the message and the *channels* used to disseminate the message to realise an effective outreach. The goals of this evaluation included:

- a) to describe and document the current communication workflow and strategy regarding COVID-19 information adopted by the federal government and to identify challenges that both Atlas and NCCN experienced at the time of the ICC project’s start in the spring of 2021;
- b) to provide an overview and initial analysis of the (re)translations and access services provided by the federal government;

- c) to experiment with the development and improvement of products within the workflow of Atlas/NCCN based on progressive insights from other project phases and research activities to support ongoing COVID-19 crisis communication efforts, and
- d) to involve advisory board members, users and experts-by-experience in the development and improvement of products.

The products that were analysed and developed in this phase, also served as input for roundtable discussions and focus group discussions that were organised at different stages of the project (see PART 4, Chapters 3 and 4, and PART 5, Chapters 1 and 2). The development and evaluation of products was thus organised progressively, in an iterative process as outlined in Figure 10 which led to the integration of progressive insights from the project in the experimental development phases from the earliest possible stage.

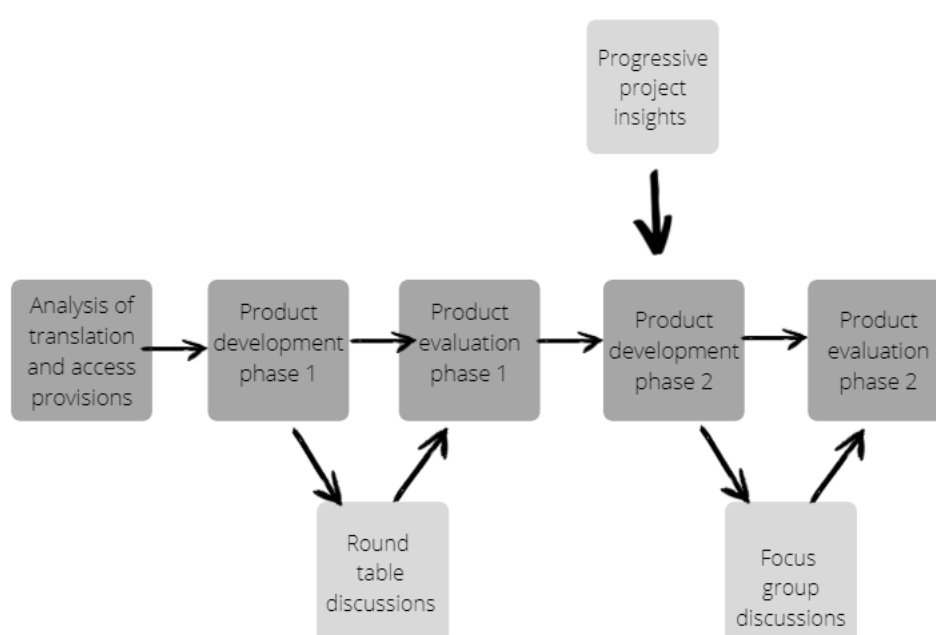


Figure 10 Progressive development and evaluation of COVID-19 communication products.

A detailed discussion of the input and feedback from key stakeholders and the results of the roundtable discussions and focus group discussions can be consulted in PART 4 and 5 of this report. This chapter reports on the lessons learned from the experimental development of inclusive and accessible COVID-19 communication products only. The chapter starts with a brief description of the current inclusive communication flow of the Belgian federal government in Section 1.2. Section 1.3 provides an overview and analysis of the accessibility services and (re)translations provided by Atlas at the start of the project in January 2021 and February 2021. Section 1.4 discusses the first product development phase and, finally, Section 1.5 discusses the second product development phase and its evaluation by the advisory board.

1.2 CURRENT INCLUSIVE COMMUNICATION FLOW OF THE BELGIAN FEDERAL GOVERNMENT

While regional and local authorities in Belgium also create and disseminate communication products related to COVID-19, the focus of the ICC project lies on crisis communication provided by the Belgian federal government. The federal government's communication products about COVID-19 are therefore the starting point of this project.²⁷ The federal government's information on COVID-19 is created and disseminated by the National Crisis Centre (NCCN), which mainly publishes this information via the website www.info-coronavirus.be in four languages: French, Dutch, German and English.

In addition, the NCCN provides (re)translations of its communication products in different forms for different target groups. At the time of the project these were published on a dedicated webpage of info-coronavirus.be, namely: <https://www.info-coronavirus.be/en/translation/>. These translation initiatives take into account the federal legislation pertaining to public language use and communication by the government ("Taalwetgeving") which allows the official use of other languages than the official national languages (FR/NL/DE) under specific circumstances.²⁸

In March 2020, in order to stop the wide spread of unofficial, translated material that often contained outdated information and/or was not translated by professional translators, the NCCN formed a partnership with Atlas - Integratie & Inburgering, CCVO (Crisis Center Flemish government), Wablieft vzw, Agentschap Integratie & Inburgering, IN-Gent and Setis W. They agreed upon a collaboration according to which:

- The NCCN would validate the source text that needed to be translated.
- Atlas - Integratie & Inburgering would give text advice and rewrite the text in Easy Language.
- Atlas - Integratie & Inburgering, Agentschap Integratie & Inburgering and Setis W would translate this text into +20 languages
- Atlas - Integratie & Inburgering would develop audio-versions in +20 languages
- Wablieft would transform the text into an animated video and/or an infographic

Next to the publication on the info-coronavirus.be website, all these partners would spread and promote the resulting material to their target audiences.

1.3 OVERVIEW OF PRODUCTS PROVIDED BY THE NCCN AND ATLAS AT THE START OF THE PROJECT

The first step of the evaluation of the COVID-19 communication products provided by the federal government entailed that the project partners Atlas and the NCCN provided an extensive overview of the types of (re)translations and accessible products that had been developed for different topics and different types of COVID-19 crisis communication. This included both urgent communication related to, for example, new safety measures as well as more durable, long term

²⁷ Other organisations that actively provide communication materials identified in the project are, to name only a few by way of example, Wablieft, Iriscare (Brussel), GGS & COCOM (Brussel), AVIQ (Wallonia), Kortom (National site with a master list of information and resources on COVID-19), Zuidpoort Gent. An important website in Flanders specifically is, for example, www.laatjevaccineren.be. This list, however, is not exhaustive as this was beyond the scope of the present project.

²⁸ See <https://www.vlaanderen.be/taalwetwijzer/> for more information.

information on COVID-19 health topics which is comparatively less subject to change over time. From this overview, the project team distilled the following types of (re)translations and accessible products provided at the time (February 2021):

- Text in **Easy Language** (“Klare Taal” in Dutch²⁹ and “langage Facile à Lire et Comprendre, FALC” in French), translated into several foreign languages. See Figure 11 for an example.

[Vertaling uit het Nederlands](#) | [Version en français](#) | [Deutsche Version](#)

Measures starting January 6

The government has set rules to stop the spread of the coronavirus. Follow these rules. This way, you will avoid becoming ill or making others ill. The police might check whether you abide by the rules.

Please note: some cities and municipalities will also have extra rules in place. Check the website of your city or municipality.

Tips for a safe autumn and winter

- Get vaccinated.
- Keep a distance of 1.5 m from other people.
- Wear a face mask.
- Ventilate well by opening the windows.
- Take a self-test regularly.
- Pay attention to vulnerable people. For example: people over 65 years old, people with heart, lung or kidney problems and people who are prone to infections.

Covid Safe Ticket (CST)

- In some places you need a Covid Safe Ticket, for example:
 - In cafes or restaurants
 - In fitness centers
 - At gatherings or events with more than 50 people indoors or 100 people outdoors
- The Covid Safe Ticket proves that
 - you have been fully vaccinated for at least 14 days.
 - or you have taken a negative corona test (maximum 72 hours old).
 - or you have recently had corona (not more than 180 days ago)
- You can find your Covid Safe Ticket at www.covidsafe.be or via the CovidSafeBE app.

Figure 11 A recent example of a text in Easy Language (retrieved on 09/02/2022).

- **Audio versions of texts** in Easy Language, translated into several foreign languages. [Click this link](#) for an example.
- **Animated video** messages, sometimes in Easy Language audio, occasionally with Dutch or French subtitles ([click this link](#) for an example; or see Figure 12 for a screenshot).

²⁹ See <https://www.diversiteitspraktijk.be/artikels/hoe-schrijf-ik-in-heldere-taal> for more information.



Figure 12 Example of animated video message in Easy Language audio.

- **Infographics** (“beeldtaal” in Dutch and “infographies” in French), usually provided in the official languages Dutch and French. See Figure 13 for an example.



Figure 13 Example of an infographic in Dutch.

- **Sign language video's** (Flemish Sign Language - VGT - and Belgian-French Sign Language - LSFB). See Figure 14 for an example of a screenshot of such a video in VGT.

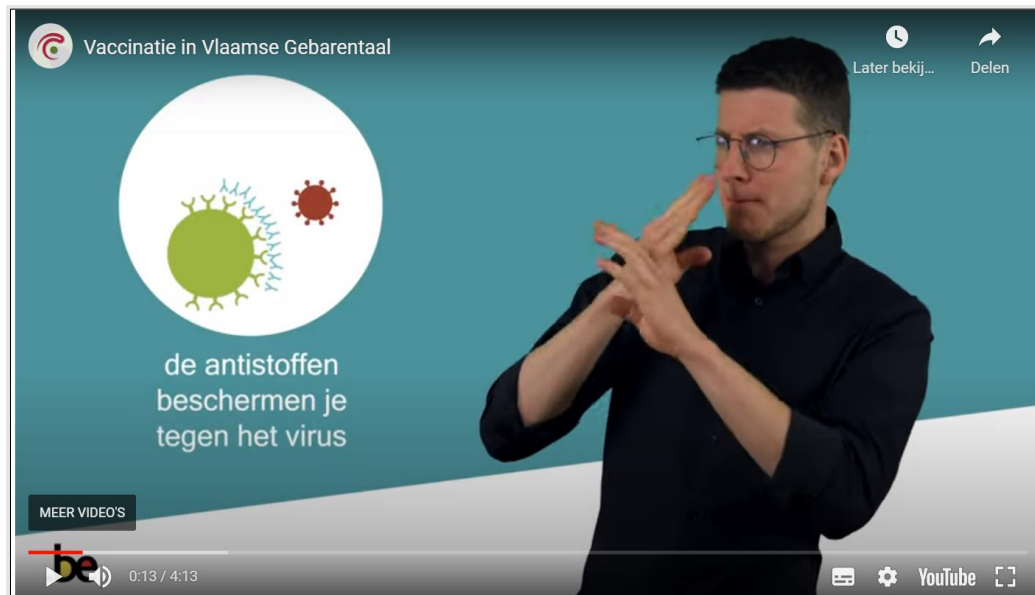


Figure 14 Example of a sign language video in VGT.

- **Press conferences** with live Flemish and Belgian-French Sign Language. See Figure 15 for an example.

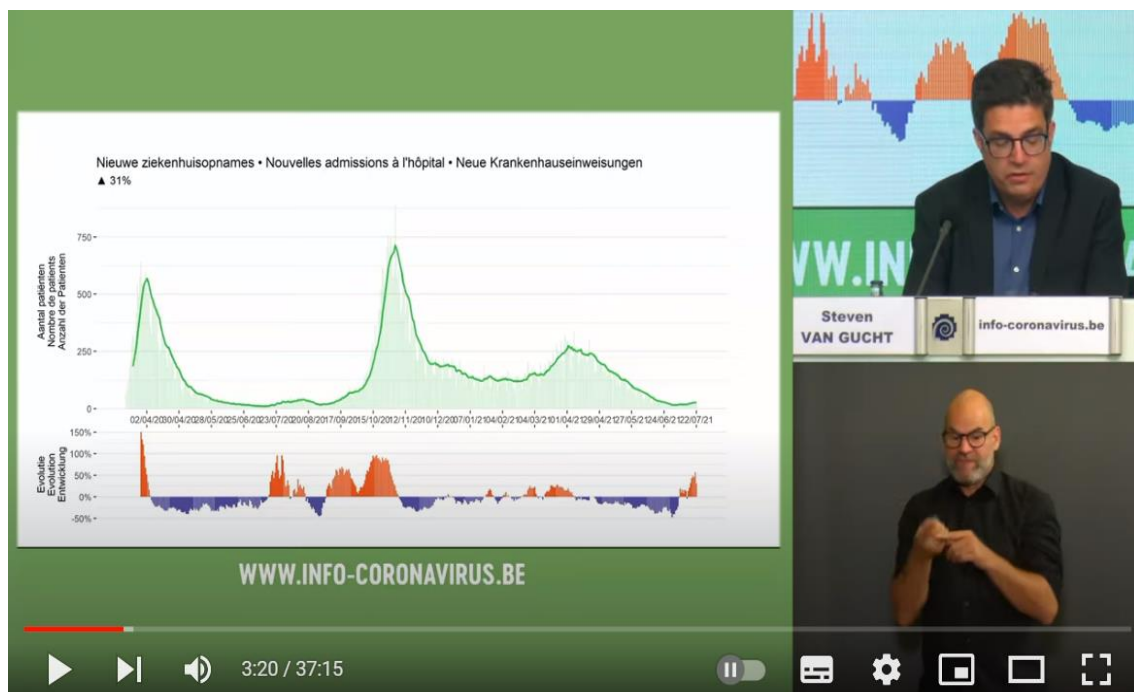


Figure 15 Example of a press conference recording with a live sign language interpreter in LSFB.

A list of **29 languages** was decided on by the NCCN into which translations were provided. However, not all texts were always provided in all of these languages. The following 20 main languages were included: French, English, German, Modern Standard Arabic, Albanese, Bulgarian, Chinese, Dari, Farsi, Hebrew, Italian, Pashto, Polish, Portuguese, Romanian, Russian, Serbo-Croatian, Somali, Spanish, Turkish. In some cases, additional languages beyond the initial 20 were provided, including: Kinyarwanda, Amharic, Armenian, Croatian, Lingala, Ukrainian, Slovakian, Slovene, Swahili, Tigrinya, Czech, Chechen, Urdu.

In the second step of the evaluation, the linguists and translation experts in the research team, together with Atlas and the NCCN, conducted an extensive analysis and evaluation of these products and the federal website info-coronavirus.be to identify barriers, questions as well as opportunities to be taken on board in the further steps of the project and in the development of communication materials within the project. The key findings resulting from this evaluation and a discussion per type of product are summarised below.

1.3.1 AUDIO VERSIONS

As part of the federal government's COVID-19 communication, audio files were created in several languages. This form specifically targeted at people with low literacy skills. However, it was believed that these audio versions could potentially benefit people with visual impairment as well, even though it was unclear at the time to what extent this format actually reached that target group.

The creation of audio files was reported to be time-intensive and therefore difficult for urgent communication messages. The research team discussed the potential benefits of the use of synthetic voices, as a means to provide audio versions in a much quicker way, but at the time there was little data or evidence on the suitability of synthetic voices for the intended target audiences. For this reason, the suitability of synthetic voices was listed to be explored in the roundtable discussions and focus group discussions.

1.3.2 TEXT FILES

Messages in written text form were provided by the NCCN on the website info-coronavirus.be in two ways: either texts published directly on the website, or texts published in the form of (downloadable) PDF files. During the discussion, the research team noted that written texts are important products for people with a hearing impairment and people with visual impairment, as an alternative to audio and video messages that were not always accessible at the time since they were not subtitled or audio-described. The importance of written text specifically applies to urgent information which needs to be publicly disseminated within a limited time frame, which poses a challenge for the creation of subtitles and audio description. However, these text files need to be published in an accessible form, i.e. the website and the PDF files need to meet necessary accessibility criteria. It was not clear to what extent the text files provided at the time were indeed accessible enough for these target groups, particularly for people with visual impairment who need to use screen reading software to get access to written information. For this reason, an accessibility audit was listed as one of the key necessities to optimise the accessibility of the info-coronavirus.be website.

1.3.3 INFOGRAPHICS AND VISUALS

The analysis of the existing communication materials by the research team revealed that many different types of pictograms and visuals were being used in terms of style, with little consistency across materials. Even for the same type of information (e.g. stay home when feeling ill) different visuals were circulating. In some cases, real-life photos were used instead of pictograms. In addition, infographics were published in PDF format, but the accessibility of those files for people with visual impairment (in terms of layout, readability, colour contrast, alternative text) was not always considered. As a result, the use of infographics and the best way to design and disseminate them, was a concern for the research team at the time.

1.3.4 (ANIMATED) VIDEO

An important question that was discussed by the research team when reviewing the existing video materials, was the number and types of languages in which videos should be provided, and in which form the language should be presented, i.e. as audio in different languages, as Dutch audio with subtitles in different languages, as Dutch text on screen, or with text on screen also translated into different languages? This was also noted down as something to explore in the project activities.

1.3.5 AUDIO DESCRIPTION AND SUBTITLING

The analysis showed that only a few videos were provided with intralingual subtitling for the hard of hearing and no videos included audio description (AD) for people with visual impairment. Audio Description is a verbal commentary that is added to the original (audiovisual) product to describe relevant visual elements verbally, in between dialogues and sound effects, so that visually impaired audiences can also follow the content of the video. An initial analysis of existing videos showed that not all videos at the time were designed to allow the addition of audio description: typically not enough time was provided in between voice-overs to describe the visuals. However, the need for audio description was sometimes also limited, as the voice-over already provided listeners with the necessary information and the visuals served a more illustrative function. This led to the question to what extent users appreciate AD for these videos, or in what circumstances versions without AD or a text alternative could be sufficient. An additional option that was explored, was the addition of an audio introduction preceding the video, in which the visual information in that video was summarised for people with visual impairment. These questions would also need to be explored in the project's research activities.

1.3.6 SIGN LANGUAGE (SL) INTERPRETING

At the time of analysis, sign language was systematically provided live for the press conferences organised by the federal government, but few published videos were translated into Vlaamse Gebarentaal (VGT) or Langue de Signe Français Belge (LSFB). What was noticeable was that voluntary organisations such as [Visual Box](#) and [Corona LSFB](#) took the initiative to provide videos with sign language themselves to fill this gap. As the provision of sign language takes time, the question arose when and for which materials sign language should be prioritised and which alternatives were most suitable for urgent information for which there is not enough time to immediately provide a translation in sign language. In addition, different types of sign language videos were identified: SL only, SL in combination with occasional screenshots from the original video, or SL synchronous with the voice-over of the video. The research team topicalised the question which types were preferred in what context and for which reasons.

1.3.7 PRESS CONFERENCES

At the time, the press conferences of the Belgian federal government related to COVID-19 communication, were held in Dutch and French, and provided with Flemish and French-Belgian sign language (VGT, LSFB). This way, the press conferences were accessible to D/deaf people who understand sign language. However, a large group of people with hearing impairment do not use and/or understand sign language but use subtitling instead. An option to make the press conferences accessible to this part of the target audience consists in providing live subtitles. However, at the time of the project these were not provided. The question arose to what extent this is a priority and this question was added to the list of issues to explore in the project research activities.

1.4 DISSEMINATION & CHANNELS

A first observation with regard to the channels used to disseminate COVID-19 related crisis communication by the federal government at the time of our analysis, is that there is a large focus on the provision of materials in digital form. The website info-coronavirus.be did contain folders and flyers that could be printed and distributed in printed form if desired. It was unclear, however, to what extent this was done and whether the materials actually circulated in non-digital form. The question arose how people experience the accessibility of non-digital materials and what additional needs there might be in this respect.

A second observation was that not all materials were provided in a format that is suitable for distribution through social media, a channel that seemed to gain in importance for crisis communication. The materials were at the time published mainly on government websites, which raised the question to what extent the materials are distributed further, possibly by intermediaries, and what the extent of the actual take-up is by the target groups.

A third observation concerned the structure of the website info-coronavirus.be which was the main channel used at the time for COVID-19 communication by the federal government. The landing page and homepage of info-coronavirus.be were at the time only provided in four languages (NL/FR/DE/EN), which could make it difficult for foreign-language speakers to find the page where the accessible and translated texts are provided. From the discussion, it also became clear that the website info-coronavirus.be mainly targets intermediaries, who can use the translations and accessible materials for further distribution within their own network, but was not always accessible for communication with citizens directly. This finding led to various questions: a first question was whether other channels may be more adequate for different target groups. A second question was to what extent intermediaries know of the availability of the materials on the website, know where to find them and find the website easy to use for their purposes. A third question was to what extent the effective outreach of the materials to end-users was realised or how this could be improved, since it seemed to depend to a large extent on the uptake of the materials by intermediaries (such as local governments, (semi-) professional organisations, NGO's, health workers, hospitals, volunteers).

1.5 PRODUCT DEVELOPMENT PHASE 1

Based on the overview of materials and the subsequent internal analysis and evaluation outlined above, a set of materials was selected (both urgent information on new measures as well as long term information on prevention and health) to be used as a basis for further experimentation and evaluation in the project (see the roundtable discussions reported on in PART 4, Chapters 3 and 4). This set of materials contained existing communication materials, as well as materials slightly adapted to highlight certain features for evaluation, based on the analysis above in Section 1.3.

The following materials were developed and/or adapted (see PART 4, Chapters 3 and 4 for a screenshot of the materials)

- **Audio versions on new measures:** Audio versions detailing new measures taken by the government were created in different forms for further evaluation. One version was created based on the current process by Atlas: an audio version of the written text of the measures in Easy Language. In addition, alternative versions were made: a version with a language style that is more suitable for spoken language (as opposed to simply voicing a written text) and for each of these versions, one was created with human voices and one with a synthetic voice. The audio versions were created in Dutch and French.
- **Infographic about the “Golden Rules”:** Atlas provided the original jpeg of the Golden Rules infographic – an infographic detailing the main safety rules to follow, including wearing a mask, keeping your distance and staying home when feeling ill (see PART 4, Section 3.5.2.2). Atlas subsequently added an alternative that included a voice-over in French and Dutch with the jpg image. The addition of the voice-over was decided on, in order to be able to test whether it increased its accessibility for people with low literacy skills and people with visual impairment and to test whether it facilitated easier distribution via social media (where the visual might be small).
- **Animation video about face masks:** A video that was representative of the videos distributed at the time was selected and intralingual subtitles, sign language, an audio description³⁰ (AD) and an audio introduction³¹ (AI) in Dutch and French were added, in order to test the usefulness and adequacy of the addition of these access services. In this case we developed two products that contained either an introduction or a description, but we did not create a product in which they were combined, given that the information that could be provided through the AI or AD was limited and there would have been a considerable overlap if we had combined them.
- **Infographic about vaccination:** The research team decided to test the current infographics in terms of layout, visuals, and clarity in the roundtable discussion and focus group discussions, but also wondered whether the PDF format was a suitable format for all audiences, in particular for people with visual impairment who use a screen reader. For this reason, an accessibility expert was approached to adapt the original PDF to accessibility standards. Specific changes were made in terms of layout, reading order, and alternative text.

³⁰ Audio description (also known as video description or visual description) is an additional narrative voice that provides information about relevant visual elements in a media work for people with visual impairment.

³¹ Audio introductions are brief audio messages at the beginning of an audiovisual text that provide necessary information for people with visual impairment to be able to follow the video. Audio introductions can be stand-alone or can be combined with audio description during the video.

- **Pictograms:** Given the wide variety of styles when it comes to pictograms, a set of varying pictograms in different styles was collected (taken from products already developed by NCCN/Atlas and from materials developed by advisory board organisations during the first months of the COVID-19 outbreak in Belgium) to contrast and evaluate preferences.
- **Animation video about quarantine:** Since one of the questions related to how spoken and written languages can be combined in a video, a video with Dutch text on screen was selected, which was subsequently provided with alternative audio in French and Albanese, to test whether the combination of text on screen and foreign language audio was suitable for foreign-language speakers.
- **Press conference summary in Flemish Sign Language:** A video presenting a summary of the press conferences was selected. This video was provided on a voluntary basis by Visual Box. This video was selected in order to test the form of such videos.
- **Press conference summary in LSFB:** Similarly, a video offering a summary of the press conferences in LSFB was selected, made by the external organisations L'Epée asbl and L'Escale asbl,

These developed/adapted materials were evaluated in the roundtable discussions with intermediaries. Examples and screenshots from these products can be consulted in the respective chapters (see PART 4, Chapters 3 and 4).

1.6 PRODUCT DEVELOPMENT PHASE 2

A second set of materials was developed, based on the first, preliminary research results gathered in the project by June 2021 (see Figure 10 and PART 4). The development of this second set of materials had several goals:

- a) further evaluation of remaining issues in focus group discussions (see PART 5);
- b) development of best practice examples, and
- c) implementation of quick wins to support ongoing crisis communication efforts by NCCN.

Based on progressive insights from the project thus far at that moment in time, four communicative materials were selected for which significant communicative barriers remained according to intermediary project results and that the team considered a priority to further develop as part of the product development phase of the project and that would also be part of testing in focus group discussions (see PART 5): the use of audio, the use of visuals and infographics, the development of accessible videos and issues related to web accessibility. Below, we discuss the main issues and lessons learned during the development of these products.

1.6.1 AUDIO

According to the first results of the project gathered by June 2021, audio versions in Easy Language and in different foreign languages had been positively evaluated for different target audiences (see PART 4, Chapters 3 and 4). Initial results seemed to support the idea that audio is an accessible form that can reach a range of target groups, and that can also be created in a relatively short time, for urgent messages, if synthetic voices are used. However, initial results also indicated a few elements for improvement. For example, audio alone in mp3 format was not always considered ideal and it was advised to consider combining it with a simple (static) visual that also provided additional context as to the theme and origin of the audio. While the use of synthetic voices was tested with and positively received by people with visual impairment, no

results were available yet as to its reception by other target groups such as foreign-language speakers and people with low literacy skills. Further testing was, therefore, required.

Based on these progressive insights, the research team developed a prototype for audio versions for urgent communication. Audio on new COVID-19 measures from June 2021 were created based on texts provided by NCCN, in Easy Language in both French and Dutch. A version with a natural voice was created, as well as one with a synthetic voice from Linguattec³². Next, additional foreign language versions with natural voices were provided, in the languages necessary for the focus group discussions planned subsequently in the project: Berber, Arabic, Spanish, Russian, Turkish, English and German. The audio was combined with a static image that provided listeners with a bit more context on the topic of the audio, the date of the measures, the author and a link to the official website for more information. The visual was custom-made for the project, in order to tailor the design as best as possible to the project results. The visuals were developed in collaboration with the external company DIFT, based on progressive insights regarding visuals and pictograms from the project (see Figure 16 for a screenshot). A more elaborate discussion of the choices made with regard to the visuals and the collaborative creation process adopted, can be found in Section 1.6.3 below about the video development, since the visuals developed for the audio files were based on the visuals developed for the video.

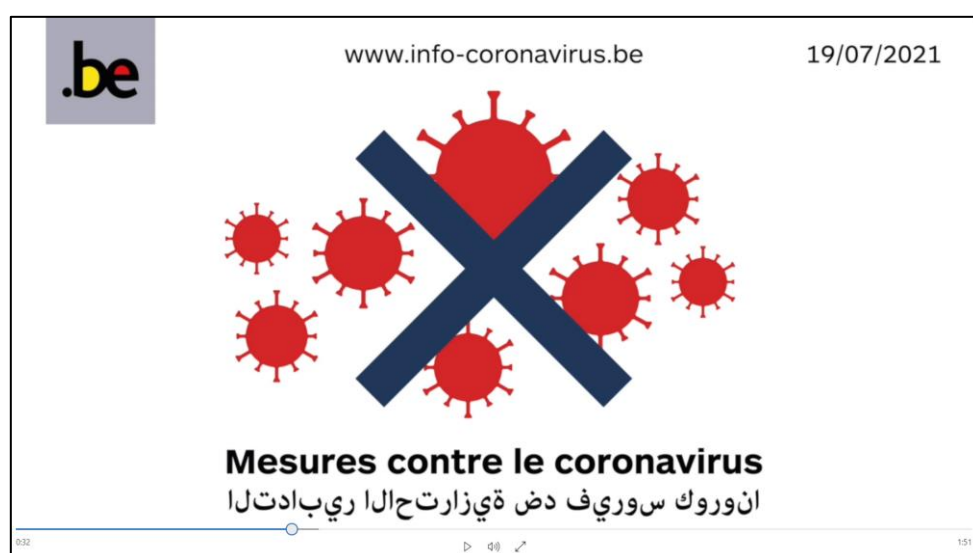


Figure 16 Screenshot of the developed audio version and visuals.

1.6.2 INFOGRAPHIC / VISUAL FOLDER

The first results of the project gathered by June 2021, indicated that attention also needs to be paid to offline, print communication. Federal COVID-19 Communication at the time of analysis focused largely on online and digital formats, which constitutes a barrier for several target groups. In addition, the roundtable discussions showed that the current products provided at the time seem mostly useful as a supporting document facilitating a live conversation between an intermediary and end-users. For the infographic tested in the roundtable discussions, intermediaries deemed it necessary to provide additional oral explanation and project results suggest that the form of these infographics at the time was not ideally suited to function as an

³² See <https://www.linguattec.de/>

independent communication material to directly distribute to users. The roundtable discussion in Flanders revealed several suggestions for improvement of the infographics.

An interesting gap, therefore, seemed to be the development of a standalone, printed flyer with visual imagery that can be used by target users, without any help from an intermediary. Currently such a product does not exist in the offer by Atlas/NCCN and it was therefore developed as a prototype.

The prototype was developed based on content provided by NCCN regarding the three basic safety rules for COVID-19 (*wash your hands, stay at home when sick, keep your distance*). The content was translated into short sentences in Easy Language in Dutch and French and a selection of other languages for testing with users in the focus group discussions. The research team created 13 versions: one version in French and Dutch combined and then 12 versions with either Dutch or French in combination with one of the following foreign languages: English, German, Arabic, Russian, Spanish and Turkish. In collaboration with the external company DIFT visuals were created for each of the sentences, in line with the images collaboratively developed for the video (see Section 1.6.3 below for more details and Figure 17 below for a screenshot of the folder).

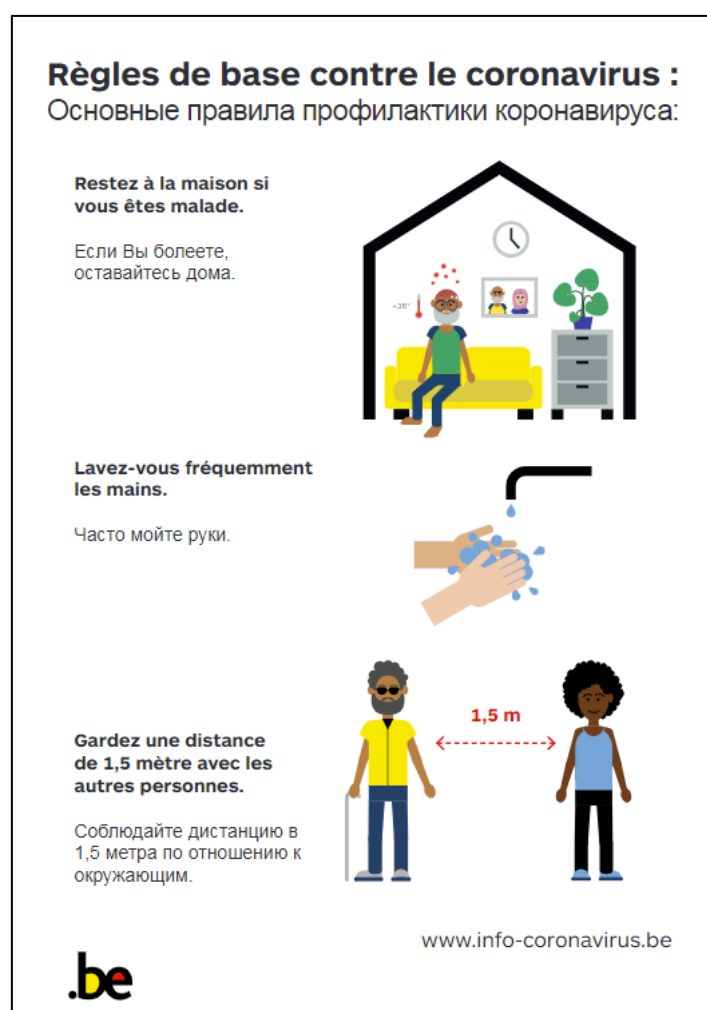


Figure 17 Screenshot of the folder.

1.6.3 VIDEO

Based on the project results by June 2021, short, animated videos seemed to be considered a solid and flexible way to communicate about long-term durable information on prevention and health, provided additional accessibility needs are considered. There were a lot of questions by the governmental stakeholders in the ICC project regarding how to develop accessible videos in a crisis context, so this was considered a crucial element to experiment with in practice. Based on the input from the project's research activities at that moment in time, a prototype of an accessible video was developed. Given the complexity of this endeavour and the many lessons learned, we provide a more detailed overview below of the different steps in the entire development process of the videos.

1.6.3.1 VIDEO PROTOTYPE CONCEPT & ACCESS PROVISIONS

The goal of this step in the product development phase was to develop a prototype of a fully accessible COVID-19 crisis communication video, with a specific focus on the target audiences in this project and taking into account as many of the progressive insights on communication barriers and access needs gathered at the time (June 2021).

Access solutions can be positioned on a scale ranging from tailor-made access solutions for specific purposes and target groups (e.g., a video in sign language for sign language users only) to products that are universally accessible and can be accessed by all. The experiment in this project phase, was to develop a video that was as universally accessible as possible for as many people as possible, taking on the challenge of trying to merge the different needs and requirements of the different target groups this project focuses on, namely people with low literacy skills and low socioeconomic status, foreign-language speakers and people with sensory impairment. This type of accessible videos had not been developed as part of the Belgian federal government's crisis communication strategy so far. In addition, based on advice gathered from the roundtable discussions and consultation of intermediaries (see PART 4), the research team wanted to experiment with ways in which users and experts from various backgrounds could be involved from the start in the creation of the video.

An additional challenge the research team wanted to explore was the practical feasibility of creating such videos in collaboration with users and experts, within a limited timeframe. The team had about one month to develop the accessible video, which is tight in any circumstance, but necessary when it comes to crisis communication. This process is therefore also an experiment in finding a balance between collaborating as extensively as possible following the Universal Design approach and delivering quickly. In a real life crisis situation, the deadlines will be even tighter, making this type of endeavour more suitable for slow-burning crises such as a pandemic, and other non-urgent crisis communication.

Based on the feedback at the time of development (June 2021), it was decided to create an animated video with voice-over on the theme of COVID-19 vaccination. This type of video would allow the research team to develop tailor-made visuals that respond to the different audience needs with good contrast and tempo, with respect for diversity to be attractive to a wide set of target groups and in several original audio languages. It was decided to make four short 2 to 5 minute videos. Project results indicated shorter videos are better in terms of attention span and are more easily shareable via social media.

The topic and content for the videos was supplied by the NCCN in the form of written scenarios for the voice-over and included four topics:

- how does the vaccine work,
- safety and side effect, who,
- how when and where can you be vaccinated, and
- why choose vaccination.

The Table below (Table 18) provides an overview of access services provided and motivation for the choices made on how to integrate them in the video prototype.

Easy Language	Easy Language experts at Atlas adapted the scenarios to meet Easy Language standards, considering the difficult exercise to match the need for nuance and accuracy in terms of the complex epidemiological and health-related content with the requirements of Easy Language. In this prototype a balance was sought between both.
Audio in 8 languages: French, Dutch, English, Spanish, German, Arabic, Berber and Russian	The Dutch and French audio were recorded by professional voice talents; the additional languages were provided by Atlas, in collaboration with public service interpreters in their home studios - the way audio has been recorded during the COVID-19 crisis by Atlas. Because of the limited budget, a set of 6 foreign languages had to be prioritised, so the research team selected 6 languages from the top 10 most spoken languages in Belgium, also taking into account the languages needed for the focus group discussions. During the recording, specific attention was paid to the speed of delivery to make sure that the audio had a slow enough pace.
Subtitles in French, Dutch, English, Spanish, German, Arabic, Turkish and Russian.	A Dutch subtitling template was created. Subsequently, the Dutch template was translated by Atlas' public service translators in all relevant languages. For Berber, no subtitles were provided because it is a spoken language and instead Turkish was added as a subtitle language.
Audio description in Dutch and French	The feedback during the roundtable discussions on the provision of AD was mixed, as not all current videos were suited for or needed a traditional AD approach where the visuals are described by an additional narrator in between dialogue/voice-over. Preferences also seemed to differ among people who still use their sight partially and those who only listen to the AD and voice-over. It was necessary, therefore, to make sure the AD had an added informational value complementary to the voice-over and that there were sufficient pauses in the audio to make room for relevant AD.
Sign language (VGT+LSFB)	Translation into sign language was outsourced to Visual Box for VGT and MU-SK for LSFB.
Universal Design	The research team tried taking into account the needs of all of the above access services while designing the video from the start. The experiment centred on finding a balance between sometimes conflicting needs and preferences, such as: - Easy Language of content and efficient translation into all languages, - nuanced health information & scientific facts, - speeds of delivery and of visuals, - reading speed of subtitles, - pauses for AD and for VGT/LSFB, - clear combination of visuals and sign language, - clear and unambiguous visuals, - clear contrast and colour use.
Integration into a single accessible video player	Most of the access services and audio options were combined into a single online and accessible video player through which users could choose and select the language/audio/access options adapted to their personal needs. The video player (THEO player) included: - choice of audio (including AD), - choice of subtitles and - video play speed. Only the sign language videos were accessible through a separate video link.
User instructions	On the info-coronavirus website where the videos were published, instructions were included to help people use the video player.

Table 18 Overview of the access services provided in the video and motivation for the choices made on how to integrate them.

The videos and website can be consulted here: <https://www.info-coronavirus.be/en/vaccination-video/> and Figure 18 shows a screenshot of from the website.

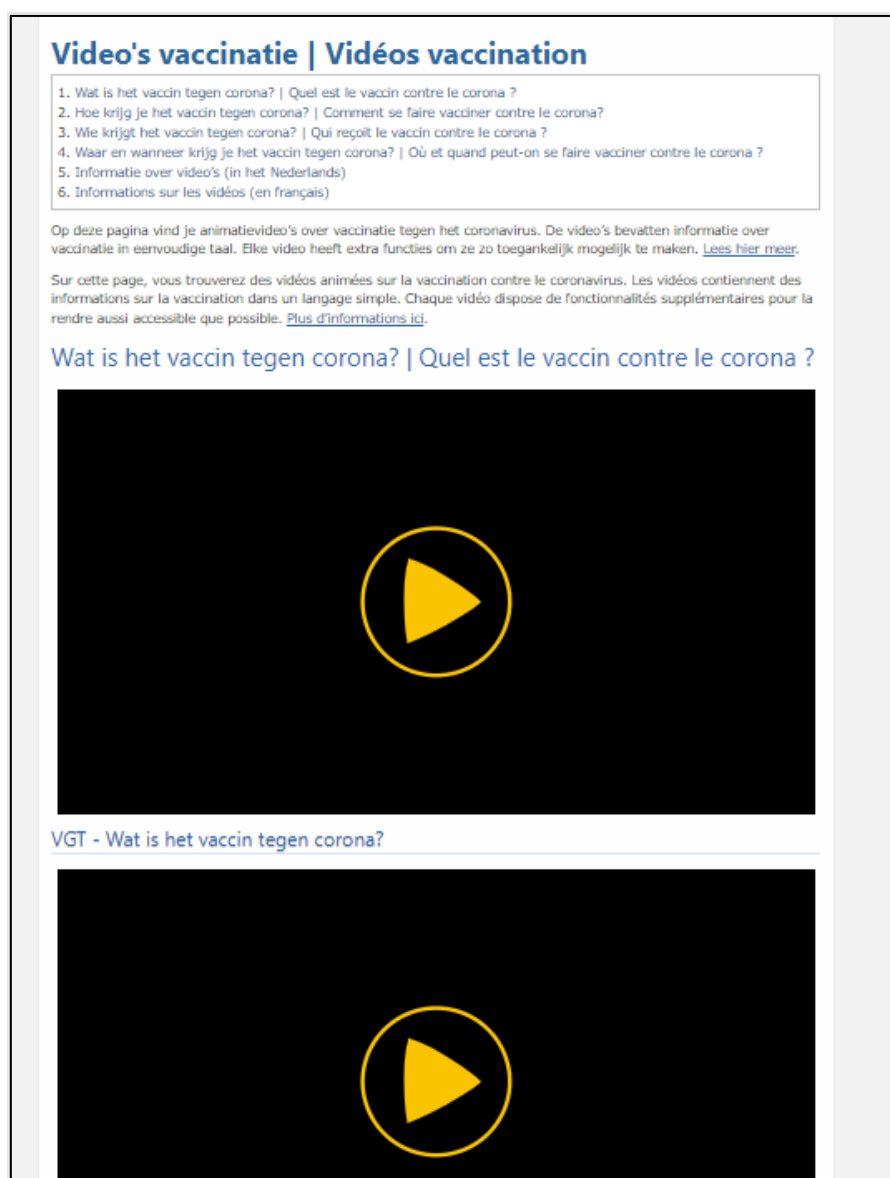


Figure 18 Screenshot of the webpage of www.info-coronavirus.be on which the videos can be consulted.

1.6.3.2 DESCRIPTION OF THE WORKFLOW AND PARTICIPATORY PROCESS

At every stage of the development process of the video (between mid May 2021 and end of June 2021), the research team tried to collaborate with several experts and experts-by-experience from the project's advisory board and immediately integrated their feedback into the relevant video development steps and related access provisions. This resulted in a complex iterative process of writing/creating and re-writing/re-creating, in an attempt to merge different viewpoints, preferences and needs. It is beyond the scope of the present report to provide a detailed account of each feedback loop. Instead, Table 19 below provides a general overview of the different consecutive steps and feedback moments organised and the experts involved in

each step. The main issues and how the research team tackled them based on the feedback, are discussed in more detail in Section 1.6.3.3.

Step	What	External feedback
Step 1	Content development	The topic and content for the videos was supplied by the NCCN and checked with the Taskforce Vaccination of the federal government. These initial scenarios were discussed with the product development team. Because of the difficult marriage of complex health information regarding vaccination with the needs of Easy Language, the team also consulted with researchers from the TransVaxx project of the Tropical Institute for Medicine in Antwerp (ITG) to evaluate whether their project results needed to be integrated into the scenarios in terms of content and formulation. The TransVaxx project team was at the time monitoring (on and offline) vaccination perception in Flanders, to provide input to health workers and health organisations in Flanders and they provided feedback on the NCCN scenarios based on their preliminary research results.
Step 2	Easy Language	Easy Language experts specialised in low literacy and foreign-language users from Atlas adapted the scenarios where necessary. The research team also sought feedback on the scenarios from selected experts from the advisory board regarding the access services (the Sign language interpreters for VGT and LSFB, three expert users who are hard of hearing, an AD expert and a visually impaired expert by experience).
Step 3	Translation and recording of audio in Dutch, French and 6 languages	The translated text was recorded as an audio file by social interpreters. The audio files formed the further basis for the design of the storyboards so that the images sufficiently support the audio message and give an indication of the pace and progress of the video.
Step 4	Development of story boards (visuals) for each scenario	The external company DIFT provided a storyboard with visuals for each scenario and feedback was gathered in a series of several consecutive steps from the internal project team, from the team at Atlas and from selected experts from the advisory board (see above).
Step 5	Development of animations	The storyboards were turned into animations that were timed on the audio of the voice-over. Again, several rounds of feedback were organised with the research team, the team at Atlas and selected experts from the advisory board (see above) regarding the accessibility and clarity of the images developed for the animation.
Step 6	Audio Description	AD scripts were written for the four videos and feedback was gathered from the internal project team and selected AD experts from the advisory board before recording the audio. This step also included adding additional pauses to the original animations to make room for the AD were necessary.
Step 7	Subtitling	Subtitles were provided in all chosen languages and were adapted to be fully synchronised in all language combinations (i.e., Dutch audio could be combined with all subtitling languages and all audio languages could be combined with any set of translated subtitles). Due to practical limitations, unexpected organisational issues and time constraints in the final phases of the project, the team was not able to gather feedback on the subtitles from advisory board members.
Step 8	sign language	VGT and LSFB videos were created, the form of the video's following the advice of the expert organisations to which the translation was outsourced.

Table 19 General overview of the different consecutive steps and feedback moments organised and the experts involved.

1.6.3.3 DISCUSSION & ADVISORY BOARD FEEDBACK

At every stage of the process and after every feedback loop, a series of decisions had to be taken. The main issues and challenges that emerged from this collaborative process are the following and will be discussed in the next sections: clarity of voice-over (Easy Language and voicing), adequate visuals and animations, language choices, Subtitling, need for audio description, sign language, user friendliness of the web player, timing and video length.

In addition, the research team offered the advisory board members the opportunity to provide feedback on the videos at the end of the development process once the videos were published on info-coronavirus.be. The way in which this feedback was gathered differed for the advisory board members from Flanders and those for Wallonia and Brussels, due to practical reasons. The advisory board organisations from Wallonia and Brussels were approached for feedback on the video during live, online meetings with the project team. For Flanders, the team created an online survey. The survey assessed the participants' degree of satisfaction with regard to the use of (sign) language, the animated images, the tempo of the images and audio, the intra- and interlingual subtitles, the multilingual audio options, the audio description and the interface. The survey was designed with the online tool Qualtrics and sent out via email. Out of the 48 advisory board members who were sent an invitation to fill out the survey over the course of two months (mid-July until mid-September 2021), 25 individuals completed and returned the survey.³³ This list of organisations is a mix of civil society organisations, user representative organisations and governmental institutions, all representing one or more of the videos' target groups. More specifically, in this survey, 14 of the organisations said to represent (Dutch-speaking) people with low literacy skills; 13 said to represent foreign-language speakers; 5 said to represent people with visual impairment; 7 said to represent people with hearing impairment and 8 said to represent the general population.

In total, the survey consisted of six different sets of questions based on the main issues that came up during the development process (see above). The first five sets each included similar questions concerning the respondents' evaluation of the above-mentioned aspects and features of the videos (i.e., content, (sign) language use, image use, tempo, subtitles, audio, audio description, interface), in relation to the intended target group. The respondents only filled out the question set(s) relating to the target group(s) they represent. These target groups include (1) people with low literacy skills, (2) foreign-language speakers, (3) people with visual impairment, (4) people with hearing impairment, as well as (5) the general population. The sixth question set was designed to gather some general feedback and opinions about the videos. All question sets comprised a combination of multiple-choice, open-ended and Likert-scale questions. A complete roll-out of the survey can be consulted in the Appendices to this report (see Appendix F).

In the sections below, we provide a discussion of each of the issues based on the development process and for each issue provide detailed feedback from the Qualtrics survey responses.

³³ Agentschap Binnenlands Bestuur, Vlaamse Overheid, AHOSA vzw, atlas, integratie & inburgering Antwerpen, Eleven Ways bv, vzw DiversLeuven, HoorCoach, Kortom vzw, Ligo Antwerpen, Ligo Brugge-Oostende-Westhoek, Ligo LiMiNo, Netwerk tegen Armoede, Onder Ons vzw, ORBIT vzw, POD Maatschappelijke Integratie, SAAMO Antwerpen stad vzw, stad Antwerpen, Stad Hasselt, Steunpunt tot bestrijding van armoede, bestaansonzekerheid en sociale uitsluiting, vzw Tolbo, vzw Vlaams Communicatie Assistentie Bureau voor Doven, Vocvo vzw, Vrienden der Blinden vzw, VRT, Wablieft, Wijkgezondheidscentra Botermarkt.

1.6.3.3.1 ISSUE 1: CLARITY OF LANGUAGE

One of the major challenges the product development team was faced with, was to find an adequate balance between the content of the official communication, necessary adaptations to meet Easy Language standards and the need to present complex health information in a nuanced, neutral and substantiated manner. The use of complex terminology and abstract concepts needs to be avoided, but at the same time, feedback from the TransVaxx project from ITG and preliminary research results from the stakeholder consultations and roundtable discussions, warned against oversimplification. This is an issue that resides on the border of content and formulation and includes, for example, the following observations that were taken into account as much as possible in the development of the video scenarios:

- It is important to provide enough nuance in the message.
- It is important to provide enough background information to substantiate and motivate measures and decisions and being transparent about the science behind decisions.
- It is important to avoid a top-down communication style, that at the time was sometimes experienced as authoritative.
- It is important to distinguish between general information and details and to offer a clear structure in the levels of information.

During the process, it became clear that the above needs and Easy Language are difficult to combine and reconcile. In order to provide Easy Language and avoid oversimplification, the scenarios were written at a B1 level.³⁴ Feedback from the selected advisory board members, however, still mentioned the use of sentence structures that were too complex, as well as abstract and complex terminology. Based on their feedback, final and minimal changes to terminology were introduced, concerning complex words such as, for example, “immunity” “pharmaceutical companies”, “infection” or “fertility” and the simplification of complex sentence structures.

What also became clear from the feedback, is that Easy Language needs may differ slightly from one target group to the next. For example, for foreign-language speakers or learners of a Belgian official language, international words that are similar among many languages are usually added and make the text easier (such as *fertility* (EN), *fertiliteit* (NL), *fertilité* (FR)), while for native Dutch speakers with low literacy such words are complex and easier Dutch synonyms are available (such as *vruchtbaarheid* (NL)). A balance needed to be sought across such differing needs.

To conclude this section, we give an overview of the feedback provided by the Flemish advisory board members in the Qualtrics survey, when asked about the **clarity of the language in the videos’ voice-over**. The overall response was positive, although some critiques were raised in the comments. The evaluation of the voice-over also differed per target group:

- For *people with low literacy skills*, the majority of the respondents considered the language ‘very clear’ (43%) or ‘clear’ (43%), while a minority considered it to be ‘neutral’ (14%), thus neither clear or unclear.
- For *foreign-language speakers*, over half of the respondents (62%) responded that the language was ‘clear’, 15% of the respondents felt it was ‘very clear’ and 23% felt it was ‘neutral’.

³⁴ <https://www.coe.int/en/web/common-european-framework-reference-languages>

- For *people with visual impairment*, 40% of the respondents indicated that the language was 'very clear' and 60% indicated that it was 'clear'.
- For *people with hearing impairment* (who can still partially hear), 86% of the respondents found the language of the voice-over 'clear' and only 14% felt it was 'neutral'.
- For the *general population*, exactly half of the respondents (50%) considered the language to be 'very clear'. The other half of the respondents considered it either 'clear' (25%) or 'neutral' (25%).

None of the respondents across the different question sets indicated that the language of the voice-over was 'unclear' (0%) or 'very unclear' (0%). This was also echoed in the open comments, in which several respondents praised the clarity and accessibility of the language, describing it as suitable for people with low literacy skills in Dutch. However, some of the respondents did express concerns regarding the **lexical choices** being unnecessarily abstract or difficult, where other simpler vocabulary options were possible. Examples of this were words such as 'producent' (*producer*), 'controle' (*control*), 'uitzondering' (*exception*) and 'officiële wetenschappelijke organisaties' (*official scientific organisations*). This concern was mostly voiced by the respondents representing people who have a low level of literacy and foreign-language speakers, but also by some respondents of the general population. Contrarily, respondents representing people with sensory impairment were less outspoken about the difficulty of the language, and one respondent even argued that the language level seemed too simple. Another remark that often emerged was that the **tone** of the voice-over felt 'patronizing' or 'school teacher-like'.

1.6.3.3.2 ISSUE 2: TEMPO OF VOICING

The voice talents and social interpreters who recorded the video voice-over in the relevant languages, were all instructed to adopt a slow pace and introduce sufficient pauses in between paragraphs. This was considered important for people with low-literacy or foreign-language speakers. In addition, it was important for the access services such as subtitling, sign language and AD, where additional stimuli are added to the video. An issue, however, that arose from this approach is that the length of the videos was longer than anticipated. Two minutes were considered an acceptable length. For use in social media, even shorter videos of about 1 minute seem to be advised at times. The videos in the project, however, were up to 5 minutes long. Nevertheless, the added duration of the video did not necessarily create additional cognitive efforts, since the additional length was mainly created by a slower speaking pace and additional pauses, making the videos longer, but potentially easier to follow and recall.

Indeed, regarding the **pace of the audio voice-over**, the survey showed that the majority of the organisations reported that the tempo was 'just right', as opposed to 'too fast' (0% across all question sets), 'quite fast', 'quite slow', or 'too slow'. Per the different target groups, the results were:

- For *people with low literacy skills*, 14% of those surveyed indicated that the tempo of the audio was 'quite fast' for the target group, while the majority of the respondents (79%) considered it to be 'just right' and only 7% considered it 'quite slow'.
- For *foreign-language speakers*, 15% of the respondents indicated it was 'quite fast', 69% indicated it was 'just right' and another 15% indicated it was 'quite slow'.
- For *people with visual impairment*, 20% of the respondents answered that the tempo was 'quite fast', 20% answered that it was 'just right' and 40% answered that it was 'quite slow' for the target group. Additionally, 20% indicated that 'this feature' (i.e. the tempo of the audio) 'is not relevant for the target group'.

- For people with hearing impairment (who can still partially hear), 14% of the respondents reported that the tempo was ‘quite fast’, 57% reported that it was ‘just right’ and 14% reported that it was ‘quite slow’. Furthermore, 14% indicated that ‘this feature’ (i.e. the tempo of the audio) ‘is not relevant for the target group’.
- For the general population, 37.5% answered that the audio’s tempo was ‘just right’, 25% answered that it was ‘quite slow’ and 37.5% answered that it was ‘too slow’.

The majority of the respondents remarked in the open comments that the pace of the audio was **rather slow** for a general audience yet **fitting** for end-users with a low level of literacy in Dutch as well as for people with visual impairment who use the audio description option. One respondent remarked that the pace would still be a bit too fast for foreign-language speakers with a low level of Dutch proficiency. Many respondents felt that the **pauses** between the sentences were too long and therefore created an **unnatural effect**. However, the comments varied depending on whether the respondents had either low-literate or literate and/or educated foreign-language speakers in mind when answering the questions. There were also respondents who thought the longer pauses would help people with low literacy skills in their understanding of the videos. As a suggestion, two respondents recommended a button to **adjust the speed** of the audio (in spite of the fact that this option was actually already available in the video interface).

1.6.3.3.3 ISSUE 3: ADEQUATE VISUALS AND ANIMATIONS

The company DIFT was asked to create storyboards based on the scenarios, already taking into account preliminary insights from the ongoing research activities (see PART 4) and input from the experts and research team during the several feedback loops. Below a summary of the main issues taken into account is presented.

VISUAL AMBIGUITY & LEVEL OF ABSTRACTION

Preliminary research results from roundtable discussions and stakeholder consultations indicated that visuals must be unambiguous and not misleading. Some people might interpret abstract visuals literally, which can create confusion. During the feedback process on the visuals and animations, several changes were made when visuals turned out to remain ambiguous. Specific attention was paid to the use of symbols (see illustrations in Figure 19 below).

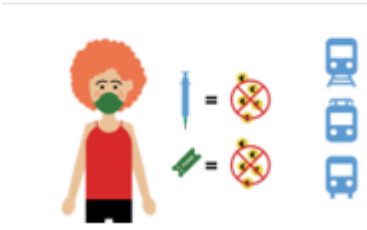
	In this visual, feedback indicated it was ambiguous as to who administered the vaccine, as if citizens would need to do this themselves. In the subsequent animation, a doctor was added
	In this animation, concerns were raised about the clarity of the symbols to express that the vaccine and public transport were free of charge. Concerns included the use of too many symbols in one frame.

Figure 19 The use of symbols

INTEGRATION OF VISUALS WITH AUDIO

Another issue discussed by the research team was the fact that the visuals should clearly support the audio and that cohesion and synchrony between both should be maintained. In addition, images should be functional and add to the message and not merely serve as an illustration. Some examples are shown in Figure 20 below to illustrate this issue.

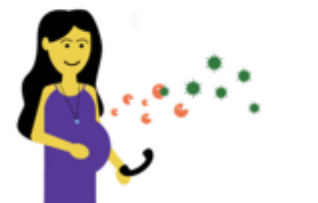
	With this visual, for example, the voice-over talks about the vaccine, while the doctor in the image holds a bottle, which could create confusion.
	With this image, the voice-over started with "every adult can get vaccinated" but the image only depicted a pregnant woman.

Figure 20 Integration of visuals with audio

VISUAL COMPLEXITY

Attention was paid to not make the visuals overly complex, so that they could be easily followed, and viewers could divide their attention equally across the different levels of input. For example, viewers should be given enough time to read the translated subtitles and watch the images or follow the sign language interpreter and then watch the visuals. Some images turned out to be too complex, as the following examples in Figure 21 show.

	The white figures moved across the screen and created visual clutter, distracting from the essential message.
	This visual combined a series of meaningful visualizations with abstract symbols. It was decided to make the different elements appear successively and to create additional pauses to offer viewers enough time to process everything.

Figure 21 Visual complexity

DIVERSITY

Preliminary project results indicated that videos should reflect the diversity of the population. During the video development process, it was challenging to reflect this diversity with only a few images. During the feedback loops it also became clear that there was initially too much focus on cultural diversity and gender (as depicted in the orange screenshot on the left side of Figure 22), but not enough in terms of other factors, such as age, profession, social status, ability etc. As a result, diversification was sought across all videos; as illustrated in the white screenshots in the middle and right-hand side of Figure 22).



Figure 22 Diversity in representation in the videos.

TEXT ON SCREEN

Previous video materials developed for COVID-19 crisis communication by the federal government sometimes contained text on screen. This was considered rather problematic for several reasons:

- it creates more visual complexity,
- it is not always clearly readable, especially when watching on a smaller screen,
- it requires enough time to be read,
- it needs to be translated for each language version of the video,
- it might clash with the addition of subtitles and sign language, and
- it requires to be voiced for audio description.

For this reason, text on screen was kept to a minimum and only added in those cases where it had an added value in all versions and languages of the video (see Figure 23 for examples).



Figure 23 Added value of text on screen.

TAKING ACCESS SERVICES INTO ACCOUNT

As already mentioned briefly in the previous paragraphs, the research team actively anticipated the addition of accessibility services such as sign language, subtitling and audio description during the video creation process. However, this sometimes resulted in conflicting needs and required the research team to find a subtle balance. For example:

- Additional pauses were added to accommodate audio description, but without creating too many uncomfortable silences for those audiences listening without AD.
- Visuals and text on screen were not placed at the bottom of the screen, for when audiences chose to activate subtitles.
- Visual complexity and a lot of text on screen was avoided, so that sign language users could easily combine watching the interpreter as well as the images.

To conclude this section, the results of the survey with the advisory board's feedback on the animation images is presented. Participants in the survey were asked to evaluate the suitability of the **animation images** for the target group. The respondents of the Qualtrics survey mostly reviewed them as suitable, with zero respondents indicating them to be 'very unsuitable'. Again, the results differed per target group:

- For *people with low literacy skills*, 29% of the participants answered that the images were 'very suitable' for their target group. 57% answered 'suitable' and 14% answered 'neutral', thus neither suitable or unsuitable.
- For *foreign-language speakers*, 15% of those surveyed reported that the images were 'very suitable', 69% reported that they were 'suitable' and 15% reported that they were 'neutral'.
- For *people with visual impairment* (who can still partially see), zero of the respondents answered that the images were 'very suitable'. 40% answered that the images were 'suitable' and another 40% answered that they were 'neutral'. A minority of the participants (20%) said that the images were 'unsuitable'.
- For *people with hearing impairment*, 14% of the organisations indicated that the images were 'very suitable' for their target group. 57% indicated that they were 'suitable' and 29% indicated that they were 'neutral'.
- For *the general population*, a small minority of the respondents answered that the images were 12.5% 'very suitable' while the majority (87.5%) answered that they were 'suitable'.

Although next to no negative answers were given regarding this question, a number of issues concerning the videos' animation images were identified in the open comments. A recurring concern raised by the respondents was that some of the images were **too abstract** or **with too little detail**, and did not support the audio and message content sufficiently. Symbols such as those for the vaccine, a COVID-19 test and the doctors were mentioned as insufficiently clear, and the visualisation of the vaccination process was reported to not sufficiently correspond to what was being said in the voice-over. In addition, some felt that too much visual information was pushed into one frame or even into the corner of the screen, which makes it hard to follow the message for people with low literacy skills, non-native speakers of Dutch, as well as for people with hearing impairment who have to be able to look at the sign language interpreter simultaneously. In respect to these issues, the respondents suggested to add **more and larger images** to the video, but to **spread** them out more evenly across the frames, i.e. to visualise the content more in a step-by-step approach. Lastly, the participants on the whole were quite satisfied with the **diverse representation** in the videos and complimented this aspect frequently.

In addition to the pace of the audio, the survey also inquired about the participants' views on the **pace of the animation images**, i.e. whether they thought the images moved at a pace suitable for the target group. The results per target group were:

- For *people with low literacy skills*, the majority of the respondents (86%) indicated that it was 'just right' for the target group, while a minority (14%) indicated that the tempo was 'quite slow'.
- For *foreign-language speakers*, most of those surveyed (77%) indicated that the images' tempo was 'just right', 15% indicated that it was 'quite slow' and a small minority (8%) indicated that it was 'too slow' for their target group.
- For *people with visual impairment* (who can still partially see), 20% of the respondents reported that the animation images moved 'quite fast', another 20% reported the tempo was 'just right' and 40% reported it was 'quite slow'. 20% indicated that 'this feature' (i.e. the tempo of the animation images) is 'not relevant for the target group'.
- For *people with hearing impairment*, a minority of the respondents (14%) responded that the tempo was 'quite fast', while the majority of the respondents responded that it was either 'just right' (43%) or 'quite slow' (43%).
- For *the general population*, exactly half of the respondents (50%) said that the tempo was 'just right', 37.5% of the respondents said it was 'quite slow' and only 12.5% said it was 'too slow'.

Not many remarks were made regarding the pace of the images. One respondent said the animation images moved quite slowly but in a positive sense, as this pace allows people with hearing impairment to easily focus on both the images and the subtitles. Another respondent commented that they noticed the animation images often preceded the audio, which they thought could cause the end-users to guess the meaning of the images in advance and could thus lead to differences in interpretation or possible confusion.

1.6.3.3.4 ISSUE 4: TRANSLATIONS AND LANGUAGE CHOICES

The translation of the scenario from Dutch into the different languages selected for the video prototype did not pose specific challenges. The only issue that arose was the fact that for some languages, such as Arabic, Spanish and Russian, the translated audio was considerably longer, which created issues with the synchronicity of images and audio on the one hand, and with the synchronicity of the subtitles with the audio. Adjustments had to be made to the animation speed, reading speed and text length in those languages to create adequate synchrony between audio, image and subtitling.

In this regard, the respondents who assessed the interlingual subtitles (target-language subtitles) were also asked to assess the overall quality and usefulness of the **audio options in multiple languages**:

- For *foreign-language speakers*, 31% of the participants indicated that the audio language options were 'very good', 38% indicated that they were 'good', 23% indicated that they were 'neutral' and 8% said that 'this feature' (i.e. the audio options in multiple languages) 'is not relevant for the target group'.
- For *the general population*, 25% of the respondents reported that they were 'very good', 62.5% reported that they were 'good' and 12.5% reported that they were 'neutral'.

The multilingual audio options were favourably received by the respondents, as they remarked that audio is **more accessible** to people with low literacy skills than interlingual subtitles. Again,

many respondents expressed that they were unaware of the audio options in multiple languages until they saw this question in the survey, and thus criticised this in the comments.

1.6.3.3.5 ISSUE 5: SUBTITLING

In order to cater for a wide audience - deaf and hard of hearing users, but also foreign-language speakers, people with lower literacy skills, etc. – the following subtitling rules were followed to maintain an acceptable readability:

- 42 characters per line.
- Two lines per subtitle.
- Reading speed of 12-14cps max.
- Regular pauses between subtitles.
- Easy Language (scenario was already in Easy Language).

To maintain such a reading speed, it was necessary to rewrite and reduce the subtitles in some cases; some languages, such as Spanish and Russian, required more extensive editing in this respect than others. As a result, subtitles were not always a verbatim representation of the voice-over (as is typical for subtitling).

The main challenge the research team experienced was a practical one, and concerned the need to match all subtitles in all languages with all audio versions in all languages. Given the different reading tempos in different languages and the different sentence orders in some languages, this required extensive editing of both the audio and the subtitles to synchronise all translations and access provisions.

The **intralingual** (i.e. target-language subtitles, e.g. Dutch audio complemented by Turkish subtitles) and **interlingual subtitles** (i.e. same-language subtitles, e.g. Dutch audio complemented by Dutch subtitles) were also assessed in the survey. The results per target group were:

- For *people with low literacy skills*, 21% of the respondents indicated that the intralingual subtitles were 'very good', 36% indicated that they were 'good' and 36% indicated that they were 'neutral'. 7% of the respondents reported that 'this feature' (i.e. the subtitles) 'is not relevant for the target group'.
- For *foreign-language speakers*, 8% of the respondents answered that the interlingual subtitles were 'very good', 31% answered that they were 'good', just over half (54%) answered that they were 'neutral' and 8% answered that they were 'bad'.
- For *people with hearing impairment*, 43% of the respondents indicated that the intralingual subtitles were 'very good' and 57% of the respondents indicated that they were 'good'.
- For *the general population*, the respondents were asked this question twice: once concerning the intralingual subtitles and once concerning the interlingual subtitles. Regarding the intralingual subtitles, 25% of the respondents reported that they were 'very good', 50% reported that they were 'good' and 25% indicated that they were 'neutral'. Regarding the interlingual subtitles, 25% of the respondents indicated that they were 'good', 37.5% indicated that they were 'neutral' and 37.5% indicated that 'this feature' (i.e. the interlingual subtitles) 'is not relevant for the general population'.
- This question was left out for the respondents representing *people with visual impairment*.

In general, the participants reacted **very positively** to the fact that subtitles were provided in these videos, especially in various languages. However, many regretted that the end-users have

to **turn them on themselves** and that this fact was not pointed out in the beginning in the videos. The majority of the respondents were unaware of the subtitling options themselves after having examined the videos and the interface on the info-coronavirus.be website. Regarding the quality of the subtitles, some respondents criticised that the subtitles did not correspond exactly to what was being said by the voice-over, but were instead **reduced**. In addition, one respondent indicated that the subtitles disappeared from the screen too quickly, and should instead be **displayed as long as possible**. Lastly, a few respondents expressed that subtitles are not always particularly useful for foreign-language speakers and people with low literacy skills, because reading in any language can be a **challenge** for them.

1.6.3.3.6 ISSUE 6: AUDIO DESCRIPTION (AD)

Based on the preliminary research results from the stakeholder consultation and the roundtable discussions and from the first feedback round on the scenarios from AD experts, it became clear that there were some concerns about the most adequate AD approach for this type of video. In a traditional approach, relevant visual elements are described in between the voice-over. However, traditional AD guidelines focus on film and television products with a narrative focus. Informational videos like the ones in this project might require a different approach.

The research team and experts-by-experience discussed a few experimental options. First, it was discussed to not provide AD, but only add an Audio Introduction: in the first development phase (see above) a video was made accessible for people with visual impairment by adding a brief introduction before the start of the video. This way, users were informed about important visual aspects, but could focus on the voice-over only during the video itself. Reactions, however, were mixed (see Section 1.5, this chapter). In addition, such an access service is more difficult to add to an online video player.

Next, it was discussed that adding AD in between the voice-over is difficult, since there is little time available and adding additional pauses might be uncomfortable for non-AD users. It was suggested by the AD experts consulted that for visually impaired audiences a completely new voice-over could be written that combines narration as well as description in an efficient way.

The research team concluded, however, that very little research, experience and guidelines were available for the above experimental options and decided to experiment with the traditional AD approach (i.e., added in between the voice-over), paying particular attention to not simply describing what can be seen on screen, but narrating it in such a way that the AD has an informational added value for the listeners and blends as best as possible with the existing voice-over.

The feedback received on the first, written AD scripts from the consulted experts-by-experience, mainly concerned ambiguous formulations, word choice and sentence length which were adapted accordingly before recording.

In order to assess the quality of the **audio description** of the videos, the participants who represent people with visual impairment were asked to rate the audio description on a 5-point Likert scale, ranging from 'very good' to 'very bad'. The survey results (see Figure 24) show that 20% rated it as 'very good' and 60% rated it as 'good', while 20% indicated that 'this feature is not relevant for the target group'. The open comments show that the respondents appreciated the audio description as an option and were satisfied with the quality of the audio description. However, two respondents suggested that audio description might be **redundant** for this type of

video, since people with visual impairment would be able to understand the videos without it as well. One respondent also mentioned a **mistake** in the Dutch AD, in which the reference to the website www.info-coronavirus.be was done without mentioning the dash in the middle.

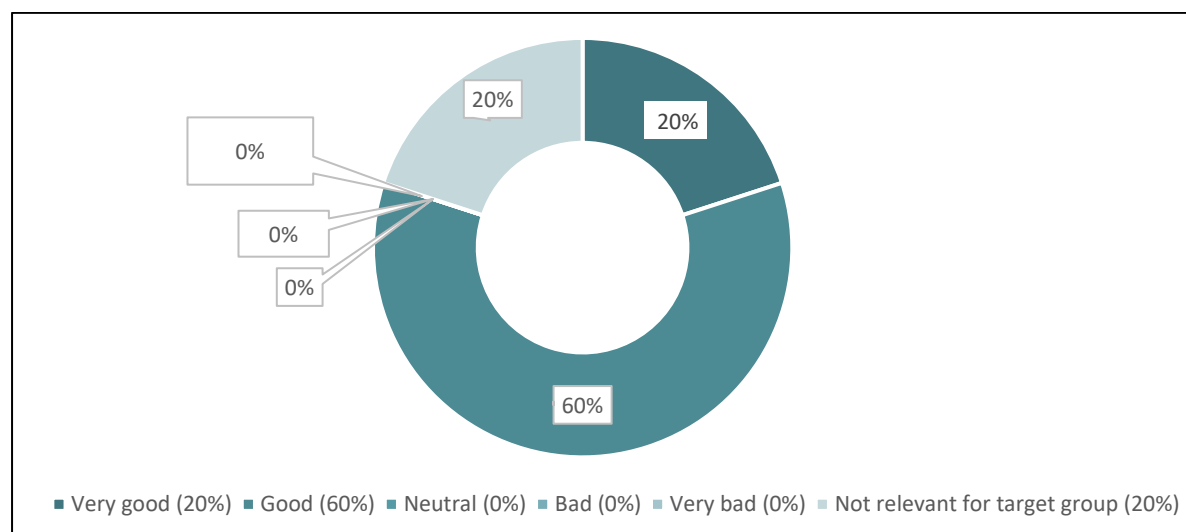


Figure 24 The overall quality of the audio description in the video, perceived by the participants representing people with visual impairment.

1.6.3.3.7 ISSUE 7: SIGN LANGUAGE

The creation of sign language videos was outsourced to professional organisations, Visual Box for VGT and MU-SK for LSFB. During the translation process, no considerable challenges were observed or reported. The video was designed as illustrated below in Figure 25.



Figure 25 Two screenshot of the animated video in sign language (left: VGT and right: LSFB).

The videos with VGT were assessed only by the participants representing people with hearing impairment. They were asked two different questions regarding the sign language. In the first one the respondents had to rate the clarity of the sign language. In reply to this question (see Figure 26), 14% said the VGT was ‘very clear’ and 29% said it was ‘clear’, while 14% indicated that ‘this feature’ (i.e. the sign language) ‘is not relevant for the target group’. The other 43% was not able to assess the VGT, as they reported they do not have a command of VGT. In the second question the respondents were asked to evaluate the sign language on the whole (see Figure 27), to which 28.6% replied the sign language was ‘very good’ and 28.6% replied it was ‘good’. Here too,

14.3% indicated that ‘this feature’ (i.e. the sign language) ‘is not relevant for the target group’, and 28.6% was unable to assess the sign language as they do not know VGT. There were no specific comments regarding the sign language videos.

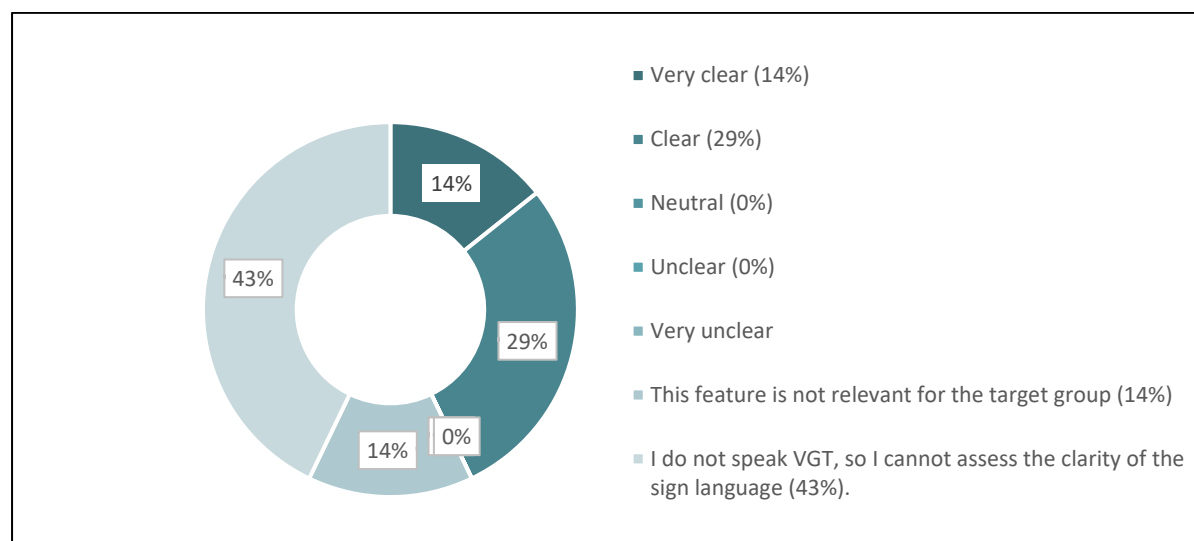


Figure 26 The clarity of the sign language (VGT) in the video, as perceived by the participants representing people with hearing impairment.

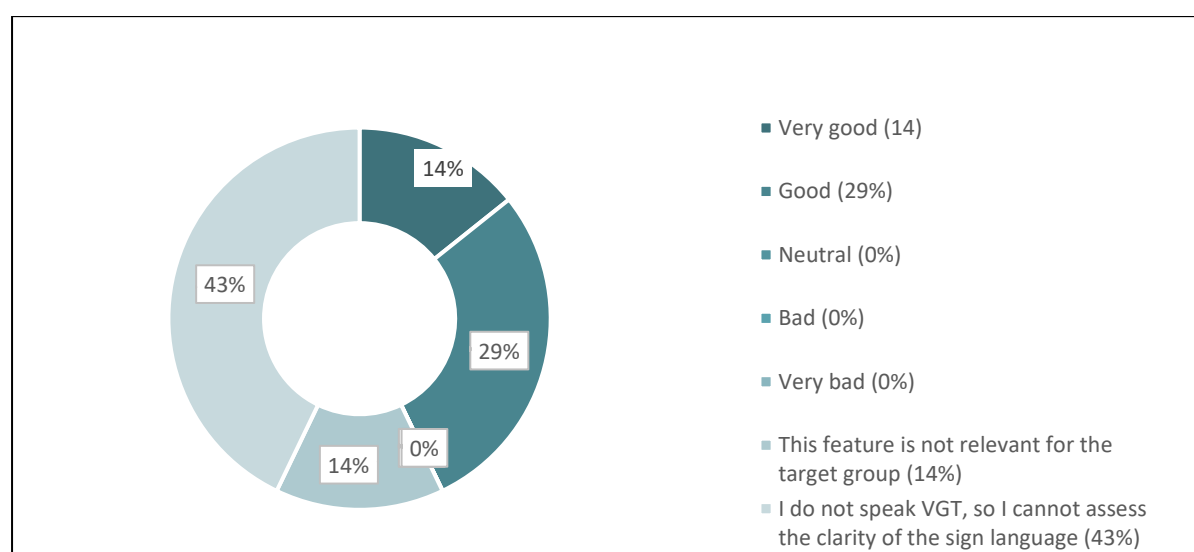


Figure 27 The overall quality of the videos with sign language, as perceived by the participants representing people with hearing impairment.

1.6.3.3.8 ISSUE 8: USER FRIENDLINESS OF THE WEB PLAYER INTERFACE

As indicated above, the project team experimented with the integration of all translations and access services into one accessible online player. This way, users were free to activate the languages and services to fit their personal needs. The web player used was the THEO player: <https://www.theoplayer.com/>

This player provides the options to select from an audio menu, select subtitles from a menu, adapt the narration speed, and change the subtitle settings, as illustrated in the screenshots below (see Figure 28).



Figure 28 Four screenshots of the animated video, showing the different access services in the menu.

Despite the benefits of the flexibility and personal choices of this player, one of the main concerns was how to support users in using the web player, as such players are not common yet. It was decided to explicitly indicate the available access services on the opening frame of the video (see Figure 29). The opening frame includes various symbols to indicate what type of access services and translations are available: personalised settings, subtitling, translations, different audio languages and AD.

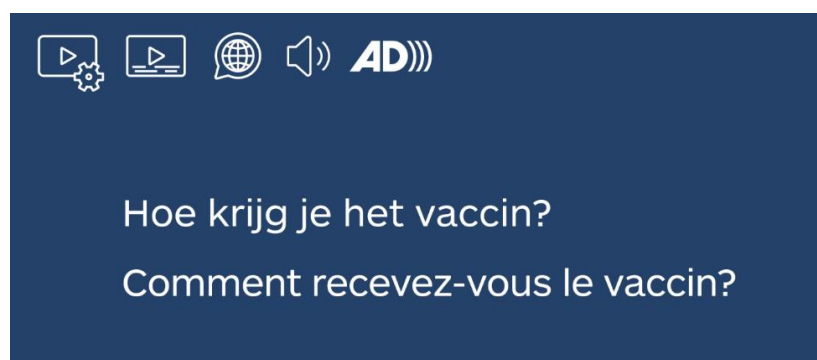


Figure 29 Screenshot of the opening frame of the animated video.

In addition, detailed instructions for each feature were provided on the info-coronavirus.be website (see Figure 30).

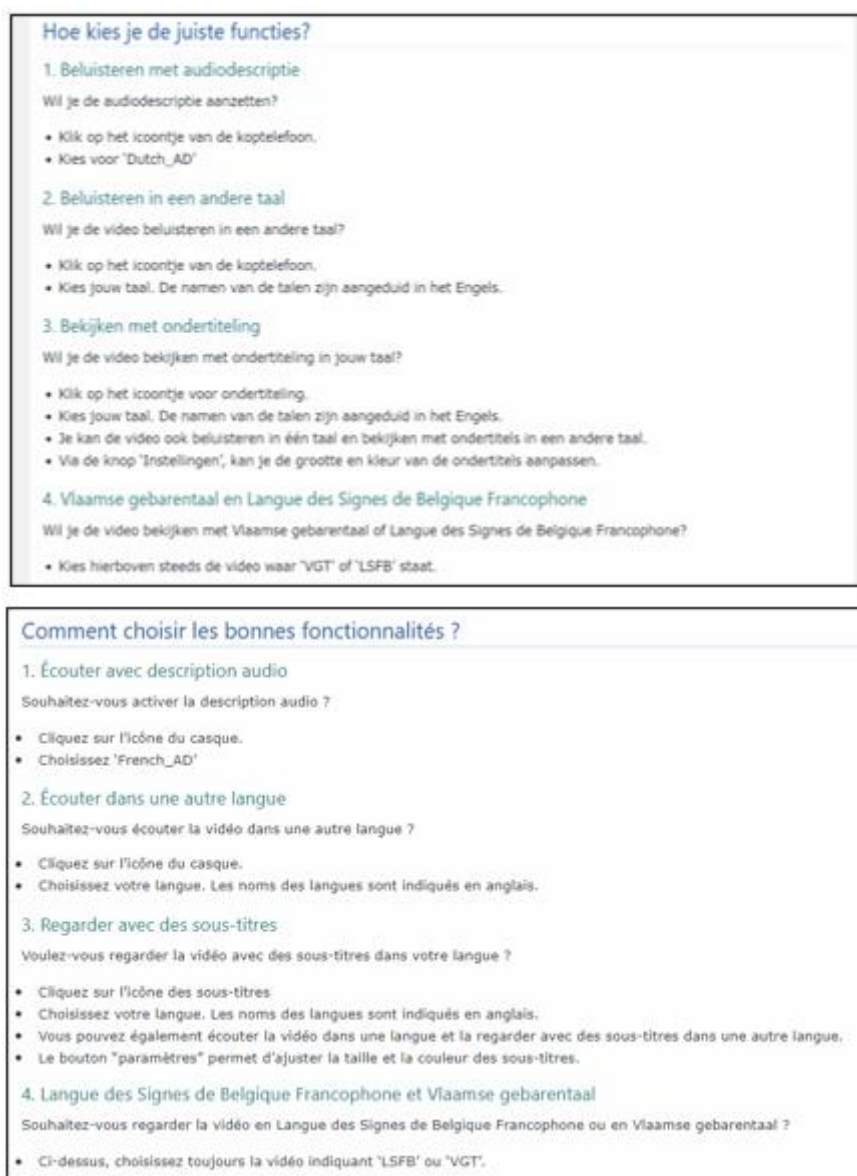


Figure 30 Screenshot of the video instructions on the info-coronavirus.be website (top in Dutch; bottom in French).

The last feature the participants were asked to evaluate was the **interface** of the videos, i.e. the progress bar in which subtitle and audio options can be selected. More specifically, the respondents were asked whether the interface was user-friendly and suitable for their target group or not. The overall response to this question was the least positive out of all the questions. For each target group, the results were:

- For *people with low literacy skills*, 7% of the respondents said the interface was 'very user-friendly', 36% said it was 'user-friendly', 36% said it was 'neutral' and 7% said it was 'not user-friendly'. 14% indicated that 'this feature' (i.e. the interface) 'is not relevant for the target group'.
- For *foreign-language speakers*, a small minority indicated that the interface was either 'very user-friendly' (8%) or 'user-friendly' (8%), while almost half of the respondents (46%) indicated that it was 'neutral' and another 31% indicated that it was 'not user-friendly'.

8% of the respondents reported that ‘this feature’ (i.e. the interface) ‘is not relevant for the target group’.

- For people with visual impairment, 20% of those surveyed said that the interface was ‘very user-friendly’, 20% said it was ‘user-friendly’ and 60% said it was ‘neutral’.
- For people with hearing impairment, 29% indicated that it was ‘very user-friendly’ and another 29% indicated it was ‘user-friendly’. 43% of the respondents indicated it was ‘neutral’.
- For the general population, the majority (62.5%) evaluated the interface as ‘user-friendly’, 12.5% evaluated it as ‘neutral’ and 25% evaluated it as ‘not user-friendly’.

Based on the open comments, it became clear that the respondents themselves experienced some **obstacles** when navigating the videos’ interface, which possibly explains some of the negative answers. The participants responded very positively to the variety of accessibility features they could choose from, such as the subtitle and audio options, but remarked that end-users (especially those with a low level of digital literacy) might find it **difficult** to turn on these options (without the help of others), which thus negates the positive effects of the accessibility features. Some respondents also mentioned that the choice to present the selection menu in **English** could prove to be an **obstacle** for some people. In addition, the respondents criticised that the explanation on how to adjust the video settings (which was written at the bottom of the page, below all the videos) was too long, too textual and too hard to find. According to the respondents, a good alternative could be to **visualise these instructions** in a short action video at the beginning of each video. Another suggestion was to make it possible to distribute the videos with the specific setting combinations already in place. Concerning our choice for the THEO player as a video player, one respondent who represents people with visual impairment commented that the THEO player is a good choice in regards to providing accessible videos for people with visual impairment. However, they added that the same **Aria label**³⁵ was used for every video, which makes it difficult for people who use screen readers to distinguish between the different videos.

Lastly, the respondents were asked to answer two general questions about the videos’ concept, without specific regard to the target groups they represent. In reply to the first question, which asked whether they considered the **integration of different accessibility features** (audio description, audio language options and subtitle options) in one video and one web player valuable or not, 44% of the 25 respondents indicated this was ‘very valuable’, another 44% indicated it was ‘valuable’ and 12% indicated it was ‘neutral’ (see Figure 31). In the second general question the respondents were asked **whether or not they were planning to use the videos and/or would recommend the videos to others to use them**. In response to this question, the majority of the respondents (64%) indicated that they were ‘planning on using the videos and recommending them to others’, 4% indicated that they ‘already used the videos’, 28% indicated that they were ‘not planning on using them, but would recommend them to others’ and only one person (4%) indicated that they were ‘not planning on using them or recommending them to others’ (see Figure 32). When asked through **which channels** they were planning on sharing the videos, 29% said they would share them on their organisations’ website, 18% said they would share them on Facebook, 6% said they would share them on Twitter, and 47% said they would

³⁵ An Aria label is an HTML attribute designed to help assistive technology such as screen readers attach a label to an otherwise anonymous HTML element.

share the videos through ‘other’ channels, such as their organisation’s newsletters, during their classes, etc.

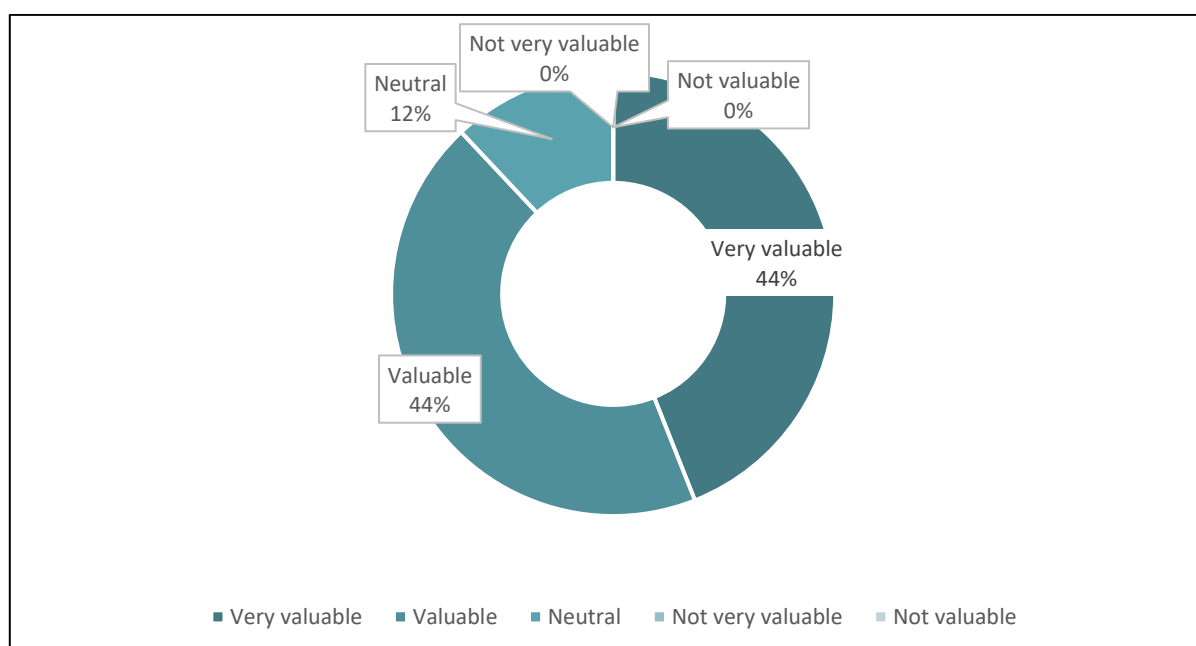


Figure 31 Assessment of the integration of different accessibility features in one video.

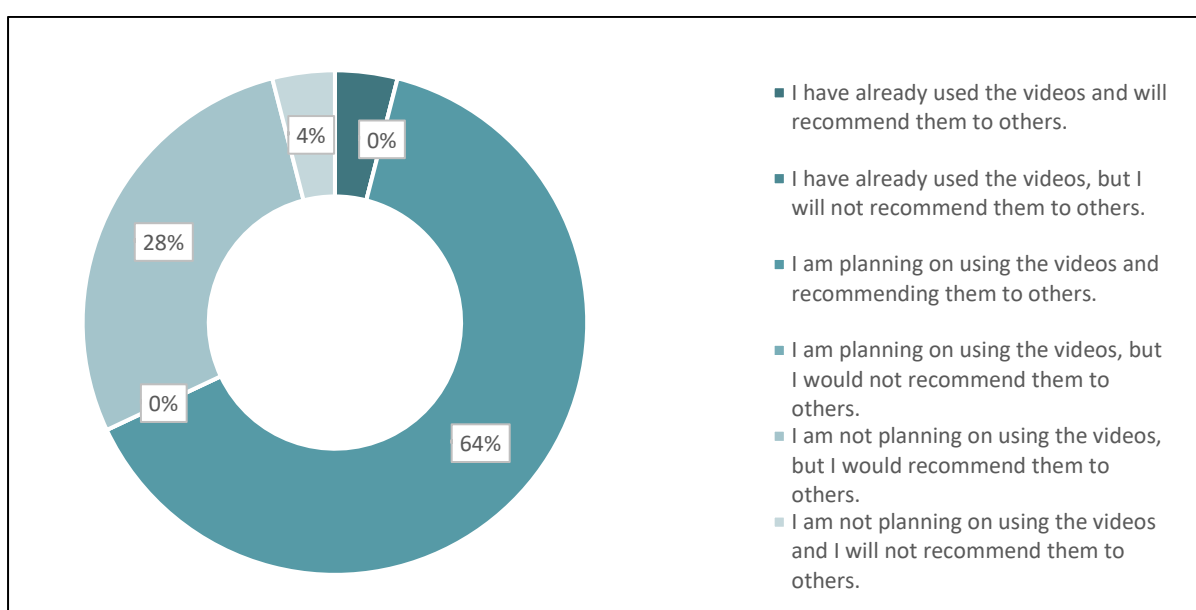


Figure 32 Participants' use of the videos.

In general, the qualitative survey results show a mainly positive appraisal of the videos, with answers indicating the second to highest degree of satisfaction most of the time and providing only very few negative responses. However, in the open comment sections, the participants did express some criticism and also proposed specific points of improvement. The interface received most criticism out of all the video features that the participants were asked about. This was also reflected in the qualitative survey results of this question, which generated the most negative answers out of all the different questions. The large variety of accessibility features people could

choose from, such as the subtitle and audio options, was received very well by the participants, yet they remarked that it was not clear that these options were available and that the interface was difficult to navigate. Apart from the interface, the participants' comments and recommendations mainly related to the suitability of the animation images, the clarity of the language and the tempo of the audio and images. Despite these critiques, the findings reveal that the videos are considered to be useful by the organisations. It should be noted, however, that the sample size of the survey was quite small (25 participants), which makes these findings less generalisable. Despite this limitation, the focus group discussions with vulnerable end-users (see PART 5) in which these videos were discussed with the participants partly makes up for this limitation.

1.7 WEB AUDIT

From the initial project results and internal team discussions, it became clear that the website info-coronavirus.be did not meet Web Accessibility guidelines yet, as per Belgian federal government regulation. For this reason, it was decided to hire the external company 11ways to conduct a web audit and support the NCCN development team in getting the website to meet web access requirements as quickly as possible.

The initial WCAG audit report aimed at a WCAG 2.1 level AA and found a series of issues. The websites specifically contained obstacles for keyboard users, visually impaired and blind users. Most issues could be solved with minor intervention, other issues, however, required more extensive editing (such as, for example, adding subtitles and alt text to videos and images). In total, the company checked a sample of the website and found 42 issues of which 6 recommendations and 36 violations of the WCAG recommendations; Eight issues were considered a high priority, which included: the correct marking of icons, the improvement of alternative text, giving interactive elements a focus outline, the use of unique text links, making links usable with a keyboard, adding transcriptions of subtitles to video, providing alternatives for video, and adding sound. Most issues had a low to medium impact.

Based on a list of recommendations, the website was adapted with the support of 11ways on all necessary fronts and an accessibility statement will be added to the website.

1.8 SUMMARY OF THE EXPERIMENTAL PRODUCT DEVELOPMENT PHASE

Based on the elements reported on in this chapter we summarise a set of issues to be taken on board when developing a more inclusive crisis communication strategy for the target groups addressed in this project.

1.8.1 OVERVIEW OF ACCESS FEATURES

Greater accessibility of crisis information messages can be realised by:

- providing information in a **variety of forms**, offering users choices: written text, spoken text/audio, (animated) video, infographics and (visual) flyers.
- translating such texts and their different forms in a **wide variety of relevant languages**.

- integrating additional **accessibility features** to make the message content more accessible, such as Easy Language, intra- and interlingual subtitling, sign language, audio description and audio introduction.
- considering the **accessibility of the medium** through which the messages are distributed, such as web accessibility, accessible web players, document accessibility, alternative text, etc.

1.8.2 GENERAL POINTS FOR CONSIDERATION

CONTENT COMPLEXITY

Accessibility arguably starts with the clarity of the source message. When the content of the message is complex – as can be the case for crisis health and scientific information – a balance needs to be sought between detail and nuance in the content and the need for lexical and structural clarity. In addition, such complexity can also be compensated for by carefully considering non-verbal aspects of the text, such as the addition of visuals, lay-out, pace of the voice in audio, etc.

UNIVERSAL DESIGN³⁶

Current access provisions can be positioned on a scale moving from tailor-made solutions for specific target groups (i.e. a separate video with audio description for people with visual impairment) to one communication product that can be accessed by all from the start. While the latter provides information in the most inclusive way, practice has also shown that the creation of universally accessible products requires finding a compromise between varying and sometimes even contradicting needs. The choice for the type of approach can be considered within the specific local context and depending on the communicative goal of a specific message.

THE RELEVANCE OF THE CHANNEL

The choice of the form of the message and its accessibility features are also influenced by the channel through which it will be distributed and this is best taken into account from the start. For example, distribution via text message services such as WhatsApp implies a small screen and requires to take into account that detailed visuals might not be clearly visible. Or colour flyers distributed digitally might be printed in black and white (e.g. in a doctor's office) and must remain readably and visible in such a context.

Equal attention should be paid to the creation of digital as well as non-digital materials.

THE INTENDED RECEIVER

The project results have indicated that several types of products are actively used by intermediaries and are not always directed at citizens for them to use independently. The choice of form, access features and channel may therefore also vary depending on who the intended receiver is.

TIMELINE

³⁶ In a Universal Design approach, a communicative product is designed in such a way that as many barriers as possible are eliminated, so that it is accessible to multiple target groups without the need for additional adaptations.

In a health crisis context like the COVID-19 pandemic, some message are urgent and the choice of form and accessibility is influenced by it. A choice must be made that provides the necessary information to all in citizens simultaneously.

PARTICIPATION

The choices described above in terms of accessibility can be improved by making them collaboratively, involving experts, experts-by-experience and end-users from the start in the development of products.

SPECIFIC POINTS FOR CONSIDERATION PER TYPE

Below, a set of more detailed points of consideration that flowed from the product development phase per type of form or access service is summarised:

PDF

- Consider the accessibility of PDFs at the time of creation and provide a written text alternative when necessary.
- When creating PDFs, consider whether it is to be used as a digital document or meant for printing and take into account who will be printing it and how.

Audio

- Take into account the pace of speaking and make sure it is not too fast for the intended audience.
- Consider the tone and style of the voice, to be suited to the type of message.
- Take into account that audio alone is not ideal for all contexts and channels. Consider combining it with an image.
- Make sure to provide a written text alternative for audio.

Video

- Video seems to be a suitable form for (non-urgent) crisis communication as it can combine different forms (visual, audio and text), provided all access needs are taken into account.
- Videos are best kept short (between 1 and 5 minutes long)

Visuals

The development of relevant and accessible visuals in a universal approach is challenging. The following points can be considered:

- the pace of visuals in animations.
- the consistency of visuals across products (re-use the same symbols for the same information)
- the level of precision and ambiguity of visuals.
- the diversity of visuals (culturally, in terms of social status, in terms of gender, ability, etc.)
- the complexity of visuals (not too much at the same time in the frame)
- the consistency of visuals with other textual elements (e.g. audio) in terms of both content and timing.
- take into account colour contrast, readability and visibility of images.
- pre-testing can be valuable in this case.

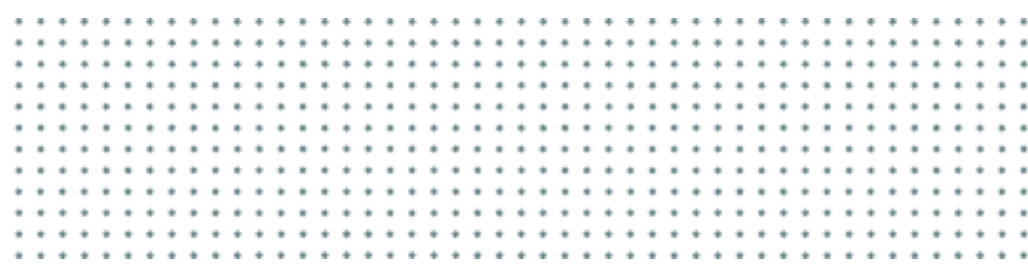
Audio Description & Audio Introduction

- Consider whether audio description is necessary, or whether the material is already accessible for people with visual impairment through the voice-over that provides all the necessary information, with the visuals playing a supporting, illustrative function. If so, communicate this to the target group.

- Take access for people with visual impairment into account from the start and evaluate whether a video or visual product can be created in such a way that adding audio description afterwards is not required (e.g. when developing the voice-over text).

Access services

When creating a product, take into account what access services will (need to) be added and take into account the requirements in the design of your product (in terms of lexical choices, pace of the voice, additional pauses, visual design for combination with subtitling, sign language or audio description.)



PART 4

QUALITATIVE EVIDENCE: INTERMEDIARIES

1 INPUT FROM KEY STAKEHOLDERS IN FLANDERS: SURVEY AND SYNTHESIS OF EXISTING REPORTS AND RECOMMENDATIONS BY INTERMEDIARIES

1.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Flanders by **UAntwerpen** to gather **already existing knowledge, expertise and evidence** on inclusive COVID-19 crisis communication. In this part of the study, the project's **advisory board** which brings together a diverse set of organisations based in **Flanders** was consulted for input and expertise. Concretely, the consultation of the advisory board entailed participation in a **survey** and the provision of **existing reports** or **documentation** of COVID-19 crisis communication (including, amongst others, internal evaluations, guidelines and best practices) that advisory board organisations have carried out and devised over the last twelve months during the COVID-19 pandemic outbreak in Belgium.

In what follows, the results of a **survey** are summarised and presented alongside a **synthesis** of the content of the existing reports authored by advisory board organisations. Building on this qualitative evidence, this report identifies **persistent barriers** for the project's target groups related to the form and channels of inclusive crisis communication in the specific context of the COVID-19 pandemic in Flanders.

In **Section 1.2**, the methodological background of the survey and synthesis of existing reports is specified. This is followed by an overview of the survey results in **Section 1.3**, with a focus on the regional and linguistic functioning of the advisory board organisations which participated in the survey, the specific target audiences they cater to and their use, degree of satisfaction and evaluation of existing COVID-19 crisis communication materials provided by the federal government. **Section 1.4** presents a synthesising presentation and discussion of the content of the advisory boards' reports which covers the specific form and channel of communication materials best suited for specific types of end-user and target groups in Flanders. This report finished with **Section 1.5** in which a summary of the gathered practice-based evidence for Flanders is presented.

This chapter is based on the content of the following project deliverable report:

Vandenbroucke, M., Geerinck, B., Reviers, N., Vercauteren, G. & Jankowska, A. *Internal report on practice-based evidence in Flanders. Report on Work Package 2*. 30 April 2021.

Bonnie Geerinck and Mieke Vandenbroucke are first authors of this report.

1.2 METHODOLOGY

In order to obtain qualitative evidence concerning the accessibility barriers that ethno-cultural, socioeconomic, linguistic minorities and people with sensory impairment have faced with regard to COVID-19-related government communication in the past twelve months, an **advisory board** was assembled at the start of the project. The stakeholders in the advisory board were selected on the basis of the following criteria: their operational area (i.e. based in Flanders), their line of work (i.e. the organisation's mission and objectives) and their target group (i.e. people with

sensory impairment; people with low literacy skills; people with a migration background; and/or foreign-language speakers). This resulted in a selection of 73 civil society organisations, user representative organisations, governmental organisations and experts-by-experience, which were contacted via email with an extensive explanation of the research project and the question whether or not they would consider participating in the project by joining the advisory board. Out of the 73 organisations that were contacted, **49 organisations** replied positively, 17 organisations gave a negative or tentative response, and 7 organisations did not reply to the email.

1.2.1 COLLECTION OF DOCUMENTS AND REPORTS

The 49 stakeholders who were willing to join the advisory board, were asked if they disposed of or were aware of any practice-based evidence in the form of internal evaluations, best practices, policy recommendations or other reports concerning the accessibility to COVID-19 communication. Out of these 49 stakeholders, the following 23 provided us with one or more documents on the topic, either executed by their own organisations or by other organisations they had collaborated with:

- Atlas, integratie & inburgering
- Centrum Algemeen Welzijnswerk (CAW)
- City of Antwerpen
- City of Genk
- City of Leuven
- Doof Vlaanderen
- Inter Expertisecentrum toegankelijkheid
- Kortom vzw
- Ligo Antwerpen
- POD Maatschappelijke Integratie (POD MI), dienst ervaringsdeskunigen
- Regeringscommissariaat Corona, Task Force Vaccinatie Communicatie
- SAAMO Antwerpen
- SAAMO Gent
- Steunpunt Mens en Samenleving (SAM vzw)
- Steunpunt tot bestrijding van armoede, bestaansonzekerheid en sociale uitsluiting (hereafter: Steunpunt)
- TolBo vzw
- Unia
- Vereniging voor Blinden en Slechtzienden, Licht en Liefde (VeBeS)
- Vlaams Instituut Gezond Leven
- Vlaamse Gemeenschapscommissie
- VRT
- Wablief
- De Zuidpoort vzw

After receiving and reading all documents, a **selection** of the most relevant reports was made based on whether the reports mentioned communication and/or dissemination of COVID-19 information, and a document analysis and thematic analysis was carried out in order to synthesise the findings and recommendations with regard to the accessibility of the form of governmental COVID-19 communication products and the channels through which they are distributed. The results of this analysis can be found in Section 1.4.

1.2.2 SURVEY

In addition to this thematic analysis of the reports obtained from the advisory board, a **survey** was designed to ascertain how the (accessibility of) the government's COVID-19 communication strategy was received by the stakeholders in the advisory board. More specifically, the survey assessed:

- whether the respondents were **aware** of accessible COVID-19 communication products developed and distributed by the government;
- whether their organisations had **used** these products (with or without adaptations);
- how **satisfied** the respondents were with the accessibility of the form of the communication products and the channels through which the government distributed them;
- which **barriers** to access their target group(s) experienced with regard to the government's COVID-19 communication; and
- whether their organisations had attempted to **bridge** these barriers by developing complementary communication products and/or writing evaluations or policy recommendations.

A complete roll-out of the survey can be consulted in the Appendices to this report (see Appendix G).

The survey was sent to all the advisory board members, who had agreed to take part in the survey in advance. In total, **34 organisations** participated in the survey.

1.2.3 ETHICAL CLEARANCE

Prior to sending out the survey to the stakeholders in the advisory board, **ethical clearance** was sought from the Ethics Committee for the Social Sciences and Humanities (EASHW) at the University of Antwerp. The activities for Work Package 2 received a final positive clearance by EASHW on the **2nd of April 2021** under reference SHW_21_77. In accordance with the ethics protocol outlined in the EASHW application for these activities, participation in the survey proceeded with **informed consent**.

1.3 SURVEY RESULTS

1.3.1 REGIONAL ACTIVITY, LANGUAGES AND TARGET AUDIENCES OF THE SURVEY PARTICIPANTS

In total, **34 organisations** participated in the survey in the course of **April 2021**. These included civil society organisations, user representative organisations and governmental organisations at federal, regional and municipal levels. Despite the fact that these organisations are based in **Flanders** (with one exception which is based and active only in Brussels), they are not all exclusively active in Flanders, as illustrated in Figure 33. Of the 34 organisations that responded to the survey, 21 are only active in Flanders, 9 also provide support and services in Brussels and 3 organisations also provide support and services in Brussels and Wallonia, as shown in Figure 34.

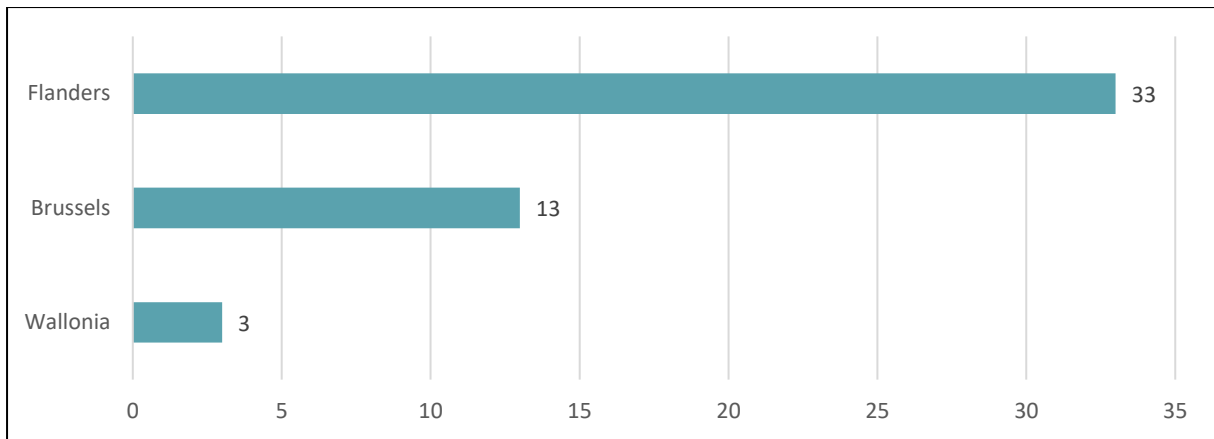


Figure 33 Distinct regional activity of the survey participants.

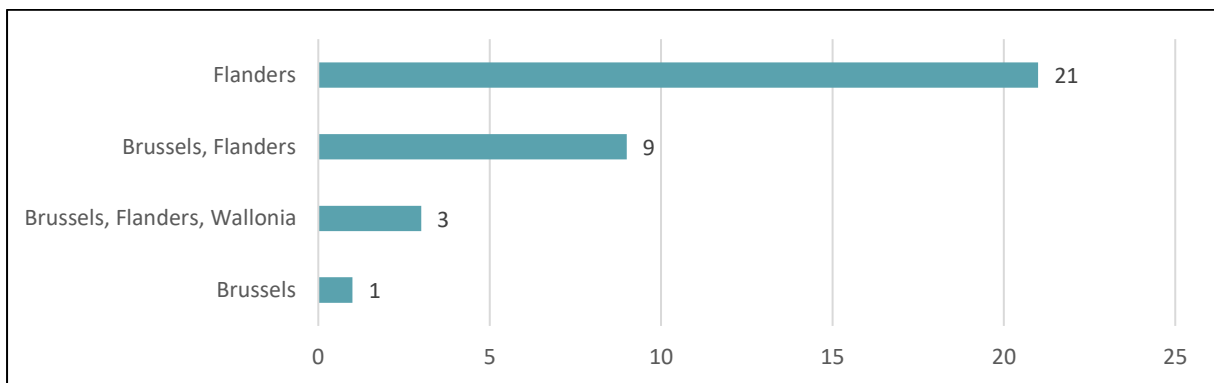


Figure 34 Combined regional activity of the survey participants.

Figure 35 outlines the **languages** in which the organisations offer support and services to their target audiences. A large portion of the organisations indicated that they communicate and/or provide assistance/services to their target groups in languages other than Dutch, as shown in Figure 36. 19 organisations indicated to use only Dutch in their communication while 15 organisations indicated to use Dutch in combination with (an)other language(s). Four organisations also added that they use Flemish Sign Language (VGT) in addition to Dutch in their communication.

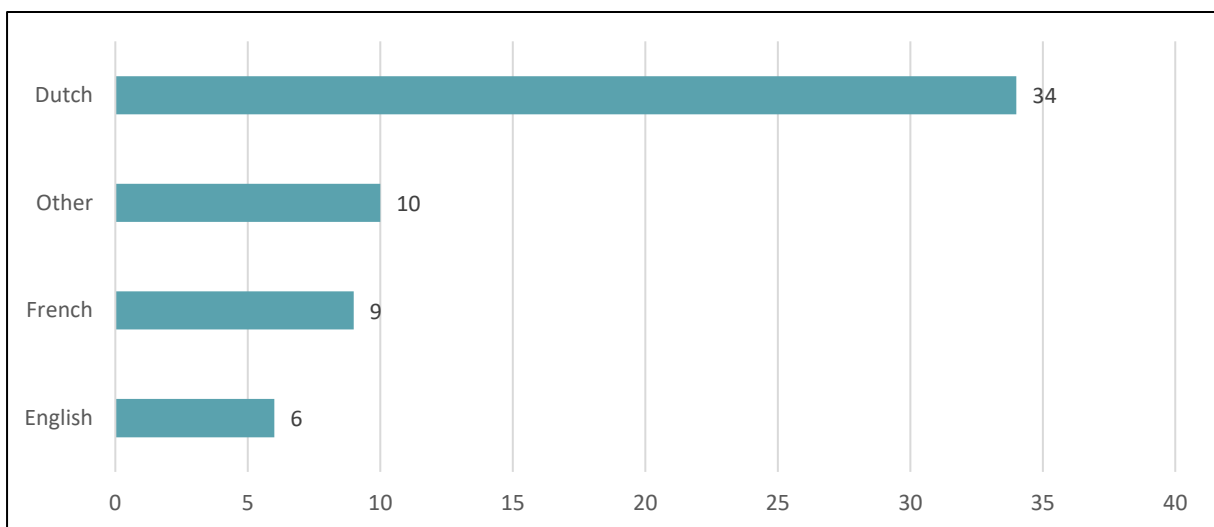


Figure 35 Distinct language services by the survey participants.

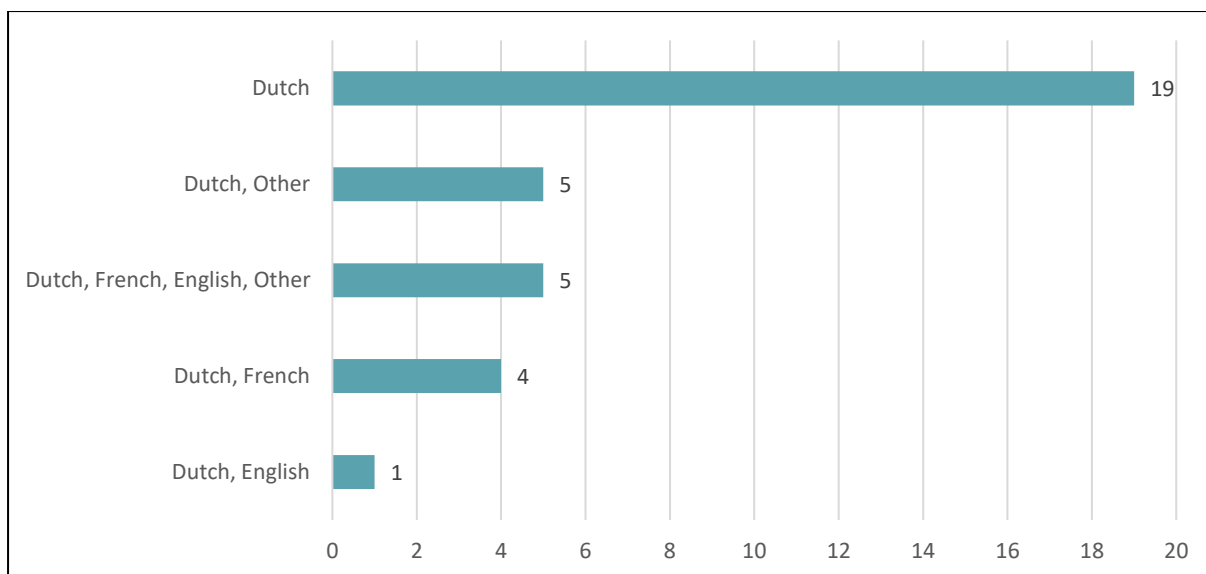


Figure 36 Combined language activities by the survey participants.

The target groups of the organisations which participated in the survey are **mixed** and include people with visual impairment, people with hearing impairment, native speakers of Dutch with a low socioeconomic status, foreign-language speakers with a low socioeconomic status, people with a migration background, low-skilled people and/or people with low literacy skills. Most organisations cater more generally and **intersectionally** to more than one of these target groups, as the numbers in Figure 37 demonstrate. Organisations that cater to only one type of target audience are typically organisations for people with sensory impairment. In the “Other” category, several organisations indicated that they also cater to foreign-language speakers with high socioeconomic status or to the general population irrespective of any socioeconomic or cultural-linguistic characteristics. Figure 38 illustrates the respective weight of each target group in this survey based on the participating organisations.

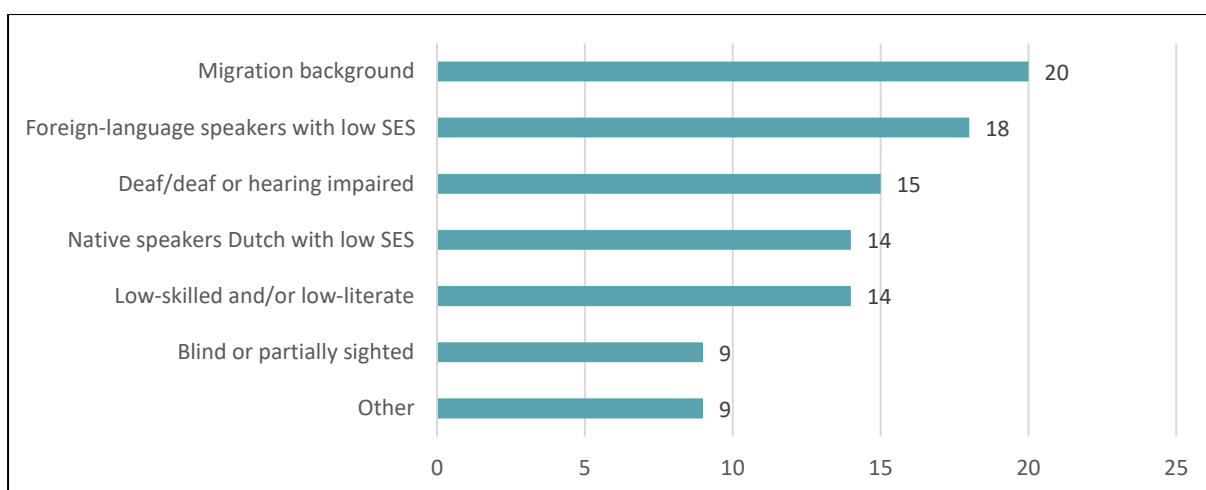


Figure 37 Representation of target audiences amongst participating organisation in the survey.

As such, based on Figures 37 and 38, of the 34 organisations that responded to the survey:

- 59% provide support and services to people with a migration background.
- 53% provide support and services to foreign-language speakers with low SES.
- 44% provide support and services to people with hearing impairment.

- 41% provide support and services to the low-skilled and/or low-literate.
- 40% provide support and services to native speakers Dutch with low SES.
- 26% provide support and services to people with visual impairment.
- **26%** provide support and services to **other groups of people**.

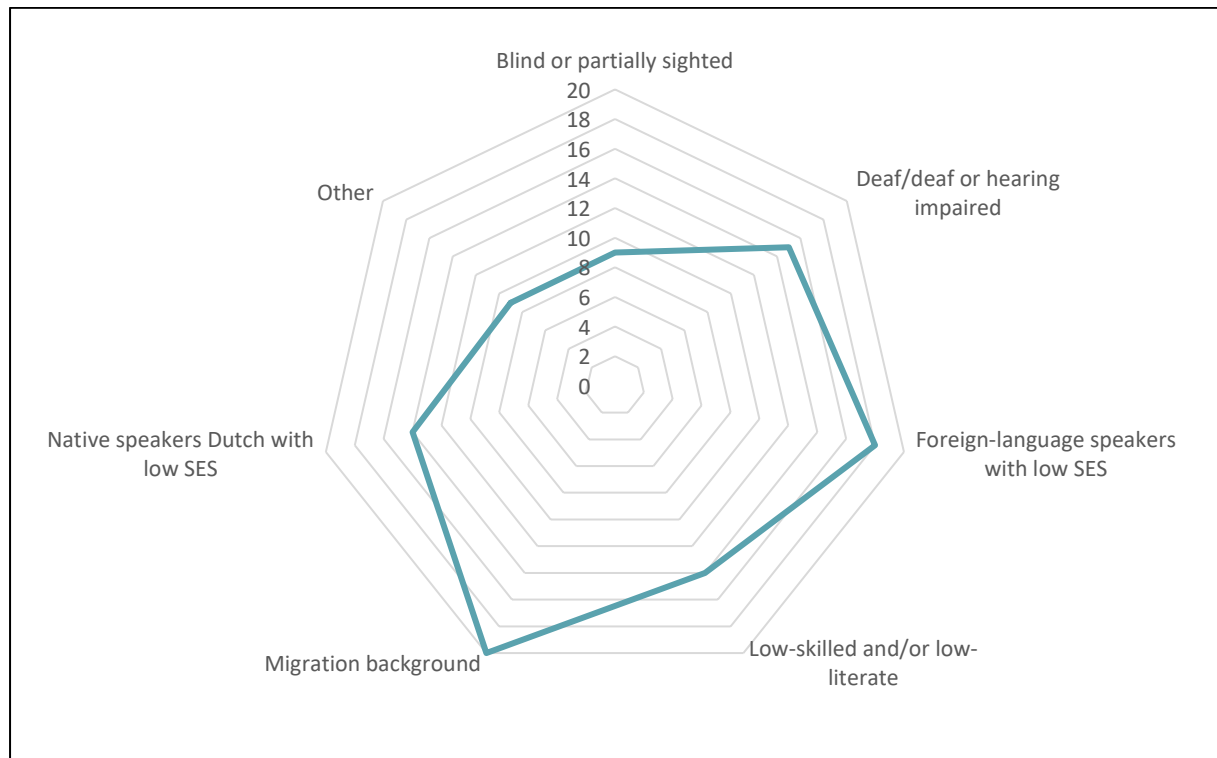


Figure 38 Respective weight of represented target audiences in the survey as mediated by participating organisations.

1.3.2 KNOWLEDGE AND USE OF INCLUSIVE COMMUNICATION INITIATIVES BY THE SURVEY PARTICIPANTS

The majority of the organisations that participated in the survey indicated that they are **aware** of inclusive communication initiatives by the federal government (see Figure 39).

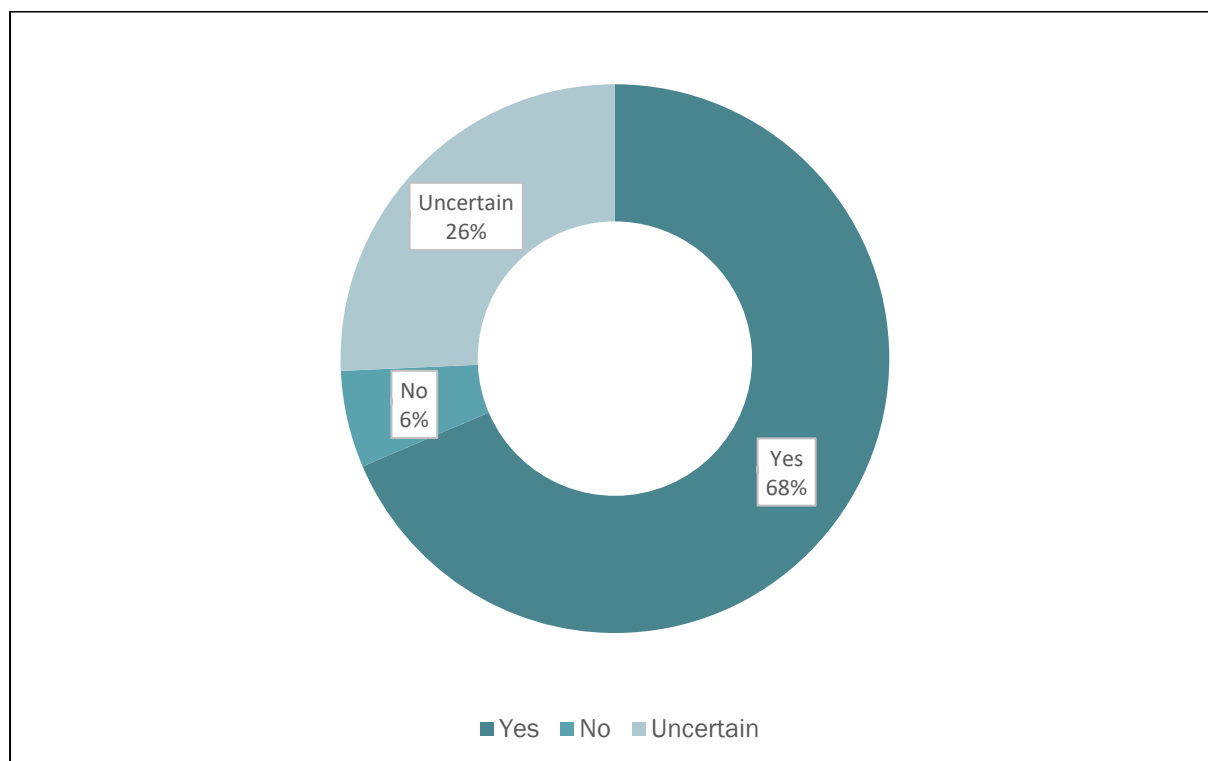


Figure 39 Organisations' awareness of inclusive communication initiatives of the federal government to inform their target audiences.

In reply to the question which kinds of accessible and inclusive COVID-19 communication initiatives they had come across in the past 12 months, the following answers were provided by the organisations, indicative of the **wide range of sources, channels and materials** available in the public domain:

Government sources at the federal level:

- The federal website with COVID-19 information www.info-coronavirus.be
- The website of the Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten (FAGG) which lists questions and answers about the COVID-19 vaccin

Government sources at the regional level:

- The website of the Agentschap Binnenlands Bestuur
- The website of the Agentschap Integratie & Inburgering which offers multilingual information about COVID-19 in Flanders
- The website of the VacCovid vaccination village in Antwerp

Government sources at the local level:

- The website of the Stad Gent which offers information about social initiatives in COVID-19 times
- The website of Atlas Integratie & Inburgering which offers accessible information about vaccination and COVID-19 in Belgium as well as translations
- The website of IN-Gent which offers information about the COVID-19 exit strategy
- The website of Stad Antwerpen which offers translations of COVID-19 information and guidelines

Non-government sources included:

- The website <http://www.nederlandsoefenen.be/>
- The website <http://www.wablieft.be> and various subsites
- The website <http://www.watmag.be>
- The website <http://watwat.be>
- The website of Gezondheid en Wetenschap which offers a detailed file on vaccination

The range of products and materials the organisations mentioned as being aware of included:

- visual communication, such as infographics (“beeldtaalfiches”)
- websites
- video and audio messages
- posters and flyers
- press conferences with Flemish sign language (Vlaamse Gebarentaal, VGT) interpreting
- video messages with VGT interpreting
- live subtitling in COVID-19 related broadcasts on public television channels
- neighbourhood app Hoplr
- public posters and affiches
- television commercials
- short videos for social media

In addition to a relatively high degree of awareness and knowledge of inclusive communication initiatives by the federal government, the vast majority of the organisations who participated in the survey has **also used** these public communication products to communicate with their respective target group(s), as indicated by Figure 40. Of the 34 organisations that responded to the survey:

- **91%** indicated that they had **made use of** federal government COVID-19 communication products to inform their target audience.
- **9%** indicated that they **had not made use of** federal government COVID-19 communication products to inform their target audience.

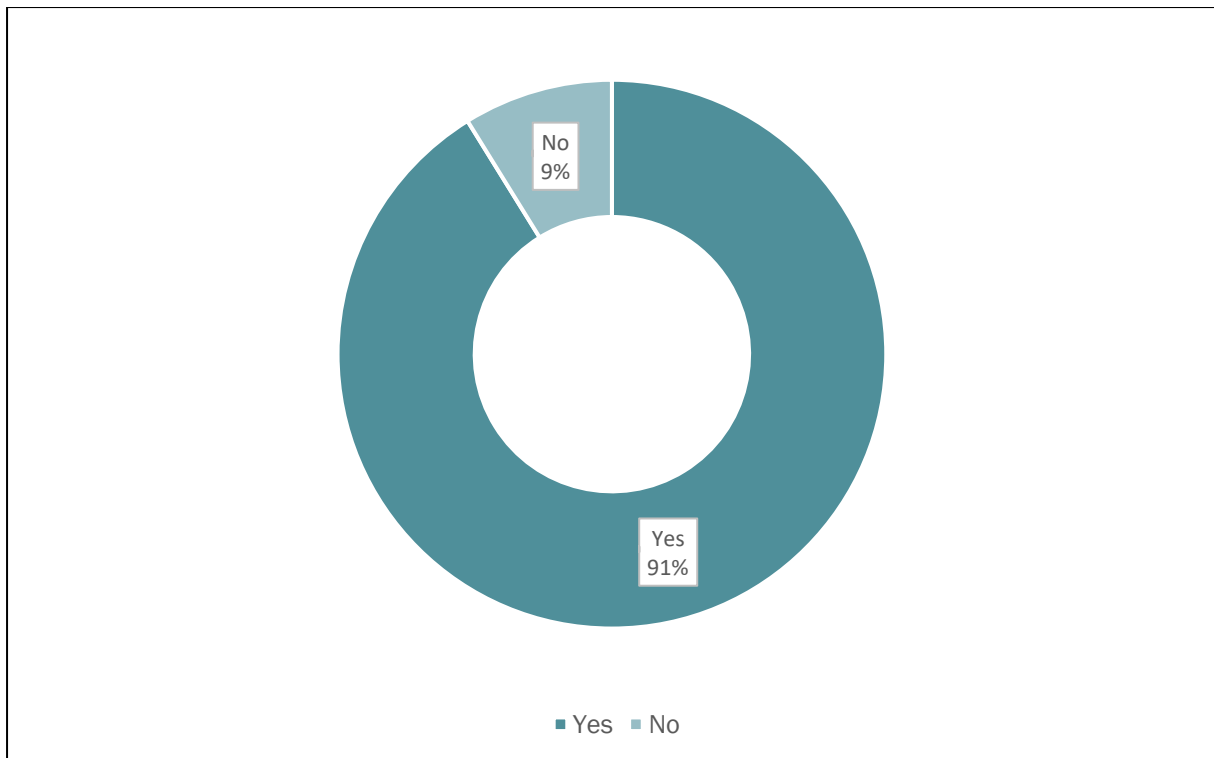


Figure 40 Organisations' usage of COVID-19 communication by federal government.

The 91 percent of organisations who adopted the public communication products breaks down in 40 percent which used the products without introducing any changes or adapting the state of the products as they were provided by the federal government, while 51 percent adjusted these products to fit the needs of their target audience(s) better (see Figure 41). Additional explanation regarding these **adjustments** were provided by survey participants who indicated that these included re-translations in Easy Language, additional information for the target audience, additional explanation about the accessibility of the product and the provision of audio description for certain video products.

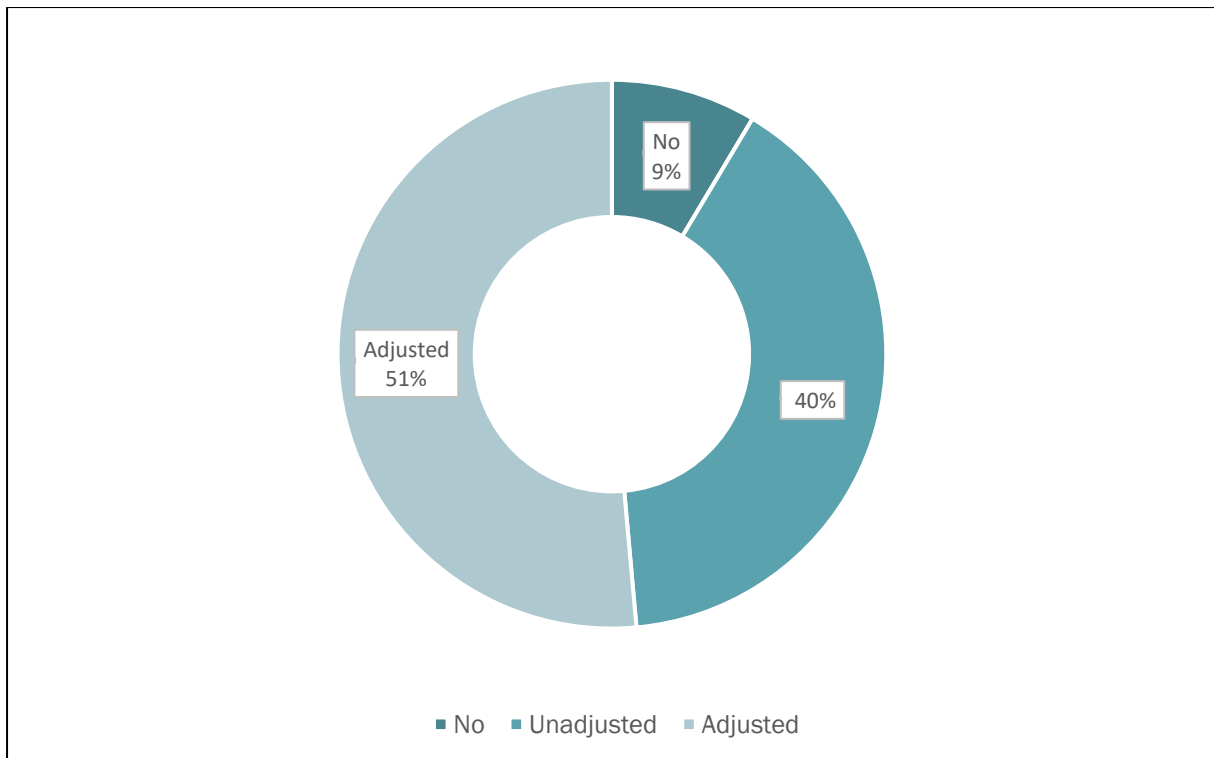


Figure 41 Organisations' adjustments of COVID-19 communication materials by the federal government.

1.3.3 EVALUATION OF THE ACCESSIBILITY OF THE FORM OF COVID-19 COMMUNICATION BY THE FEDERAL GOVERNMENT

In reply to the question how (dis)satisfied the organisations were with the accessibility of the form of COVID-19 communication by the federal government,

- **3%** indicated to be **very satisfied** with the accessibility of the form used by the federal government for communication about COVID-19
- **35%** indicated to be **satisfied** with the accessibility of the form used by the federal government for communication about COVID-19
- **35%** indicated to be **neither satisfied, nor unsatisfied** with the accessibility of the form used by the federal government for communication about COVID-19
- **27%** indicated to be **unsatisfied** with the accessibility of the form used by the federal government for communication about COVID-19
- **No organisations** indicated to be **very unsatisfied** with the accessibility of the form used by the federal government for communication about COVID-19 (see Figure 42).

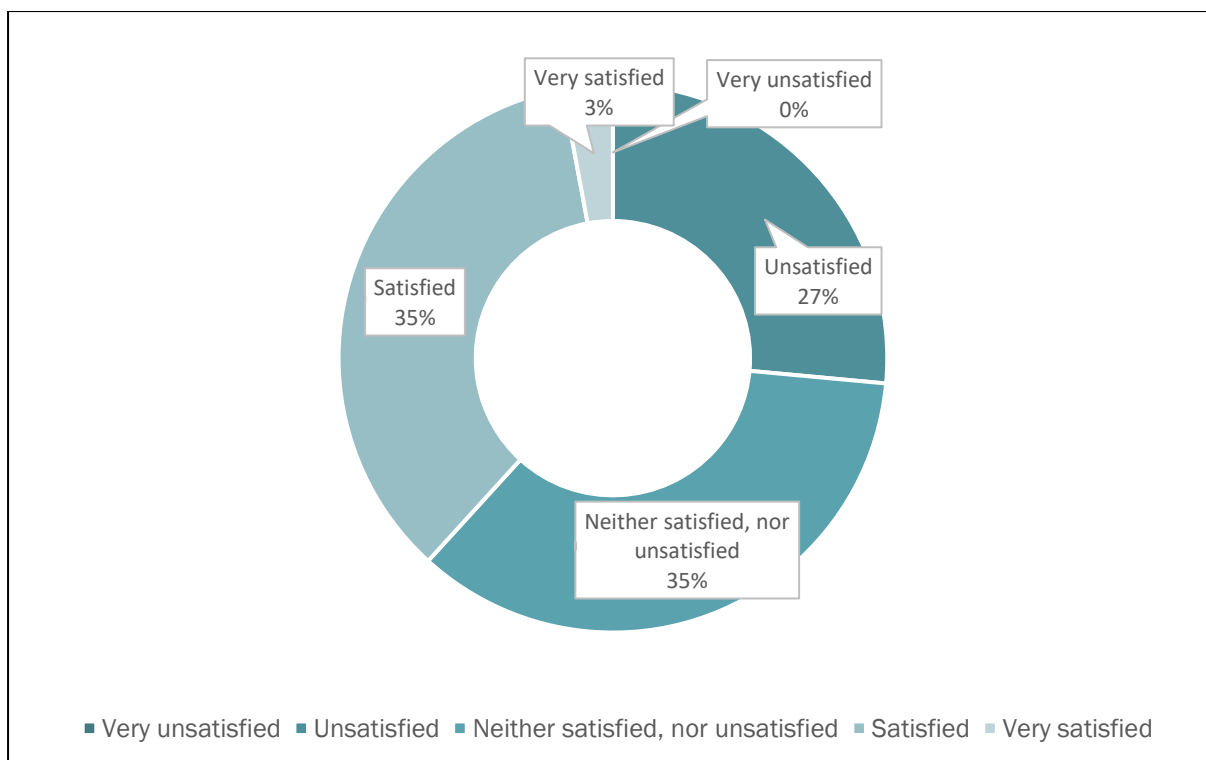


Figure 42 Satisfaction of organisations about the accessibility of the form of COVID-19 communication by the federal government.

In reply to the question whether the target audience(s) have experienced any **barriers and/or problems** regarding the accessibility of the form of federal government COVID-19 communication in the past twelve months,

- **76%** of the participating organisations indicated that their target audience(s) **experienced** specific barriers and/or problems with the federal government's COVID-19 crisis communication.
- **6%** of the participating organisations indicated that their target audience(s) **did not experience** specific barriers and/or problems with the federal government's COVID-19 crisis communication.
- **18%** of the participating organisations indicated that they are **uncertain** whether or not the target audience(s) experienced any specific barriers and/or problems with the federal government's COVID-19 crisis communication (see Figure 43).

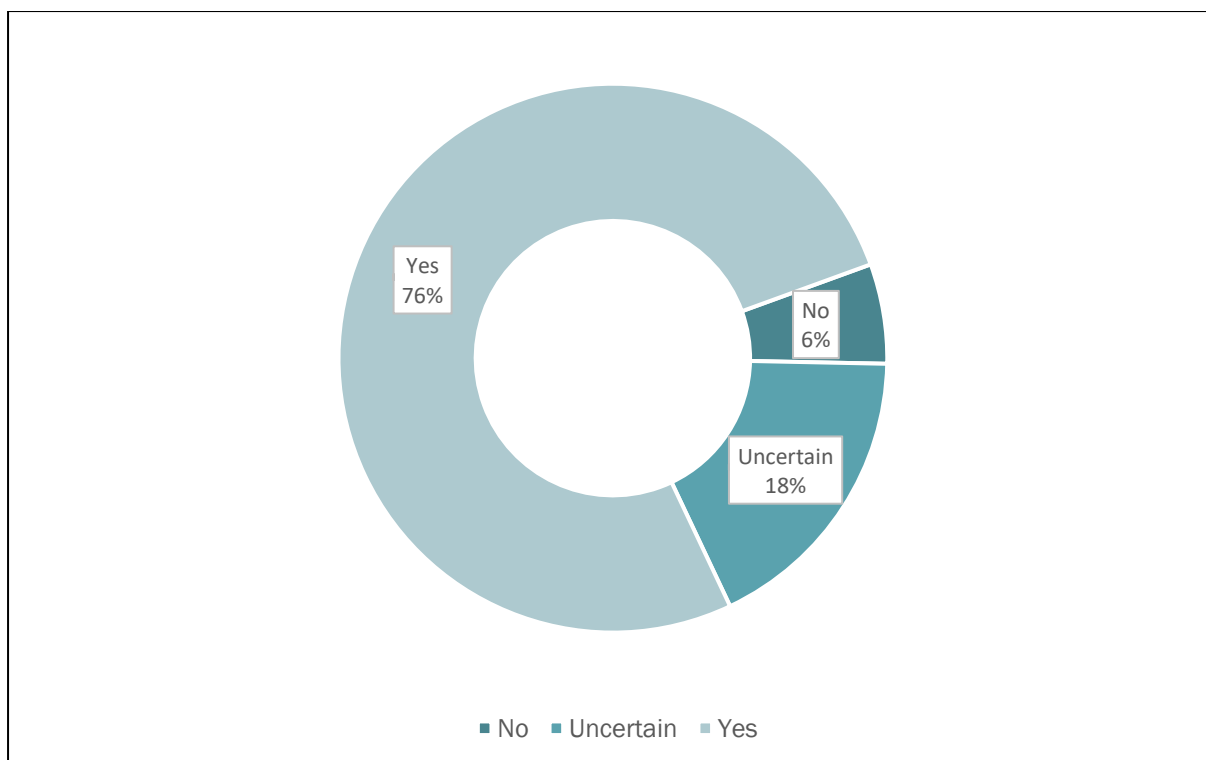


Figure 43 Experiences of barriers/problems regarding the accessibility of the form of the COVID-19 communication by the federal government.

When asked to elucidate which barriers and/or problems the target group(s) experienced regarding the form of the COVID-19-related information developed by the government in an **open question format**, the organisations who represent **foreign-language speakers** referred mainly to language barriers, such as unclear and difficult-to-understand language (both in terms of phrasing and vocabulary), too little availability of translations in foreign languages and an excessively large amount of textual information instead of visual information.

Regarding the **barriers for people with low literacy skills**, the first barrier (i.e. lack of Easy Language) and the last barrier (i.e. too much textual information) in the section above were also mentioned frequently. In addition to these two barriers, the organisations criticised the way in which visual communication is presented, stating that the PowerPoint presentations used during the press conferences are too complicated; pictograms and icons are used too sparsely; visual elements do not adequately support the text and vice versa; illustrations are too abstract to understand; and the layout of the communication material is too overwhelming. The disproportionate amount of digital communication compared to offline communication was also regarded by the organisations as a significant problem, as this target group often lacks digital skills or digital infrastructure. Lastly, many of the organisations also regarded the amount of – rapidly changing – information in general as a significant communication barrier. This especially concerned the communication before, during and after press conferences.

For **people with visual impairment**, the organisations pointed out that the majority of the government communication, both online and offline, is unavailable for the target group because its form is inherently inaccessible. Regarding the website www.info-coronavirus.be, the organisations noted that, even though the federal government has signed the EU directive and is thus bound to implement the Web Content Accessibility Guidelines (WCAG) 2.0 AA from 2021 onwards, much of the COVID-19-related information on the website is still not accessible to

people with visual impairment. Examples of inaccessible digital communication are the videos with relevant visual information for which audio description is not provided and informative PDFs which are incompatible with text-to-speech readers. Moreover, the information that is available on the website, is difficult to find because the website lacks a logical structure. In addition to inaccessible communication online, the organisations are also dissatisfied with the offline forms of communication, or better said, the lack in variety thereof. This is problematic, as one organisation reports that digital illiteracy is still quite common within the group of people with visual impairment.

With respect to **people with hearing impairment**, the organisations noted that the video messages and press conferences in Flemish Sign Language (VGT) are a good starting point, but pointed out that more communication material in VGT and with subtitles is still needed for the group to gain equal access to COVID-19-related information. According to the organisations, in times of crisis like the COVID-19 pandemic, people with hearing impairment need to be able to access government information directly and at the same time as the hearing population (i.e. Live Text Access). This is partly resolved by the VGT interpreters and the live subtitles during the press conferences (although currently only for press conferences broadcasted on public TV channels), but oftentimes those 'big' moments do not entirely meet the accessibility criteria. For example, one organisation noted that the subtitles in the VGT videos are not very visible and thus not accessible for people who are hard of hearing but also do not understand VGT. Lastly, the organisations also frequently mentioned face masks as a common communication barrier, as they make it impossible for the target group to lip-read.

In reply to the question **how** the organisations discovered or were made aware of any barriers and/or problems experienced by the target audience(s) due to the form of federal government COVID-19 communication in the past twelve months, only 28 out of the 34 organisations answered this question. Multiple answers were possible. As shown in Figure 44, of those 28 organisations that responded:

- 20 discovered federal government communication barriers and/or problems through their **target audience**.
- 15 discovered federal government communication barriers and/or problems through their **professional environment and networks**.
- 14 discovered federal government communication barriers and/or problems through user **representatives or experts**.
- 13 discovered federal government communication barriers and/or problems through their **personal environment**.
- 8 discovered federal government communication barriers and/or problems through their **experts-by-experience** (“*ervaringsdeskundigen*”).
- 4 discovered federal government communication barriers and/or problems through the **news and other public media**.
- 1 discovered federal government communication barriers and/or problems through **other ways**.

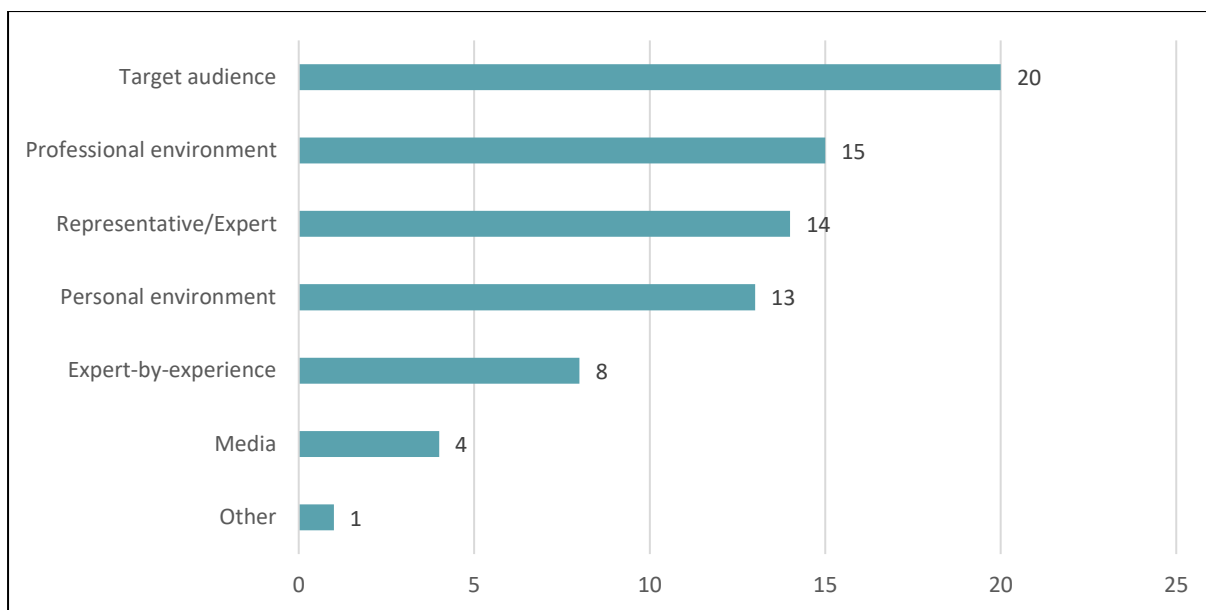


Figure 44 Discovery of barriers for target audience(s) in the form of COVID-19 communication by the federal government.

1.3.4 EVALUATION OF THE ACCESSIBILITY OF THE CHANNEL OF COVID-19 COMMUNICATION BY THE FEDERAL GOVERNMENT

In reply to the question how (dis)satisfied the organisations were with the **accessibility of the channel** of COVID-19 communication by the federal government, 33 organisations answered, of which

- **0%** is **very satisfied** with the accessibility of the channel used by the federal government for communication about COVID-19
- **30%** is **satisfied** with the accessibility of the channel used by the federal government for communication about COVID-19
- **43%** is **neither satisfied, nor unsatisfied** with the accessibility of the channel used by the federal government for communication about COVID-19
- **21%** is **unsatisfied** with the accessibility of the channel used by the federal government for communication about COVID-19
- **6%** is **very unsatisfied** with the accessibility of the channel used by the federal government for communication about COVID-19 (see Figure 45).

In reply to the question whether the target audience(s) have experienced any barriers and/or problems regarding accessibility of the channel of federal government COVID-19 communication in the past twelve months, 33 organisations answered, of which

- **6%** said that their target audience(s) **did not experience** specific barriers and/or problems with the channel used by the federal government for COVID-19 crisis communication.
- **15%** said that they are **uncertain** whether or not their target audience(s) experienced specific barriers and/or problems with the channel used by the federal government for COVID-19 crisis communication.
- **79%** said that their target audience(s) **experienced** specific barriers and/or problems with the channel used by the federal government for COVID-19 crisis communication (see Figure 46).

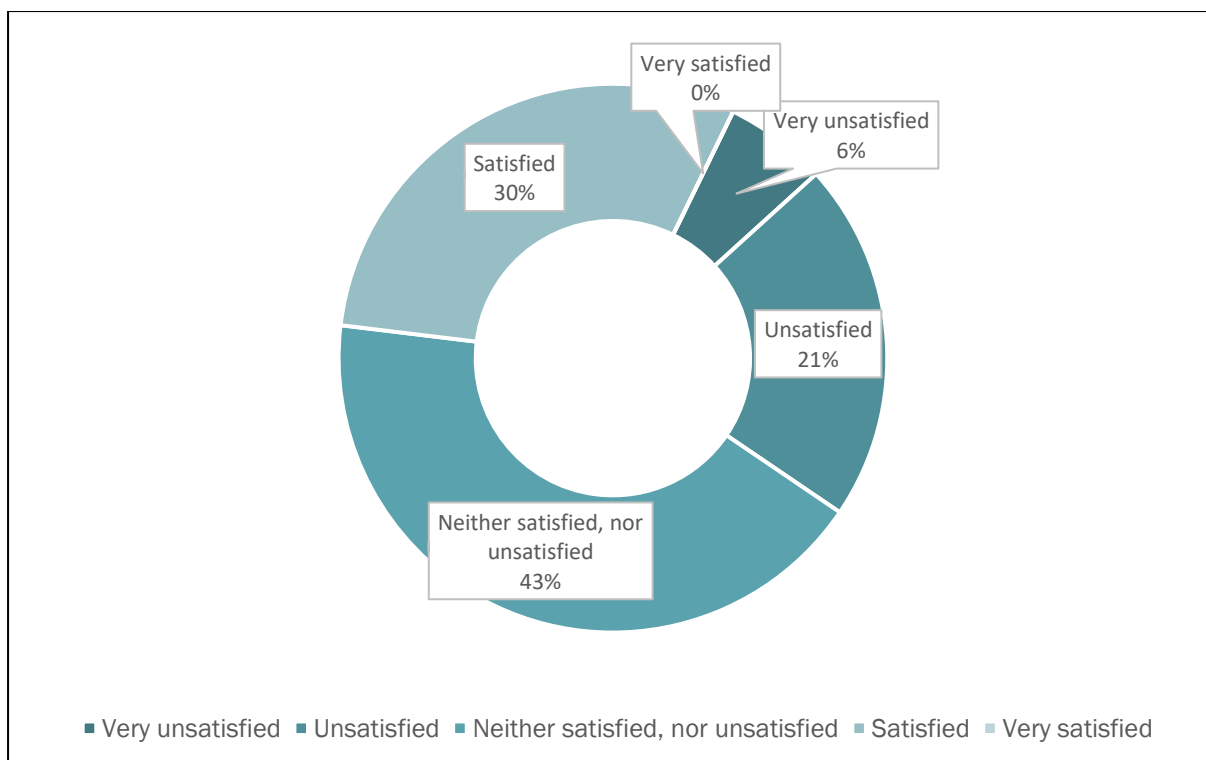


Figure 45 Satisfaction of organisations about the accessibility of the channel of COVID-19 communication by the federal government.

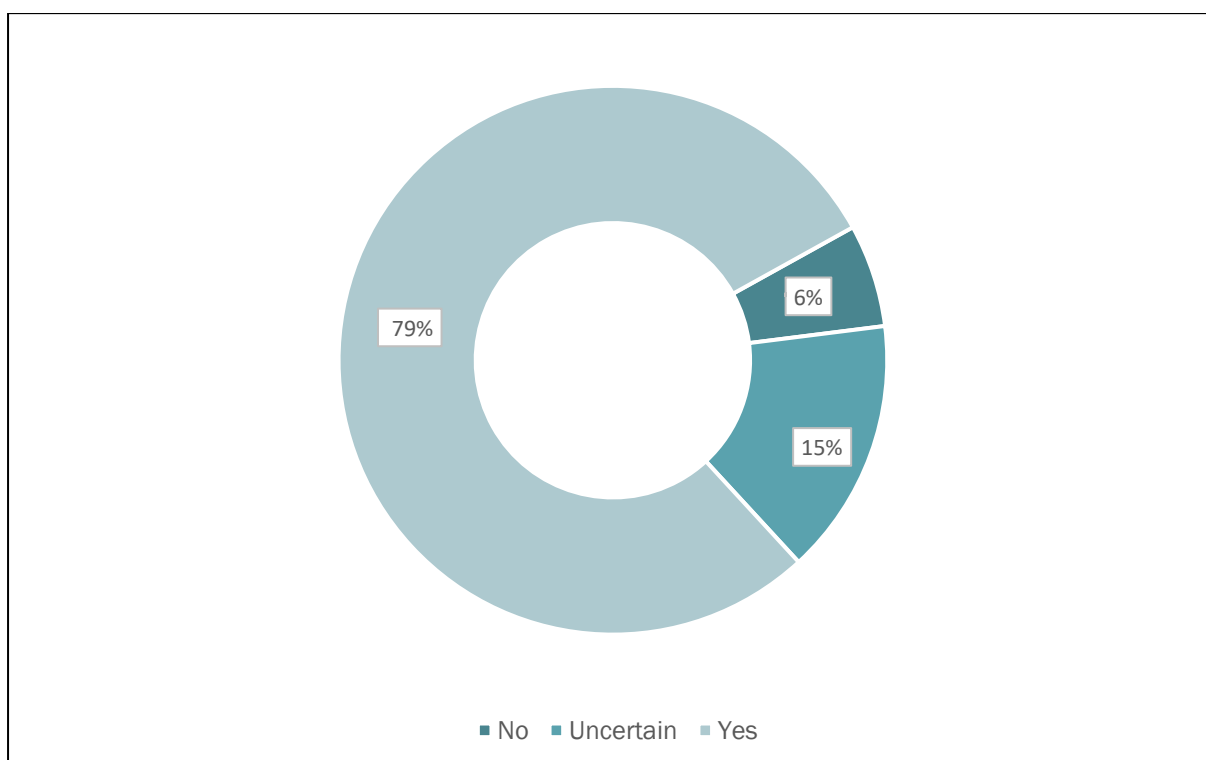


Figure 46 Experiences of barriers/problems regarding the accessibility of the channel of the COVID-19 communication by the federal government.

When asked **what kind of barriers and/or problems** the target group(s) of their organisation have faced regarding the channels through which the government disseminated COVID-19-related

information in an open question format, the respondents identified some **specific barriers for the different target groups** in question, as well as **barriers relevant to the general population**.

Some of the barriers relevant to the general population concern the **federal website** www.info-coronavirus.be. In this respect, the organisations pointed out that the website is not conveniently organised, so much so that even some experts and intermediaries have a difficult time finding the communication material they are looking for. According to the responses, the fact that the COVID-19 communication material is scattered across the different communication channels of the different authorities on a federal, regional and municipal level respectively, makes it even more difficult for organisations to find relevant material to distribute among their target groups. Even on the federal website, the information is scattered, since it contains a lot of URL links redirecting to information on other websites. In addition, the organisations indicated that most of their target groups do not find their way to these official channels and thus fail to obtain important information because it is not made available on the channels the target groups do consult. Overall, the organisations suggested that the government could partly solve these issues by distributing their information more exhaustively and timely via social media, and not only on their own social media channels, but also on the social media channels of influencers and through social media advertisements. Another important part of the solution given by the organisations is personal communication through intermediaries, as a large part of the target groups in question have little to no access to the Internet and thus cannot retrieve information through digital channels.

The barriers mentioned above were also mentioned when organisations specifically referenced the barriers possibly encountered by **native speakers of Dutch with low literacy**. However, for **foreign-language speakers** some additional barriers were mentioned. Firstly, the organisations pointed out that there is no clear communication strategy regarding the dissemination of translated communication materials, which hinders the development of a more efficient communication approach for this target group. In addition, according to one organisation, there is a political reluctance to provide translations on posters and leaflets in public, which only makes this issue worse. Lastly, the organisations also stated the absence of multilingual operators and contact persons reachable through an info number as a barrier for this group.

With regard to the **channel-related barriers for people with visual impairment**, the organisations noted that these play less of an important role for the target group, as the accessibility issues do not originate from the channel in itself, but from the way in which the channels present the information, i.e. the form of the communication. For example, one organisation noted that social media can be a great tool for communicating information about COVID-19, but that it all depends on whether or not the images on the channel are accompanied by an image description (i.e. alt text) or not.

Regarding the barriers for **people with hearing impairment**, the organisations mentioned two main issues. First of all, many organisations noted that the government missed an important opportunity by not providing more subtitled and VGT communication messages on television. The organisations explained that there are a lot of elderly people in this target group, who are not familiar with or do not have access to digital channels, and therefore do not find their way to the accessible videos and press conferences on the website www.info-coronavirus.be. According to the organisations, this target groups would benefit greatly from more COVID-19-related communication – with subtitles and VGT interpreters – on television, for example as a commercial between television shows. Second, the organisations applauded that videos in VGT

are available on the website www.info-coronavirus.be, however they stated that it would be even better if the landing page of the website is made accessible in the same way. In other words, the respondents recommended using more visual elements to explain which information the website contains and where it can be found as people with hearing impairment are very visually oriented. This can be done by adding an introductory video in VGT on the landing page of the website and by adding a recognisable pictogram for information in VGT.

In reply to the question how the organisations discovered or were made aware of any barriers and/or problems experienced by the target audience(s) due to the channel of federal government COVID-19 communication in the past twelve months, only 25 out of the 34 organisations answered this question. Multiple answers were possible. As shown in Figure 47, those 25 organisations that responded:

- **19** discovered federal government communication barriers and/or problems through their target audience(s).
- **19** discovered federal government communication barriers and/or problems through their professional environment.
- **16** discovered federal government communication barriers and/or problems through their representative/expert.
- **12** discovered federal government communication barriers and/or problems through their personal environment.
- **10** discovered federal government communication barriers and/or problems through experts by experience.
- **3** discovered federal government communication barriers and/or problems through the media.
- **1** discovered federal government communication barriers and/or problems through other way.

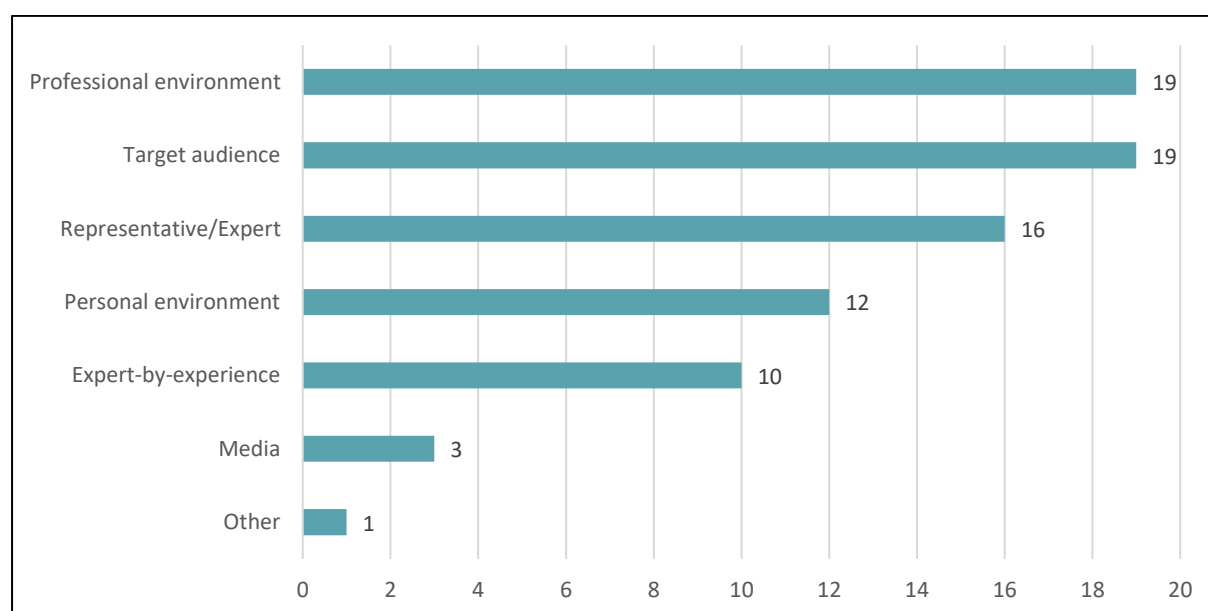


Figure 47 Discovery of barriers for target audience(s) in the form of COVID-19 communication by the federal government.

1.3.5 SURVEY PARTICIPANTS' OWN INITIATIVES TO MAKE COVID-19 COMMUNICATION MORE ACCESSIBLE

In the final questions of the survey, organisations were asked whether they undertook any initiatives themselves to address the barriers and/or problems with the accessibility of the form or the channel of the COVID-19 communication by the federal government. As shown in Figure 48, 94 percent of the organisations undertook initiatives themselves, while 6 percent did not do so. Figure 49 outlines the specific type of initiatives the organisations undertook, indicating that out of the 30 organisations that answered this question:

- 19 developed their own inclusive communication product in response to the barriers and/or problems with the form or channel of federal government COVID-19 communication
- 16 reported the barriers and/or problems with the form or channel of federal government COVID-19 communication to the federal government
- 8 wrote an internal guideline in response to the barriers and/or problems with the form or channel of federal government COVID-19 communication
- 8 did their own internal evaluation or research in response to the barriers and/or problems with the form or channel of federal government COVID-19 communication
- 7 wrote a report in response to the barriers and/or problems with the form or channel of federal government COVID-19 communication
- 15 took other initiatives in response to the barriers and/or problems with the form or channel of federal government COVID-19 communication

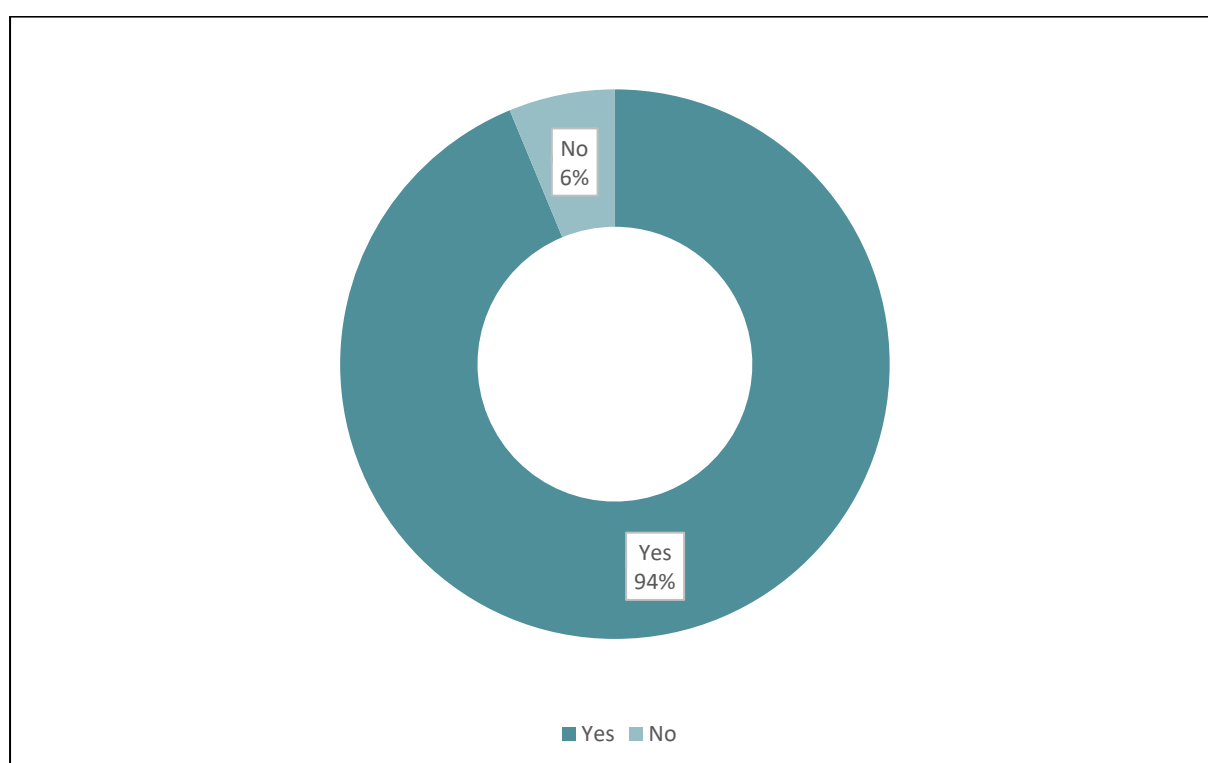


Figure 48 Undertaking of initiatives addressing barriers in form/channel by organisations participating in the survey.

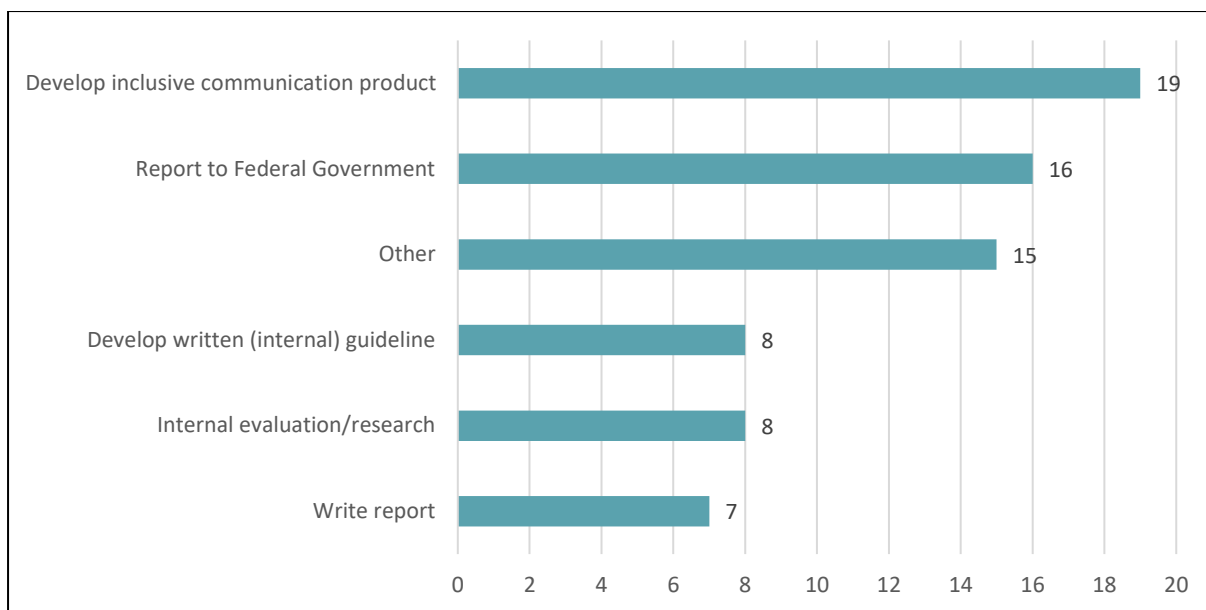


Figure 49 Type of initiatives undertaken by organisations.

In the other category, organisations mentioned the following additional initiatives/activities:

- Spreading information to the target group via social media channels (WhatsApp, Facebook) and via classroom activities
- Collaborating with local governments in the production of accessible communication products
- Establishing a working group with intermediaries
- Consulting and assisting public broadcast channels to optimise the accessibility of the communication
- Conducting an evaluation survey amongst the target group

1.4 DOCUMENT ANALYSIS RESULTS

In this chapter of the report, the existing data collected from the reports and documents delivered to us through the advisory board is synthesised based on target group, accessibility barriers and instruments. In other words, what follows is a descriptive overview of all the information we have received from the advisory board organisations concerning the accessibility of the government's COVID-19 crisis communication for their target groups. The data we obtained is an assortment of internal evaluations, research reports, best practices, policy recommendations, and other relevant documents and information (see REFERENCES at the end of this report).

1.4.1 ADDITIONAL AND TAILOR-MADE COMMUNICATION FOR GROUPS VULNERABLE TO INFORMATION EXCLUSION

According to the report by Kortom vzw authored by Eric Goubin the **main sources** from which the Flemish population gathered information during the first COVID-19 wave are the National Crisis Center of the federal government, the Coordination and Crisis Centre of the Flemish government (CCVO) and their associated websites, social media, and Be-Alert.

Considering the government's prominent role in providing COVID-19-related information to the general public, it is of crucial importance that the information they provide is **accessible** to and **understandable** for **all types of population groups**, regardless of their level of literacy, socioeconomic status, language, cultural background or disability (Kortom vzw).

Kortom vzw argues that, in order to achieve full information accessibility, an **inclusive crisis communication strategy** that achieves the widest possible reach to the 'general public' but also reaches specific target groups more vulnerable to information exclusion, is necessary. And although it might sound contradictory, equal rights to information must be achieved with an unequal use of communication measures (Kortom vzw). For target groups, such as the ones mentioned in the introduction of this report, additional and tailor-made communication efforts have to be made, so that barriers to successful interaction with these groups can be remedied and crises such as the COVID-19 pandemic do not affect these groups disproportionately more than they already do.

What follows is an overview of the barriers and problems each target group experiences in terms of accessing the COVID-19-related government communication and which solutions the government can offer in order to eliminate these barriers, based on the relevant reports and documents obtained from the advisory board.

As stated in the introduction, the main target groups the project focused on are ethnic-cultural minorities, linguistic minorities, people with a low socioeconomic status, people with low literacy skills, and people with sensory impairment. The report discusses these groups and the corresponding accessibility barriers and recommendations in the following order and categorisation:

- Socioeconomic, ethnic-cultural and linguistic minorities
 - Foreign-language speakers and native speakers of Dutch with low literacy and/or a low socioeconomic status;
 - Ethnic-cultural minorities, foreign-language speakers and people with a migration background who are literate;
- People with sensory impairment
 - People with visual impairment;
 - People with hearing impairment.

The groups are categorised in this manner because their communication accessibility needs are similar to one another. The order in which they are discussed in this report is irrelevant and should not be seen as an indication of priority as inclusive crisis communication should be accessible to all. In each section, we separately discuss the issues regarding the *form* of the crisis communication and the ones regarding the *channel* through which the communication is disseminated.

1.4.2 SOCIOECONOMIC, ETHNOCULTURAL AND LINGUISTIC MINORITIES

1.4.2.1 FOREIGN-LANGUAGE SPEAKERS AND NATIVE SPEAKERS OF DUTCH WITH A LOW LEVEL OF LITERACY AND/OR A LOW SOCIOECONOMIC STATUS

In the webinar ‘Communiceren & sensibiliseren over COVID-19-maatregelen en vaccinaties’ hosted by the Vlaamse Logo’s on the 28th of January 2021, Steven Van Hemelryck from the non-profit organisation De Zuidpoort begins his contribution to the webinar by highlighting some important facts and figures about **literacy**. He states that 1 out of 6 adults in Flanders (800,000 people) has a low level of literacy, 1 out of 3 adults only has basic literate skills (1,600,000 people) and almost 1 out of 2 adults often has trouble understanding written forms of communication (2,400,000 people). Yet, as other reports suggest (Steunpunt, 06/07/2020), the majority of the COVID-19 communication material developed and distributed by the government is written in such a way that only highly-educated people can comprehend it.

Having a low level of literacy often intersects with other parameters, such as a low socioeconomic status or a refugee status, which often makes this group more vulnerable to COVID-19 infection and/or other indirect socioeconomic consequences of the COVID-19 pandemic. Therefore, in order to protect people with low literacy skills from these risks, it is of uttermost importance that these people are informed equally as much as – or possibly even more than – people with high-level literacy skills (De Zuidpoort).

A. FORM

EASY LANGUAGE

The majority of the reports and documents we received from the advisory board discuss that, when it comes to the form of the message, **Easy Language** (in Dutch: Klare Taal) is the number one instrument of inclusion, especially for people with low literacy skills. Easy Language is language that is adapted to the specific needs of people who have difficulty reading or understanding texts, for example foreign-language speakers learning Dutch, people with a mental disability, people with learning difficulties and of course people with low literacy skills. The infographic below (Figure 50) is a good example of COVID-19 communication in Easy Language.

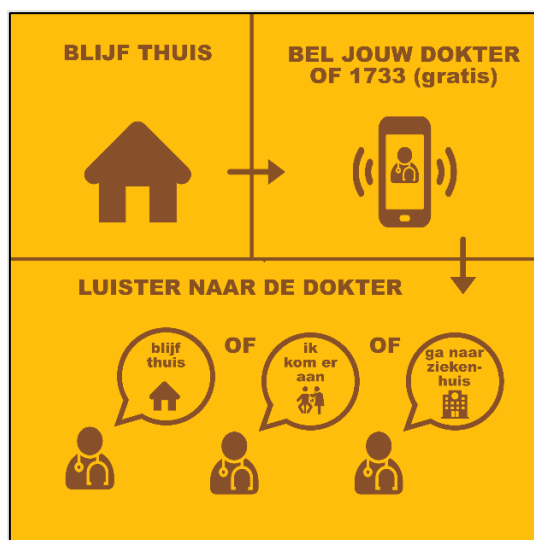


Figure 50 Infographic of COVID-19 safety measures ('What to do if you are sick?') by De Zuidpoort.

In the article ‘6 tips om te communiceren met laaggeletterden tijdens Corona’, Farida Barki from Wablieft and Miet Corneillie and Annelien Mallems from Ligo Antwerpen explain the imperative significance of Easy Language for successful interaction with people with low literacy skills. In order to ensure **easy understanding**, they recommend that the **text** of COVID-19-related messages should not be too long or elaborate, but instead should communicate only the gist of the message, as a low-literate reader is often unable to distinguish between important information and background information (Wablieft; Ligo; IPSOS). The leaflets about contact tracing, for example, contain a lot of text, which will only serve to discourage low-literate and low-skilled people to read the information in the leaflet (IPSOS).

The same is true for **audio** and **video messages**. Barki, Corneillie and Mallems advise to keep audio and video messages short and simple, while still speaking at a slow enough pace so that the listener can follow along and comprehend the message. Other stakeholders share this opinion and report that the speaking pace is an important factor in making the message understandable. For example, in an effort to evaluate campaign videos of the city of Antwerp (Figure 51), some experts and teachers at Atlas and Ligo Antwerp criticise the fast pace at which the people in the video are speaking. This, combined with the fact that the speakers are wearing face masks while speaking, decreases the perceptibility and accessibility of the message significantly.



Figure 51 A print screen of one of the videos ‘Efkes Serieus’ developed by the City of Antwerp to support and encourage young people of adhering to the COVID-19 measures (<https://www.youtube.com/watch?v=vTwTTjX9jeQ>).

Another barrier related to Easy Language is the **vocabulary** used in the communication about COVID-19 (POD MI; Steunpunt; IPSOS). First of all, there is the prevalent use of **English terms** in government communication, especially in the context of the COVID-19 pandemic: e.g. ‘coronaproof’, ‘social distancing’, ‘contact tracing’, ‘task force’ (POD MI, 27/05/2020; Steunpunt 06/07/2020). For foreign-language speakers with low-literacy, the use of English terms is less problematic, but also for Dutch-speaking citizens who already struggle with reading and understanding their own mother tongue, using words in a foreign language in federal crisis communication can create an extra barrier to understand the message. In addition to using English terminology, the government is also said to use **abstract or expert terms** when communicating about COVID-19 (POD MI). These terms represent expert knowledge and expert

language barriers which can be not only difficult to understand for people with low literacy skills but arguably also for the majority of the population. Therefore, steering clear of them is highly recommended by the stakeholders. However, expert knowledge or expert language barriers are not restricted to abstract phrases or concepts only. Phrases such as “do not form groups” or “too busy” count as abstract language as well, since they allow for more than one interpretation. Phrases should therefore be as explicit and simple as possible. Lastly, the IPSOS report mentions **figurative language** as something to be avoided when communicating with people with low literacy skills, since figurative language is more easily misunderstood than straightforward literal language. In order to verify whether or not too much English terminology, expert language or figurative language is used, POD MI (27/05/2020) suggests that the government should consult **experts by experience** during the production process, so that they can proofread the communication material and make adjustments before it is published and/or distributed.

Word and sentence structure are two other factors known for influencing the complexity of a text. The report by IPSOS and the article by Wablieft and Ligo both stress the importance of using short sentences, everyday colloquial language, and short basic words, which are some other cornerstones of Easy Language. The IPSOS report adds that communication materials, such as posters and flyers, should always clearly indicate what the communication is about by using unambiguous and noticeable titles. To illustrate this, the two images below are both posters which were developed and distributed by the City of Antwerp as part of their COVID-19 communication campaign and were evaluated in the IPSOS study. Both posters are about the same topic, i.e. the COVID-19 measures taking effect from October 9th 2020. However, the title of the poster shown in Figure 52 does not explicitly mention that it contains information about the COVID-19 measures, but instead only speaks of ‘measures’ (“regels”) in general. The title of the poster in Figure 53 is more concise than the previous one and clearly indicates the specific topic. The second poster was therefore more positively evaluated in the evaluation interviews conducted with a diverse set of people by IPSOS.



Figure 52 Poster about the new COVID-19 measures taking effect from October 9th 2020 (type A), developed and distributed by the City of Antwerp.

current government communication concerning COVID-19 is reported to sometimes fail to meet these conditions. The IPSOS report provides the pictogram below as an example (Figure 54), and suggests that the pictogram could be improved by simply adding the hands of a clock inside the drawing of the house.



Figure 54 Poster about the new COVID-19 measures taking effect from October 9th 2020 (type B), developed and distributed by the City of Antwerp.

In order to avoid misinterpretation, Wablief, Ligo and VRT recommend using **photographs** instead of pictograms, as the latter are misinterpreted more easily than the former (see Figure 55 for an example).



Figure 55 Photographs used in an infographic by Ligo to inform the target group of the correct use of face masks.

The IPSOS report offers another solution to avoid misinterpretation, which is to always **accompany images by text**. In addition to avoiding misinterpretation, providing text and images together also increases message comprehension and causes the reader to remember the message better. Vlaams Instituut Gezond Leven (Van Brussel) suggests using **representative photographs** of people the target audience might know or recognise, or might identify with. While IPSOS echoes that working with residents and/or people of the neighbourhood or community is a good initiative, as this might encourage people to share the communication material, they argue that people with low literacy skills often struggle to grasp the concept when they do not know the photographed individuals personally.

Another type of visual element that plays an important role when trying to reach people with low literacy skills, is the **logo of the sender of the message**. The IPSOS report explains that adding a recognisable logo of a trusted source to the communication material increases the reader's perception of the **credibility** and **reliability** of the message and encourages people to read the information because a logo from an official source gives the impression that the message is important. Moreover, a logo also indicates that the authorities are making an effort for their citizens, which also contributes to motivation (IPSOS).

AUDIO MESSAGES

Although audio messages have a clear **added value** for people with low literacy skills – because they can listen to the information instead of having to read it – the IPSOS report shows that audio messages in Easy Dutch and in a variety of other languages that Atlas develops, **do not sufficiently reach** native speakers of Dutch with low literacy. This is due to three possible reasons according to IPSOS. Firstly, the audio messages are somewhat hard to find as they are only available on Atlas's website (note: even though since this IPSOS report they have now also been added to www.info-coronavirus.be). Secondly, the current form of the audio messages is not attractive to low-literate native speakers. Instead, they indicate that it is mainly interesting for foreign-language speakers and people with a migration background who speak little to no Dutch.

Thirdly, the **length** of the audio messages can also form a barrier for this group, as in general one's attention span for audio slackens after 60 to 90 seconds.

Native speakers of Dutch with low literacy do frequently listen to audio messages on WhatsApp, in the form of voice memos, and to the radio. In addition, some people with low literacy skills, in particular people younger than 30, sometimes listen to podcasts and livestreams of celebrities when these are recommended to them by family, friends and influencers (IPSOS).

B. CHANNEL

People with low literacy skills, whether foreign-language speakers or native speakers of Dutch, do not use communication channels in the same manner other groups in society do. Therefore, the channels that provide access to government communication should be selected carefully, in order to ensure effectiveness and accessibility of the government's communication. The section that follows discusses the main communication channels used by people with low literacy skills, along with reasons to why some channels are arguably more accessible than others.

PERSONAL COMMUNICATION

Firstly, drawing from a report issued by IPSOS and the City of Antwerp, it appears that people with low literacy skills mainly receive information about COVID-19 through **personal communication**. This includes communicating with family, friends and colleagues about the pandemic. The webinar by Leen Van Brussel from Vlaams Instituut Gezond Leven shows that the use of trustworthy channels, intermediaries and messengers is important in accessible communication for this group. For example, a personal remark by a general practitioner or nurse is a strong incentive for people with low literacy skills to follow certain COVID-19 guidelines. Thus, personal contacts such as these are valuable communication channels to keep in mind when trying to reach people with low literacy skills and informing them about COVID-19.

TRADITIONAL AND SOCIAL MEDIA

Secondly, people with low literacy skills do not always receive information through **traditional media channels**, such as television and/or radio, as this group does not necessarily have the financial means to afford cable television or a personal computer with Internet access. However, when low-literate Dutch speakers do have access to a television or radio, it is usually one of their main sources of information (IPSOS). Especially ATV, VTM, Radio 2 and Nostalgie are reported as channels which are frequently turned to when trying to gather information.

Additionally, access to and fluent use of **Internet and social media** is not a given for this group, and according to Steunpunt (06/07/2020), the **digital divide** in Flanders is becoming painfully more visible because of COVID-19. The report by Kortom vzw shows that, ten percent of the Belgian population does not have an Internet connection. For people with a low income, this adds up to 29 percent (Kortom vzw). Furthermore, there is an even larger group of people who do have an Internet connection but cannot find their way around the web or cannot keep up with the ever-changing software updates, apps, social media, etc. Emails, notifications and newsletters are usually left unread and Google or other search engines are not used on a regular basis.

WhatsApp, Instagram and Facebook are reported as being used, but mainly to stay in touch with friends. Occasionally, people with low literacy skills will be exposed to sponsored messages in their social media feed (e.g. City of Antwerp, district pages, etc.). But in the end, the city's Facebook and Instagram pages do not reach the desired number of people, since their following is too small (IPSOS). This means that the Internet and issues of digital literacy, usage and access can form a serious barrier to access relevant information about COVID-19, which is problematic, since a disproportionally large amount of the communication on COVID-19 is distributed online.

Therefore, it is important to choose a digital medium that the target audience is **familiar** with, a report from Wabliedt and Ligo underscores. For example, daily contact with intermediaries through WhatsApp with audio messages or sharing videos will be much more effective than communicating via letters, as Uschi Nys from the Vlaamse Logo's pointed out that people with a low socioeconomic status can often be too afraid to open envelopes sent by official institutions, as they think it will be a bill or a warning notice (personal communication).

Communication, irrespective of the specific channel, should be kept **simple** at all times. This means that the use of URL links to websites on which the target audience has to click further to find the relevant information, is best avoided. The same accounts for QR codes provided on offline communication. People with low literacy skills usually do not use these QR code, because they find them too complicated or are unfamiliar with them (IPSOS).

PRINTED MEDIA

Thirdly, printed media such as **leaflets** and (free) **magazines** do not perform well in this group, since they usually contain too much text. Instead, **posters** that effectively combine visual images with little text are most appreciated. Especially when people are waiting for public transport to arrive, a visually appealing poster with little text will usually be noticed and read, as the IPSOS report shows. **Repeated exposure** to printed media proves effective, since it makes memorising the information easier.

VIDEO COMMUNICATION CHANNELS

Lastly, video communication channels work quite well. **Video messages** bring people with low-literacy in touch with role models and influencers with whom they can identify themselves. Shorter video messages can easily be disseminated through **social media** channels like WhatsApp and Facebook. Online social media 'groups' work particularly well for this. In addition to this personal use of video message, the public aspect of this medium can be helpful. One can for example think of displaying short videos on screens in public places, such as train stations and bus stops.

ROLE MODELS

Drawing from a report issued by POD MI, **social media influencers**, **vloggers** and **role models** can form a useful channel for people with low literacy skills to access information about COVID-19 in Flanders. Whenever these role models share information in a story or via a social media post on Facebook or Instagram, the target group is more likely to respond to that information. They are also more prone to believing the information provided.

1.4.2.2 ETHNIC-CULTURAL MINORITIES, FOREIGN-LANGUAGE SPEAKERS AND PEOPLE WITH A MIGRATION BACKGROUND WHO ARE LITERATE

The following is a summary of findings from reports issued by Kortom vzw, POD, IPSOS & the City of Antwerp, Atlas, SAAMO Antwerpen, and VGC. This section specifically deals with government communication with at the receiving end ethnic-cultural minorities, foreign-language speakers and people with a migration background who are literate.

A. FORM

AUDIO MESSAGES

In order to improve the accessibility of government crisis communication for said individuals a variety of communication forms can be used. One of these forms are **audio messages**, which most of the reports mention as a crucial tool for removing communication barriers for foreign-language speakers (VGC; Atlas; IPSOS). The report by IPSOS explains that audio messages are especially relevant for foreign-language speakers, because this group is used to communicating with each other through and acquiring information from auditive channels, such as podcasts, livestreams and news broadcasts from their country of origin. On the other hand, providing audio messages in multiple languages also proved to be quite helpful for Dutch-speaking people with a migration background, as they could easily send these messages to family members and friends who do not speak Dutch and/or have low literacy skills.

Most of the audio messages about COVID-19 circulating in Flanders are provided by Atlas. Atlas produces these audio messages both in Easy Dutch and in a variety of other languages. Based on the quantitative research by Atlas into the impact of the COVID-19 communication on foreign-language speakers, it is clear that the audio messages have helped the target group to access and understand the COVID-19-related information. The report shows that 42 percent of respondents had listened to the multilingual audio messages they received via email or via the website. When the respondents were asked which form of federal or local government communication they consulted the most, 36 percent of them mentioned the **multilingual audio messages**. The same report gauged the respondents' confidence in the audio messages as an information source. Results show that the majority of the respondents (80%) place a lot of trust in sources from the City of Antwerp, Atlas and the government at large.

The same findings are echoed by SAAMO Antwerpen. The organisation reports that audio messages in Easy Dutch and translated audio messages are a very successful instrument for improving foreign-language speakers' access to and comprehension of information concerning COVID-19. Moreover, the organisation highlights the ease with which audio messages can be distributed to the target group through **WhatsApp**. This benefits both the end user and the intermediary sharing the information, as the end user has the possibility of replying to the audio message with questions.

What should be kept in mind with regard to audio messages, is that they should **not last longer than 60 seconds**, as the attention span of the listener generally slackens after this moment (IPSOS). However, making the messages shorter does not allow the speaker to pick up the pace of the message. In order to ensure complete comprehension, the speaker of the audio messages should speak **slow and clear** (Wablieft & Ligo). Another improvement that could be made, is the

availability of the audio messages. The respondents of the IPSOS research complained that the audio messages were only available on the website of Atlas and were difficult to find.

In addition to audio messages, SAAMO Antwerpen put forward **text-to-speech** as a possibly useful accessibility measure. In their report, Samenlevingsbouw Antwerpen mention that some websites, such as Atlas' website, offer text-to-speech (TTS), which makes it possible for the visitors on the website to choose to listen to the text instead of reading it. Although the TTS function is mainly targeted at people with visual impairment and people with dyslexia, SAAMO Antwerpen notes that TTS could be extremely valuable for people with low literacy skills. They continue to say that it would be especially helpful if the website content was translated in multiple languages and that the TTS application supported these languages.

VIDEO MESSAGES

Just like audio messages, **video messages** have proven to be quite effective in improving accessibility for foreign-language speakers. For the most part, the same guidelines apply for audio as for video messages. For a successful video message, the IPSOS report adds that the **images** and the **people** present in the video should reflect the superdiverse population of Flanders. In addition, watching videos spoken in their own respective language allows viewers to identify more easily with the subject of the video, and consequently the information is transferred more effectively (IPSOS).

The use of **subtitles** in video messages is also highly recommended when trying to reach foreign-language speakers. However, Atlas and Open School Antwerpen state that subtitles are only as effective as the rate of the speaker allows them to be. When the **pace** of the speaker in the video is too fast, subtitles will prove little to no use, because the viewer will be unable to follow along with them.

TRANSLATIONS

Written translations are a necessary and effective form of communication to increase foreign-language speakers' access to government communication about COVID-19. The quantitative research conducted by Atlas shows that 9/10 respondents that came in contact with translations claim that translations are important and necessary. According to the IPSOS report, translations mostly satisfy the communication needs of foreign-language speakers, because they allow them to inform themselves and the people in their environment and community (parents, friends, neighbours). In the context of the COVID-19 pandemic, translations play an important role in informing foreign-language speakers, by encouraging them to read the information in their own respective language. Translations also facilitate the adoption of correct behaviour according to the COVID-19 guidelines and sharing the communication with people in their direct environment. This is particularly important for Dutch-speaking people with a migration background who can forward the information to foreign-language speaking parents, friends, etc. Lastly, translated texts invoke a sense of **inclusion** and presents an image of the (local) government being in touch and taking the effort to inform its citizens (IPSOS). An example worth mentioning here is the recently developed Crisis Information Translated app (<https://www.integratie-inburgering.be/nl/cit>) which offers up to date translations of the COVID-19 measures and the vaccination campaign in Flanders in 17 languages. Providing translations also simultaneously

reflects the gravity of the COVID-19 situation and the importance of communicating the correct information to foreign-language speakers as well.

Translations also have some **drawbacks** that must be considered. Translations are subjected to specific language laws in Belgium. In the early stages of the COVID-19 pandemic outbreak in Belgium, translations online, in print and in the public space were allowed as an exception to the language laws given the context of national health crisis and the role they can play to address an urgent crisis, to save lives and to increase accessibility to government communication. The IPSOS report also mentions that the translations are always accompanied by the original Dutch version of the communication. This way foreign-language speakers and Dutch-speakers both have access to the information. In contrast, monolingual communication in the form of a translated text only, is claimed to invoke a sense of distrust among some Dutch speakers with no migration background. Questions in this group can arise: What does the translated text say? Is the translated information the same as the original? Has the original been translated correctly? Etc. Furthermore, the reports show that the perception of favouring a certain foreign language over another when providing translations must be avoided.

LEAFLETS AND POSTERS

Another example of a communication form that has been used to communicate about COVID-19 are **leaflets** and **posters**. However, the benefits of the former are few, and the problems can be substantial for this target group. The IPSOS report mentions that leaflets are not always read because they prove to be cumbersome, lose their relevance quickly and are sometimes written in a language that the reader does not understand. In order to produce printed leaflets that are more accessible, the leaflets should be developed keeping **Easy Language** in mind. A **digital leaflet** can also be used, which is often more accessible and allows for the information to be updated more frequently. The IPSOS report highlights that for foreign-language speakers the ideal leaflet should contain only a small amount of text and be accompanied by **strong visual elements**.

The IPSOS report also suggests providing a **translation** directly on the leaflet itself. However, this would only increase the amount of text on the leaflet, making it less likely people will read it. An alternative would be to provide the translation through a QR-code on the leaflet, either in text form or in the form of an audio message. The IPSOS report highlighted that the Dutch speakers with a migration background expressed that it would be very useful if the information on the posters and flyers could be accessed in a translated and auditive form through the QR-code on the poster or flyer, in order to assist family members and friends who do not speak Dutch and/or have low literacy skills.

Visibility of (translated) posters also plays an important role. Respondents from research into multilingual communication conducted by Atlas and the City of Antwerp shows 50 percent of respondents had seen posters about COVID-19 in the city. The respondents indicate that the posters on the street and public screens are noticed when one walks past them. But, in particular, posters in bus and tram stops reach respondents of all segments. While waiting for the bus or tram to arrive, they read its content.

B. CHANNEL

A second aspect of importance is the accessibility of the different channels through which the communication is distributed to ethnic-cultural minorities, foreign-language speakers and people with a migration background. A **healthy mix of communication channels** proves effective for these groups. **Online communication** is preferred, since it is easily accessible and can be translated into the desired language (IPSOS). In addition to relevant website access through Google, one can disseminate messages quickly through Facebook and WhatsApp groups. Also communication through **intermediaries** and **organisations** such as Atlas, CVO and Encora works well (IPSOS). In what follows the main channels of communication used by foreign-language speakers are explained.

Drawing from the Atlas COVID-19 communication report, the **main sources** of information about COVID-19 during the period from March to June 2020 were the media, Atlas and personal contacts. When the interviewers looked deeper at the main channels within those large categories, they received the following answers most often: television, social media, Atlas trajectory supervisor, family, children, grandchildren and posters on the street. Respondents who replied that they received information about COVID-19 through the media were asked to specify their answer. This showed that television and social media in particular were very popular channels, followed by information on Atlas' website with 18.4 percent.

Respondents who replied that they received COVID-19-related information via Atlas indicated that they received this information mainly through their trajectory supervisor. Respondents who received their information about COVID-19 through their personal contacts mainly mentioned their family, friends and colleagues as a source of information. It is striking that 30 percent also mentioned the **NT2 schools** (schools that teach Dutch as a second language). Respondents who replied that they received COVID-19 information via the City of Antwerp and the government were by far the most likely to mention the posters on the street as a source of information. Audio messages (from Atlas) and leaflets were also popular answers. Participants in the study by Atlas who replied that they received the information about COVID-19 through medical channels most often mentioned the doctor as a source of information.

In addition, **personal communication** plays an important role for this target group. Information is widely shared through friends, family and colleagues but also through local shops and public spaces in general. Intermediaries such as Atlas, CVO and Encora also successfully fulfil this role by disseminating information through personal and phone conversations or text messages. Especially newcomers that have been in Belgium for less than five years have a closer contact with these intermediaries.

One might think of the **Belgian or Flemish media** as another channel that improves access to communication. However, drawing from various reports (IPSOS; Atlas), this channel is not very relevant for foreign-language speakers. The traditional Flemish media channels seem to play no significant source of information for foreign-language speakers. They are more likely to follow the national newspapers and television channels of their respective home country or more internationally oriented news channels such as CNN.

Digital communication does play an important role, in particular amongst the **younger generation**. This fast information channel allows access to information, some of which in the language of choice. Internet and websites are one example. Search engines as Google are reported to be frequently used. The websites of Atlas and the City of Antwerp are used to a lesser extent.

The importance of **social media** cannot be left out of the equation. This channel is used not only to maintain contact with (distant) friends and family members, but also makes for a useful tool to inquire about recent developments and ask questions to group members. Especially WhatsApp, Facebook and Instagram are reported to be popular in use. Twitter is less popular. WhatsApp and Facebook, in addition, allow users to participate in groups that can consist of members belonging to the same ethnic community. These groups are frequently used as a source of information.

The channels frequently used by **Dutch speakers with a migration background** are somewhat different to the ones used by foreign-language speakers. Personal communication plays an important role: (grand)parents are still often dependent on the intermediary function of their (grand)children to convey information, whether that is translated or sometimes in its original form (IPSOS). The VGC report also stresses the importance of this **intermediary function**. For the recipient it is not only important to receive crucial information about COVID-19, but also who brings it to them, in this case a child or grandchild. VGC notes that if we can spread the right information within a particular community through key figures, accessibility to government communication increases dramatically.

Dutch speakers with a migration background are, unlike ethnic-minority individuals, reported to be more sensitive to **printed communication channels** like posters in public places such as bus stops. This group indicates that they read fewer newspapers and magazines, so the posters are of essence in accessible government communication (IPSOS). **Digital communication** also plays a prominent role for this group. Next to the Internet, websites/apps and newsletters/emails, social media is of great importance to access information about cultural activities and events and to stay in touch with family and friends. News on **social media** also reaches this group passively. When browsing the Internet, respondents do not search for information on a specific media channel (news channels, organisation page), but seem to be doing their search in Google's search bar. This is because Google immediately lists information on the search topic and allows its users to select what is most relevant to them. Dutch speakers with a migration background sometimes use the website of the City of Antwerp to obtain concrete (practical) information about Antwerp. The problem here is that they often surf purposefully and have little tendency to browse on the website. In contrast, when one is not focused on searching for particular information, one seems to get a lot of information via Facebook (IPSOS).

In addition, accessibility of information is vastly increased through **smartphone use**. For example, messages (video, voice memo, text) about COVID-19 are reported to be forwarded to/from friends, family and acquaintances via digital communication. This includes updates on (new) COVID-19 measures and satire and funny messages ('memes') for Dutch speakers with and without a migration background. However, digital communication makes users vulnerable to receiving false information. Respondents report they have received 'false information/conspiracy theories' through digital communication channels (IPSOS).

In relation to online communication channels, individuals also receive useful information via **advertisements** and **sponsored messages** (e.g. City of Antwerp, district pages, etc.) in their social media feed. It is not considered annoying to get advertising between the posts on their Facebook timeline or Instagram feed. After all, it is claimed, if one is not interested, one simply scrolls on. Advertisements are not considered to be too intrusive. Even though Instagram seems to be gaining popularity within social media, Facebook is reported to still have a lot of reach at the moment when it comes to disseminating different types of information. However, government

Facebook and Instagram accounts do not have a large following. This means that their communication oftentimes does not reach its target group effectively.

YouTube reaches few people and proves not to be an accessible channel for government communication. While often used by the respondents, little attention is paid to sponsored advertisements before and during the YouTube video. They perceive the advertisement as intrusive while they are impatiently waiting for the video to start. If necessary, advertisements and sponsored messages can be displayed on the sides of the website, but oftentimes the videos are viewed in a 'full screen' mode, making advertisements lose their effectiveness.

1.4.3 PEOPLE WITH SENSORY IMPAIRMENT

As announced earlier, the last group of people for which the current report discusses barriers to communication and possible solutions for these barriers is the group of people with sensory impairment, in particular people with visual impairment, and people with hearing impairment. In the first section that follows, a brief outline of the overall sentiments of people with sensory impairment and the organisations that represent them concerning the government's COVID-19 communication is presented. After this section, a separate and more in-depth account of the communication barriers and accessibility measures concerning the form and channel of communication for, first, people with visual impairment, and then people with hearing impairment. It should be noted here that the reports and evaluations specifically discussing the communication barriers people with sensory impairment experienced during the pandemic are not as extensive as the input we received concerning socioeconomic, ethnic-cultural and linguistic minorities. For this reason, the following sections are less comprehensive than the former and based on the targeted information provided by the main organisations.

1.4.3.1 GENERAL SENTIMENTS AND RECOMMENDATIONS

ATTENTION AND INCLUSION

Every report we obtained from organisations representing people with disabilities, mentions the government's **lack of (long-lasting) attention** to (or awareness of) people with disabilities who need communication adapted to their disability (POD MI, 27/05/2020; Unia, 2020; NOOZO; Inter; Doof Vlaanderen). The organisation Unia (2020), for example, expressed that this specific target group felt that it was largely overlooked since the beginning of the COVID-19 pandemic. In their survey (Unia, 07/2020), 66 out of 502 respondents with disabilities reported a lack of access to information about COVID-19 as one of the most prominent difficulties they faced during the COVID-19 pandemic. In their policy recommendation, Unia specifies that the government paid insufficient attention to people with disabilities when communicating about the COVID-19 measures, specifying that the government did not consult with experts by experience or intermediary organisations in the process and also did not adapt the crisis communication to make it accessible for the group. Unia therefore recommends that the government creates a **designated 'user group'**, which can quickly give feedback on the accessibility of the crisis communication the government produces and disseminates. In their report 'COVID-19 en kansen voor de toekomst: Advies op eigen initiatief aan de Vlaamse regering' (15/07/2020), the organisation NOOZO expresses a request similar to Unia's. NOOZO ("Niets Over Ons Zonder Ons"; in English: "Nothing about Us without Us") concludes its report with a policy recommendation saying that the government should create a crisis communication plan that takes people with disabilities fully into account, not only with regard to the end products of the communication plan

but also in the process of developing them, by **consulting** people with disabilities about accessible communication that meets their needs.

DIGITAL DIVIDE

Aside from the reported lack of attention for and inclusion of people with disabilities, the **digital divide** is another theme that takes a prominent place in the advisory board's reports (NOOZO; Unia; Inter; Kortom vzw; VRT). This issue was also touched upon briefly in the section about the channels through which people with low literacy skills gain access to COVID-19-related communication, and in the survey results in which the respondents in the survey also mentioned it. However, it is important to note that people with sensory impairment are also at times part of the group with little to no access to the Internet, and therefore also fall victim to the same detrimental consequences of the digital divide. NOOZO explicitly addresses the issue by reminding the government that, although our current society is embracing digitalization more and more, there is still a large number of people with little to no access to the Internet (or who are digitally illiterate), who are thus unable to access COVID-19-related information presented online. This would not be such an issue if the communication about COVID-19 would be disseminated equally as much through **online and offline channels**. However, since this is not the case (Steunpunt, 20/07/2020), the government indirectly and inadvertently allows for the digital divide to further perpetuate **information inequality**. In other words, the digital divide will not disappear soon, which is why the government should commit oneself to communicate through as many channels as possible, both offline and online, especially in the event of a crisis such as the COVID-19 pandemic. NOOZO and Inter both stress the significance of **offline communication**, suggesting that official and important information should always be sent through **post** as well as or distributed on **posters** and **leaflets** at **public places**, such as supermarkets and post offices. Inter adds that offering the option of **telephone communication** is also an integral part of providing accessible offline communication.

WEB ACCESSIBILITY ACCORDING TO WCAG 2.0 LEVEL AA

The recommendation of catering to the needs of people with little to no Internet access and thus providing more offline communication material on COVID-19, does not imply that online communication should be disregarded. On the contrary, **the Internet** has played an undeniably important role in supplying information about COVID-19 to all groups of society. However, when distributing crisis communication online, the government is reported to fail to make it accessible for people with sensory impairment, in particular people with visual impairment (Steunpunt, 20/07/2020). For example, AnySurfer assessed the accessibility of the website www.info-coronavirus.be and found that some of the communication material on the website, such as the videos in VGT, are inaccessible for people with visual impairment. For this reason, Steunpunt argues that quality assessment for measuring the accessibility of the government's COVID-19 communication material should form an integral part of the government's communication strategy. The reports by Unia and Inter both mention the **European Web Content Accessibility Guidelines** (WCAG) in this respect, and point out that all official government and media websites

should adhere to the WCAG 2.0 AA level of compliance. To meet WCAG 2.0 Level AA conformance, AnySurfer states³⁷ that websites are required to at least:

- provide (live) captions for videos;
- provide audio description for videos that are otherwise incomprehensible;
- ensure a sufficiently large contrast ratio;
- enable users to enlarge the text without sacrificing the full content overview;
- refrain from using images of text;
- ensure the page can be found and consulted in a variety of ways;
- use headings and labels that are descriptive and accurate;
- provide visible keyboard focus;
- if part of the text is written in a foreign language, indicate this in the source code;
- ensure that navigation elements are consistent and in the same relative order throughout the website;
- ensure that components with the same functionality are consistently identified throughout the website;
- use text alternatives for images that convey meaning.

Unia, POD MI and Steunpunt state that the website www.info-coronavirus.be chiefly fails to comply to the specific WCAG requirements meant to benefit people with visual impairment.

EASY LANGUAGE

Another accessibility measure that has already been mentioned as instrumental for people with low literacy skills and foreign-language speakers, is **Easy Language**. The majority of the reports concerning accessible COVID-19 crisis communication for people with sensory impairment stress the importance of Easy Language in crisis communication (NOOZO; Inter; Unia; POD MI). Once again, this proves that Easy Language can benefit a much larger part of the population than one initially might think. To demonstrate, Unia says that a large number of people with disabilities report that the information about the COVID-19 measures was unclear and inaccessible, causing **confusion and incomprehension**. Unia suggests that the government provides scientific information that is easy to understand for everyone and that protection measures should be explained in Easy Language and by means of examples.

³⁷ See [https://www.anysurfer.be/nl/blog/detail/anysurfer-wcag-de-europese-richtlijn-en-de-belgische-wet#:~:text=WCAG%20\(Web%20Content%20Accessibility%20Guidelines,te%20maken%20voor%20alle%20gebruikers.&text=WCAG%202.0%20is%20sinds%202008,het%20W3C%20sinds%20juni%202018\)](https://www.anysurfer.be/nl/blog/detail/anysurfer-wcag-de-europese-richtlijn-en-de-belgische-wet#:~:text=WCAG%20(Web%20Content%20Accessibility%20Guidelines,te%20maken%20voor%20alle%20gebruikers.&text=WCAG%202.0%20is%20sinds%202008,het%20W3C%20sinds%20juni%202018))

1.4.3.2 PEOPLE WITH VISUAL IMPAIRMENT

A. FORM

AUDITORY COMMUNICATION

In order to make information accessible to people with visual impairment, Inter states that government communication should not only rely on visual elements for increasing accessibility, as is often the case, but also on **auditory communication material**. POD MI adds that the combination of visual and auditory information should be applied to both online and offline communication, so that people with visual impairment have access to the same information as everybody else when they are in public. The survey conducted by Unia indicates that people with visual impairment feel neglected when it comes to communication in public places, because public communication campaigns often only consists of posters and leaflets unreadable to them.

In addition to using separate audio messages, Inter also suggests providing **spoken descriptions** of visual information, and if necessary, **audio description** for videos.

TEXTUAL INFORMATION

When communicating through written text, the principles of **Easy Language** apply. For people who are visually impaired but not totally blind, the font size of the text and the contrast between the text and the background play an important role. Regarding printed communication material, Inter advises to respect the ratio between the font size and the distance from which the text should be readable. The organisation recommends using letters of at least two centimetres and preferably three centimetres high when the reading distance is one metre. This corresponds to a **ratio of 1 in 50**. To be readable at ten metres, text must be at least twenty to thirty centimetres high. Furthermore, Inter recommends to opt for a **sans-serif font** and to avoid **cursive text**. With regard to contrast, choosing **contrasting colours** and an **even background** are advisable.

TEXT-TO-SPEECH AND IMAGE DESCRIPTION

When using images or other visual content in online communication material, Unia recommends that they should always be accompanied by an **image description**, i.e. a detailed written explanation of the image content, especially if they contain relevant information. Without an image description, text-to-speech readers can only detect and inform people with visual impairment that the text contains an image. With an image description, on the other hand, the text-to-speech reader can tell people with visual impairment exactly what the image displays. In addition to image descriptions, Unia suggests another digital accessibility measure, which is using **clear headings and subheadings** so that people with visual impairment can navigate the page or document more easily.

B. CHANNEL

WORD VS. PDF

Regarding the choice for a Word or PDF file to distribute communication online, Unia points out that PDF files do not always comply with text-to-speech software and that using **Word files** is thus a more accessible option.

WEB ACCESSIBILITY

As previously said, offline communication is often not accessible to people with visual impairment as it is not available in an auditory form (Unia survey). However, the accessibility of **online communication** is also reported to oftentimes fall short. Many of the reports address accessibility issues on the federal website www.info-coronavirus.be (POD MI; Unia; Steunpunt), but what makes matters worse, is that these issues are less prevalent for people with hearing impairment than for people with visual impairment. For example, Steunpunt mentions that the government does provide videos in VGT on their website www.info-coronavirus.be for people who are Deaf, but fails to make this information accessible to people with visual impairment. As indicated in the introduction of this chapter on sensory barriers, the reports by Unia and Inter both point out that the government should comply to the European Web Content Accessibility Guidelines (WCAG). In other words, if the online crisis communication of the government adheres to the WCAG 2.0 AA level of compliance, the risk at information exclusion for people with visual impairment will reduce significantly.

1.4.3.3 PEOPLE WITH HEARING IMPAIRMENT

According to the survey Doof Vlaanderen conducted to measure the impact of COVID-19 on the lives of VGT-speakers, ‘difficult access to information’ and ‘unclear communication’ were, respectively, reported as the fourth (18.71%) and fifth (9.36%) most suffered from consequences by the respondents. In addition, in response to a question about the videos in VGT on the federal website www.info-coronavirus.be, more than half of the respondents (55.28 %) report that this offer is not sufficient to cater for the communication needs of people who are Deaf in times of a crisis, such as the COVID-19 pandemic. A large majority of the respondents (87.58 %) also reported that their respective cities or municipalities do not offer information about COVID-19 in VGT. The answers of the respondents show that there is **still room for improvement** concerning the accessibility of the government’s crisis communication for people with hearing impairment.

A. FORM

SIGN LANGUAGE

The reports and documents we received from the advisory board all point out that, when it comes to the form of the message, it is of uttermost importance that all official communication and other important COVID-19-related information the government distributes should also be available in **Flemish Sign Language** (Dutch: Vlaamse Gebarentaal, VGT) for people who are Deaf (Unia; Inter; Doof Vlaanderen; NOOZO; POD MI). This is already the case for the press conferences held by the government, but many organisations request that VGT is provided during **all informative broadcasts**. The survey conducted by Doof Vlaanderen shows that 73.29 percent

of the Deaf respondents watch the press conferences in VGT, which proves the significance of VGT during informative broadcasts. Besides VGT in videos, NOOZO recommends the government to provide **sign language interpreters** for Deaf people who wish to make an appeal on telephone information services. With regard to the press conferences broadcast on television, Unia adds that the hands of the sign language interpreter are sometimes blocked by lower thirds, i.e. titles at the bottom of the screen, which hinders people from perceiving and understanding the message.

SUBTITLES

In addition to sign language, **subtitles** are another crucial accessibility instrument for this target group (NOOZO; Inter; Unia; POD MI; Doof Vlaanderen), especially for people with hearing impairment but do not speak VGT. The organisations all stress that official communication, such as press conferences, and other relevant communication about COVID-19 measures or vaccination for example should always be subtitled intralingually (i.e. from spoken Dutch to written Dutch). In their most recent report on media accessibility, NOOZO heightens this demand and calls for the availability of **personalised subtitles** (04/2021). Currently, this is not the case. Although press conferences are made accessible for VGT-speakers through sign language interpreters, live subtitles are not at hand (nor added later), making them inaccessible to a large number of people in the target group, causing them to miss out on important and up-to-date information.

VISUAL ELEMENTS

Providing information visually through **photographs** and **pictograms** is a great accessibility measure for people with hearing impairment as well. Earlier, the use of visual elements were discussed extensively in light of communication to people with low literacy skills. The recommendations regarding images mentioned in that section are the same for people with hearing impairment. Inter and NOOZO particularly recommend using **pictograms with a universal meaning** that **support the content of the text** at hand.

B. CHANNEL

Regarding accessible communication channels for people with hearing impairment, the reports both indicate that **offline and online channels** are useful. However, with regard to improving the COVID-19 crisis communication, some recommendations are proposed. Firstly, Inter and Unia (2020) regret that information numbers can only be reached by telephone, and argue in favour of a **chat function**, such as text message or WhatsApp, so that people with hearing impairment can also collect information through this channel. Secondly, Unia recommends extending the availability of the **distance sign language interpreting service** to a **24/7 service**. Lastly, Doof Vlaanderen highlights that **videos in VGT** must be made available on all the websites of the federal and local authorities in addition to other relevant websites. The organisation also notes that providing the video with a **QR code** enables people with hearing impairment to easily consult the video on their smartphone instead of their computer.

1.4.4 ACCESSIBLE COMMUNICATION FOR ALL

Having discussed the specific accessibility barriers and measures for ethnic-cultural minorities, linguistic minorities, people with a low socioeconomic status, people with low literacy skills, and people with sensory impairment in the sections above, it is clear that some target groups require **tailor-made, additional communication efforts** from the government in order to ensure equal access to information. However, based on the information in the reports we have received from our stakeholders prove that there are some general measures which improve the **accessibility of communication for all**.

IPSOS concludes its report for the City of Antwerp with a list of accessibility measures that constitute **an ideal mix communication** efforts for all target groups, i.e. native speakers of Dutch with and without a migration background, foreign-language speakers who are literate, and native speakers of Dutch with low literacy:

- provide texts in Easy Language, which includes:
 - using short sentences of maximum ten to thirteen words;
 - using everyday colloquial language and simple, basic words
 - avoiding figurative language;
 - structuring the text in a distinct and logical manner;
 - indicating what the communication is about by using clear headings;
 - avoiding background information and abstract messages
 - using a clean and simple layout;
 - put important words in bold and avoid cursive, underlined or fully capitalised text;
 - opting for a sufficiently large font size and wide line spacing;
 - clearly convey who is the sender of the message, by using a recognisable logo for example;
- use a variety of communication forms (audio and video) and channels (print and digital) to capture attention and interest;
- provide translated versions of government communication;
- use images such as pictograms and photographs to support verbal communication (written and spoken text);
- provide an URL link for online communication and a QR code for offline communication
- communicate through audio and video messages no longer than 60 to 90 seconds.

Other reports from advisory board organisations (Kortom vzw; VRT; NOOZO, 30/03/2020; Steunpunt, 09/12/2020) also emphasise the relevance of an **accessible communication strategy for the population at large**. The accessible communication strategy these organisations refer to usually allocates a prominent place for the following accessibility guidelines: providing information in Easy Language; combining textual, visual and auditory information; and using a variety of different (online and offline) communication channels.

During the first weeks of the pandemic, civil society organisations gradually started to apply some of **the best practices** mentioned above to COVID-19-related communication (Kortom vzw). Frontrunners in this respect were **Wablieft**, **Vocvo** and the **Centres for Basic Education** (Ligo), who pooled their expertise on low literacy and developed free communication material about COVID-19 in Easy Language. Kortom vzw stresses that these initiatives are extremely valuable and have proven their effectiveness, yet the organisation makes an important point when saying that the government should actually **incorporate Easy Language** into their communication strategy **from the very start** instead of waiting for organisations like Wablieft to develop the materials. To

demonstrate this, Kortom vzw refers to the Dutch government's approach when addressing the public: when Prime Minister Rutte held a speech on October 13th (at the start of the second COVID-19 wave in The Netherlands), his speech was simultaneously translated into Easy Language and made available on a separate webpage of the federal government. According to Kortom vzw, the Belgian federal government should strive to adopt a similar accessible communication approach.

In addition to these general recommendations for improving the accessibility of the government's crisis communication for all groups in society, two other themes regarding this subject also repeatedly made an appearance in the reports we received. These themes are discussed in the two sections that follow.

1.4.5 INVOLVE TARGET GROUPS IN THE PROCESS

The first theme often discussed in the reports is the **lack of collaboration with the target groups** for which the government is trying to make their communication materials accessible. POD MI (02/01/2021), for example, states that it is of crucial importance to **involve experts-by-experience** in the communication development process in order to appeal to the target group and to avoid stigmatisation, as the experts-by-experience can help to draw up communication material adapted to the needs of the target group. Steunpunt (01/12/2021) call for an organised cooperation between the communication services of the different governments and the target group stakeholders, so that low-threshold and tailor-made communication can be ensured and the different population groups can be reached effectively. To this end, Steunpunt argues that the government should include intermediary organisations and experts-by-experience in the unit 'Social Debate and Communication' (Dutch: cel 'Maatschappelijk debat en communicatie'). In a different report (06/07/2021), Steunpunt also notes that the socio-cultural organisations that represent people with a low socioeconomic status, people with a migrant background, people with disabilities, etc. should be also be invited by the press and communication department of the (Flemish) government for **emergency consultations** in order to develop an effective communication strategy in times of crisis.

1.4.6 THE GOVERNMENT AS A MAIN FACILITATOR

The second recurrent theme in the reports was the demand that the federal government – as well as the local authorities – take on **the role of communication facilitator to third parties**, rather than just disseminating information about COVID-19 directly to the public themselves.

The research report by the City of Antwerp carried out by IPSOS stated this as an explicit outcome of their research, saying that the city should facilitate COVID-19 communication and provide third parties, such as **civil society organisations** and **non-profit organisations**, with accessible and qualitative communication material and offer them sufficient opportunities to distribute these materials through a variety of channels and forms to reach the target groups of their organisations.

Other reports which also mention the need for centralised communication from local authorities are POD MI and Kortom vzw. These organisations are dissatisfied about the **scatteredness** of the existing COVID-19 communication material, as this makes it quite difficult to keep an overview of the communication initiatives that are currently out there. POD MI (02/01/2021), for example, shares this concern and encourages the federal and local authorities to align their communication services with the different stakeholders in function of accessible and targeted

communication, so that crucial information about COVID-19 reaches different population groups more easily.

The report of Kortom vzw connects this problem to the **institutional allotment of Belgium**, saying that, because of the complex governmental division, the communication in Belgium is extremely fragmented, unclear, and open for interpretation. The survey results in their report show that 80 percent of the respondents experience the need for a central civil service that develops accessible, ready-made communication material, so that intermediary organisations do not have to develop these materials themselves, especially since the COVID-19 pandemic calls for prompt and accurate communication to the public. In this respect, Kortom vzw offers four recommendations to the government, saying that they should:

- work out a centrally organised communication strategy, accompanied by a strong focus on promotion, education and coaching of frontline workers and intermediaries;
- establish one central institution appointed with only one task, which is rapidly preparing, developing and disseminating high-quality information and communication material;
- involve local authorities early on and more intensively when preparing and deciding on an inclusive communication strategy, as local authorities are closer to citizens than the federal government;
- set up a single central platform that offers qualitative, ready-made communication content (text and visual material) to local authorities, companies and organisations in times of crisis, such as the COVID-19 pandemic.

1.5 SUMMARY OF KEY FINDINGS FROM SURVEY AND REPORTS

To recapitulate, the main goal of this research project is to develop an inclusive crisis communication strategy based on three kinds of evidence: scientific evidence, practice-based evidence, and user-based evidence. This report provided an overview of the gathered practice-based evidence for Flanders. By means of a survey and a thematic analysis of documents obtained from a selection of the project's advisory board members, the report identified and analysed persistent barriers to COVID-19 communication in Flanders experienced by ethnic-cultural, socioeconomic and linguistic minorities, as well as people with sensory impairment and reported on by organisations. In this chapter, initial conclusions from both the survey responses and the collected reports are briefly summarised.

1.5.1 SURVEY

The survey was designed to ascertain how the accessibility of the government's COVID-19 communication strategy was received and evaluated by the stakeholders in the advisory board. 34 organisations participated in the survey. The section that follows is a brief description of the most significant trends in their responses.

With regard to the existing inclusive communication initiatives developed and distributed by the federal government, the survey responses show that most organisations are **aware** of them (68%) and that a vast majority of respondents (91%) had also made use of and disseminated these communication products supplied by the federal government. However, when asked to specify whether their organisations used these products in the exact same form as provided by the federal government, 51 percent responded that they made changes to the products in order to fit the needs of their target groups better.

When looking at the respondents' degree of **satisfaction** concerning the accessibility of the form of the communication products and the channels through which the government distributed them, the respondents' answers were mixed, yet the general trend indicated that the organisations were mostly neutral, satisfied or unsatisfied (in that order). Next to no organisations stated that they were 'very unsatisfied' or 'very satisfied'.

Concerning the barriers to access the government's COVID-19 communication, the following issues were mentioned most often per target group:

- **foreign-language speakers:** unclear and difficult-to-understand language, too little availability of translations in foreign languages, and too much textual information, political reluctance to provide translations on posters and leaflets in public, absence of multilingual operators and contact persons reachable through info numbers;
- **people with low literacy skills:** unclear and difficult-to-understand language, too much textual information, lack of (unambiguous) visual communication and digital illiteracy in combination with too much online communication;
- **people with visual impairment:** inaccessibility of the website www.info-coronavirus.be, lack of audio-described videos, PDFs incompatible with text-to-speech software, digital illiteracy in combination with too much online communication;
- **people with hearing impairment:** insufficient subtitled and VGT communication (on television), delayed dissemination of subtitled and VGT, lack of introductory video in VGT or VGT-pictogram on the landing page of the website www.info-coronavirus.be.

In addition, the survey results indicated barriers relevant to the **general population** as well, such as the scatteredness of COVID-19-related communication products across the different communication channels of the different authorities on a federal, regional and municipal level respectively and on the website www.info-coronavirus.be itself as well as the lack of communication through alternative communication channels, such as advertisements, personal communication through intermediaries and social media channels of influencers.

The survey revealed that, arguably in part because of these barriers in the federal government's COVID-19 crisis communication, as much as 91 percent of the organisations undertook **initiatives** themselves to address or solve these barriers. This was done in various ways, such as developing inclusive communication products, reporting the barriers to the federal government, writing guidelines and policy recommendations, carrying out internal evaluations, etc.

In summary, the results from the survey underline two things: organisations do use the products developed by the federal government but the federal government's COVID-19 communication strategy in the past twelve months was not optimally accessible for the target groups topicalised in this report. Especially the respondents' relatively low degree of satisfaction concerning the federal government's inclusive communication efforts and the large share of respondents who reported that their organisations took on own initiatives to bridge this gap are relevant indicators in this respect.

1.5.2 REPORTS

The extensive body of internal evaluations, best practices, policy recommendations and other relevant reports we received from the advisory board members further substantiate the conclusion that the accessibility of the form and channel of public COVID-19 crisis communication can be and should be further improved, especially in light of the specific needs of groups vulnerable to information exclusion, and given the fact that civil society organisations,

user representative organisations and governmental organisations took matters also into their own hands in order to ensure that these groups had equal access to COVID-19-related communication. What follows is an overview of the main accessibility recommendations per target group drawn from the advisory board documents which are in line with and/or complementary to the recommendations outlined in the survey results.

The documents which discussed the barriers to COVID-19 communication for **people with low literacy skills** all foreground that the use of Easy Language, visual elements and audio messages in crisis communication are crucial instruments to tackle barriers related to the form of the communication products. Regarding the channels through which crisis communication is distributed, the documents point out the importance of personal communication – especially through trustworthy individuals, such as general practitioners – and posters and video communication in public places, such as the bus or train station. Traditional and social media can also be effective in communicating with this group, for example, to disseminate information through video messages from role models and influencers. However, caution is necessary, as people with low literacy skills often do not have the financial means to afford cable television or an Internet connection.

For **foreign-language speakers**, the documents mainly highlight the importance of qualitative translations in a variety of forms, i.e. audio messages, video messages and written text, which allows for dissemination through an equally varied set of channels. With regard to audio messages, it was noted that they best not exceed 60 seconds in length and should be delivered in a slow pace with a clear and easy-to-follow message. With regard to video messages, it is important that subtitles are provided and that the individuals included in videos reflect the superdiverse population of Flanders. The use of Easy Language accompanied by visual elements which support the text is also helpful for this target group. Concerning communication channels, the documents show that a mix of online communication and personal communication proves to be most effective for the group of foreign-language speakers. Online communication, especially WhatsApp, Facebook and Instagram are popular sources of information for this group. Personal communication is especially important in the sense that Dutch-speaking family members of this group can have an important intermediary function, as they are perceived as a trusted source of information. For this reason, it is important to also take into account the communication needs and preferences of people with a migration background who might pass on the information to foreign-speaking family members and friends.

According to the documents concerning **people with sensory impairment**, and **people with disabilities** in general, this group reported to have mainly suffered from barriers relating to a lack of awareness and inclusion. As a solution, the documents suggest that the government creates a designated group of experts-by-experience, which can be consulted in case crisis communication products need to be developed in the short term. Next to this barrier, the documents point out the digital barrier, both in terms of the end user and the provider of the online communication. In case of the former, there is a barrier because people with sensory impairment often have little to no access to the Internet (for example, due to socioeconomic status and/or lack of digital literacy), which implies online government communication about COVID-19 does not necessarily reach this group optimally. In case of the latter, there is a barrier reported in the documents due to the current form of the official website www.info-coronavirus.be which does not fully comply to the European Web Content Accessibility Guidelines yet. Lastly, the significance of Easy Language

for accessible communication is mentioned in most of the documents concerning people with sensory impairment as well.

The documents in regard to specific barriers for **people with visual impairment** stress the importance of auditory communication in the form of audio messages, spoken descriptions of visual information and audio description for videos. In addition, textual and visual information online should be made in such a way that they can be read out loud with text-to-speech (TTS) software. For photographs, this means that a detailed written explanation of the image content (i.e. image description) should be provided. For people who are visually impaired but not totally blind, it is important that maximum perceptibility of the textual information is provided for, i.e. a large enough font size of the text and contrast between the background and the text. With regard to communication channels, the documents state that Word files are often more accessible than PDFs as the latter sometimes do not comply with TTS software. In addition, the accessibility of the website www.info-coronavirus.be is reported to not be up to par, in particular for people with visual impairment.

For **people with hearing impairment**, Flemish sign language (VGT), subtitles and visual elements are three crucial constituents of accessible crisis communication. Concerning the channels through which crisis communication is distributed, both offline and online channels are reported as useful. Recommendations in this respect entail providing a chat function for reaching information numbers; providing a 24/7 distance sign language interpreting service; making videos in VGT available on other (government) websites; and providing these videos with a QR code enabling Deaf people to consult them on their smartphone.

1.5.3 GENERAL RECOMMENDATIONS

Taken together, the results from the survey and the reports allow us to propose a set of **general recommendations to improve the accessibility** of the federal government's COVID-19 communication strategy and products for the specific target groups, as well as for the entire population.

First and foremost, using **Easy Language** is of uttermost importance when communicating about urgent crisis situations such as the COVID-19 pandemic. Across all target groups and both in the surveys and in the reports, the use of Easy Language was mentioned most often as a solution for removing barriers to crisis communication. In addition to this, the large amount of information and the lack of separation between main and secondary issues are also a general point of attention.

In order to reach all groups of citizens and ensure they all have access to crisis communication equally, the provision of **a mix of communication products in various forms and through different channels** can contribute to optimise the spread of information. This includes communication forms such as audio messages, video messages, posters, infographics and advertisements, made available through printed media, traditional and social media, and personal communication. In addition to this, the survey responses and the documents both pointed out that it is important to **incorporate accessibility as a point of attention as early on in the crisis communication development process as possible**.

The results also pointed out that the lack of **collaboration** in the current crisis communication strategy with the actual target groups themselves for which the government is trying to make their communication products accessible should be remedied. In order to make accessible, non-

stigmatising and appealing communication products, it is of crucial importance to **involve experts-by-experience** in the communication development process.

Another observation which frequently surfaced in the results, is the **scatteredness** of the existing COVID-19 communication material. Especially because the COVID-19 pandemic calls for prompt and accurate communication to the public, this scatteredness can form a huge barrier to accessible communication. Instead, the federal and local authorities should strive to align their communication services as much as possible with the different stakeholders in function of accessible and targeted communication, so that crucial information about COVID-19 can reach different population groups more easily. In other words, there is much more potential for the **federal government to step in as a main facilitator of accessible information to third parties** by establishing one central institution appointed with the task of developing and distributing high-quality, accessible crisis communication products to one central platform.

In addition to these recommendations, an insightful observation relevant to the accessibility of COVID-19 crisis communication emerged in this report: the **digital divide** in Flanders, which poses a serious issue for people already vulnerable to information exclusion (such as people with low literacy skills and people with sensory impairment) also significantly impacts on the accessibility of COVID-19 crisis communication. The results show that these groups oftentimes have little to no access to the Internet and/or digital skills, and as the federal government distributes its COVID-19 communication to a large extent through online channels, these groups run the risk of missing a lot of important information. Therefore, in order to minimise the consequences of this digital divide, it is of crucial importance that crisis communication is disseminated equally through offline as online channels.

2 INPUT FROM KEY STAKEHOLDERS IN BRUSSELS AND WALLONIA: SURVEY AND SYNTHESIS OF REPORTS, WEBSITES AND MEETINGS WITH INTERMEDIARIES

2.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Brussels and Wallonia by UCLouvain to gather **already existing knowledge, expertise and evidence** on inclusive COVID-19 crisis communication. In this part of the study, a number of organisations based in Brussels and/or Wallonia, including members of an *ad hoc* advisory board for Brussels and Wallonia, were consulted for input and expertise. In this report, the results of this consultation is synthesised. Concretely, this consultation entailed participation in a web-based **survey and/or virtual meetings**, as well as the **provision of existing communication material in relation to COVID-19** crisis communication the consulted organisations have carried out since the beginning of the COVID-19 pandemic outbreak in Belgium. In addition to the material shared by the participating organisations, the UCLouvain research team systematically screened the websites of all the organisations that had been invited to participate, to identify all possible relevant communication material, that was created or adapted to better meet the needs of the groups of vulnerable people targeted by the research project.

In what follows, the results of a **survey** are summarised and presented alongside a **synthesis** of virtual meetings with advisory board organisations. Building on this qualitative evidence, this report identifies **persistent barriers** for the project's target groups related to the form and channels of inclusive crisis communication in the specific context of the COVID-19 pandemic in Flanders.

In what follows, the results of the web-based **survey** and the meetings are summarised and presented alongside a **synthesis** of the materials provided by the participating organisations or identified on relevant websites. Building on this qualitative evidence, this report identifies **persistent barriers** for the project's target groups related to the form and channels of inclusive crisis communication in the specific context of the COVID-19 pandemic in Brussels and Wallonia.

In **Section 2.2**, the methodological background of the survey and synthesis of existing material is specified. This is followed by an overview of the survey results in **Section 2.3** with a focus on the regional and linguistic functioning of the organisations which participated in the survey, the specific target audiences they cater to and their use, degree of satisfaction and evaluation of existing COVID-19 crisis communication materials provided by the federal government. The data gathered during the meetings with some specific organisations is also presented in this chapter. **Section 2.4** presents an overview and discussion of the main adaptations made by different organisations, in terms of forms and channels of communication materials best suited for specific types of end-user and target groups in Brussels and Wallonia, and a selection of the materials the organisations share on their websites. This report finishes with **Section 2.5** in which a summary of the key-findings regarding communication practices adapted to better meet the needs of specific vulnerable groups in Brussels and Wallonia is presented.

This chapter is based on the content of the following project deliverable report:

Le Boulengé, O., Lambert, H., Doumont, D. & Aujoulat, I. *Internal report on practice-based evidence in Brussels and Wallonia. Report on Work Package 2.* 15 May 2021.

Océane Le Boulengé and Hélène Lambert are equal first authors. They set up the data collection tools, identified and listed all relevant organisations, collected and analysed the data, drafted and later finalised the report;

Dominique Doumont participated in the identification of and contact with the participating organisations, made the necessary contacts to set up the advisory board for Brussels and Wallonia, acted as an interface between the different partners of the ICC team for the logistical and scientific aspects, and critically revised the draft report;

Isabelle Aujoulat supervised the work at the different steps, made the necessary contacts to set up the advisory board for Brussels and Wallonia, was responsible for the methods part of the report, critically revised the draft report, and supervised its finalization.

The UCLouvain teams also acknowledges Rachelle Rousseaux, who participated to the screening of the websites of all relevant organisations, to identify innovative adaptations that might not have been made available to the team through the survey and Alaa Mahboub, a computer scientist at UCLouvain, who helped at different stages with the survey on Qualtrics.

2.2 METHODOLOGY

In order to obtain practice-based evidence concerning the accessibility barriers that socioeconomic, linguistic minorities and people with sensory impairment have faced with regard to COVID-19-related government communication, a list of relevant and potentially interested organisations was set up. The organisations of this initial list were pre-selected on the basis of the following criteria: their operational area (i.e. based in Brussels and/or Wallonia), their line of work (i.e. the organisation's mission and objectives) and their target group(s) (i.e. people with sensory impairment; people with low literacy skills; people with a migration background; and/or foreign-language speakers). This resulted in a selection of 147 civil society organisations, user representatives organisations, governmental organisations, which were contacted via email with an extensive explanation of the research project and the question whether or not they would consider participating in the project by either joining the advisory board for Brussels and Wallonia, and/or participating in the survey for the second Work Package, and/or participating in the roundtable discussions and focus group discussions for work-package 3. Out of the 147 organisations that were contacted, **48 organisations** replied positively (of which 48 completed the survey, and as for now 12 accepted to join the advisory board), 8 organisations gave a negative or tentative response, and 91 organisations did not reply to the email nor completed entirely the survey.

2.2.1 VIRTUAL MEETINGS

After receiving the first email, some organisations requested an online meeting or a phone conference with a member of the UCLouvain research team. In addition, some organisations were directly contacted by the team because of their known expertise in the sector of health promotion and communication with vulnerable groups. Hereafter is a list of the 17 organisations

that engaged in individual interviews, some of which accepted to join the advisory board* (“comité d’accompagnement”)³⁸.

- Centres Locaux de Promotion de la Santé* (CLPS of Charleroi, CLPS of the Walloon’s Brabant and the CLPS of Mons)
- Sour’Dimension
- Charleroi Ville Santé*
- Observatoire Santé du Hainaut
- Centre de crise – AviQ*
- Commission communautaire commune (COCOM)*
- Commission communautaire française (COCOF)*
- Cultures & Santé asbl*
- Question Santé asbl*
- Fédération des Maisons Médicales*
- Fédération des Services Sociaux*
- Ligue des Usagers des services de santé (LUSS)*
- Silence, ça marche ! asbl
- EBISU – Pas à pas
- PHARE
- Collectif Accessibilité Wallonie Bruxelles (CAWaB)
- Infosourds
- La Croix Rouge de Belgique
- Pissenlits*

During the virtual meetings, the partner organisations were invited to share their experiences of communicating around Covid-related issues with their more difficult to reach target groups, to complete the survey themselves and/or to further disseminate the link, and to share any relevant document via email. The next steps of the project, i.e. The roundtable discussions of intermediaries and the focus-group discussions with representatives (see PART 4 and 5), were also presented at this stage, to seek to anticipatively engage the various stakeholders.

All discussions were summarised and analysed by the research team. The results of this analysis can be found in Section 2.3 to complement the results of the online survey presented hereafter.

2.2.2 ONLINE SURVEY

An online **survey** was designed to explore how the (accessibility of) the government’s COVID-19 communication strategy was received by the stakeholders. More specifically, the survey assessed:

- whether the respondents were **aware** of accessible COVID-19 communication products developed and distributed by the government;
- how **satisfied** the respondents were with the accessibility of the form of the communication products and the channels through which the government distributed them;

³⁸ A first meeting of the advisory board was held on April 27th, 2021

- which **barriers** to access their target group(s) were experienced with regard to the government's COVID-19 communication; and
- whether their organisations had attempted to **bridge** these barriers by developing complementary communication products and/or writing evaluations or policy recommendations.

A complete roll-out of the survey, as agreed with the UAntwerpen team and designed on Qualtrics, can be consulted in the Appendices to this report (see Appendix I).

The survey was sent to all the organisations (n=147) that had been identified by the research team and with the help of the advisory board, as relevant and potentially interested. In total, 112 organisations initiated the survey, of which **48 organisations** fully completed the questionnaire.

The results of the survey are presented in Section 2.3 of this chapter.

2.2.3 COLLECTION OF MATERIALS AND DOCUMENTS

While completing the survey, the respondents had the possibility to paste any relevant link to some material they had produced (reports, recommendations, communication tools), or to send such documents by email to projet-icc@uclouvain.be.

The research team received such documents from 25 of the 48 participating organisations. In addition, being aware of the short notice³⁹ that did not make it possible for all organisations to participate, the websites of the organisations that had been initially listed as relevant and potentially interested, were screened for any publicly available material that would complement the findings, in terms of innovative products to address the identified barriers (see Appendix H for a list of all consulted websites).

The analysis of the material shared by the participating organisations, or identified on relevant websites, is presented in Section 2.4 of this chapter.

2.2.4 ETHICS

Prior to sending out the survey to the stakeholders, **ethical clearance** was sought for all partners by the coordinating team (Prof. dr. Mieke Vandenbroucke, UAntwerpen) from the Ethics Committee for the Social Sciences and Humanities (EASHW) at the University of Antwerp. In order to receive positive clearance, the following documents were submitted to the EASHW:

- Methodology of the study (version 2, submission date 22/03/2021);
- Information sheet for the participant (version 3, submission date 02/04/2021);
- Consent form for the participant (version 1, submission date 04/03/2021);
- All the diaries or surveys that will be presented to the participants (version 1, submission date 04/03/2021);
- Example of the confidentiality statement for all employees in non-anonymous research (version 1, submission date 04/03/2021).

³⁹ The ICC project had been initially planned to take place in Flanders only. The UCLouvain research team was later invited to join the project for the Brussels and Wallonia regions. When the project started in February 2021, the potential participants in Brussels and Wallonia had yet to be identified and approached.

The activities for Work Package 2 received a final positive clearance on the **2nd of April 2021**. In accordance with the ethics protocol outlined in the EASHW application for these activities, participation in the survey proceeded with **informed consent**.

The UCLouvain Ethics Committee was informed of the project. As this project does not fall under the Law of 2004 regarding Human experimentation, the ethical clearance received from the UAntwerpen ethical committee was deemed sufficient, and no further approval was sought on the French side of the research activities.

2.3 SURVEY AND MEETINGS RESULTS

2.3.1 SURVEY PARTICIPANTS

As described in the methods section, the online questionnaire was filled in by **48 organisations**⁴⁰. These included civil society organisations and government organisations at a regional and municipal level. In addition, some virtual meetings were individually or collectively (advisory board for Brussels and Wallonia) conducted with the representatives of several organisations. This chapter summarises and integrates the results from these two data collection procedures.

2.3.2 REGIONAL ACTIVITY, LANGUAGES AND TARGET AUDIENCES OF THE SURVEY PARTICIPANTS

A total of 48 organisations participated in the survey. This includes civil society organisations and government organisations at regional or municipal level.

In our questionnaire, organisations were asked to specify in which region(s) they operate. They could select more than one answer.

Among the organisations that responded to the questionnaire:

- 45.8% are active in Brussels;
- 6% are active in Flanders;
- 87,5% are active in Wallonia (Figure 56).

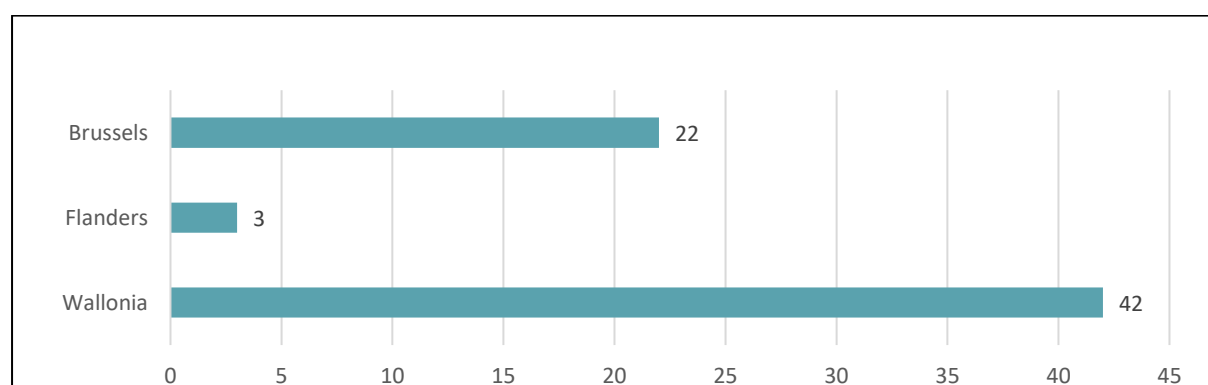


Figure 56 District regional activity of the survey participants.

⁴⁰ In this report, the word organisations is used as a generic term. It includes municipalities, non-profit organisations, foundations, federations and local authorities.

More precisely:

- 26 are active only in Wallonia;
- 13 are active in Brussels and Wallonia;
- 6 are active only in Brussels;
- 3 are active in Brussels, Wallonia and Flanders (Figure 57).

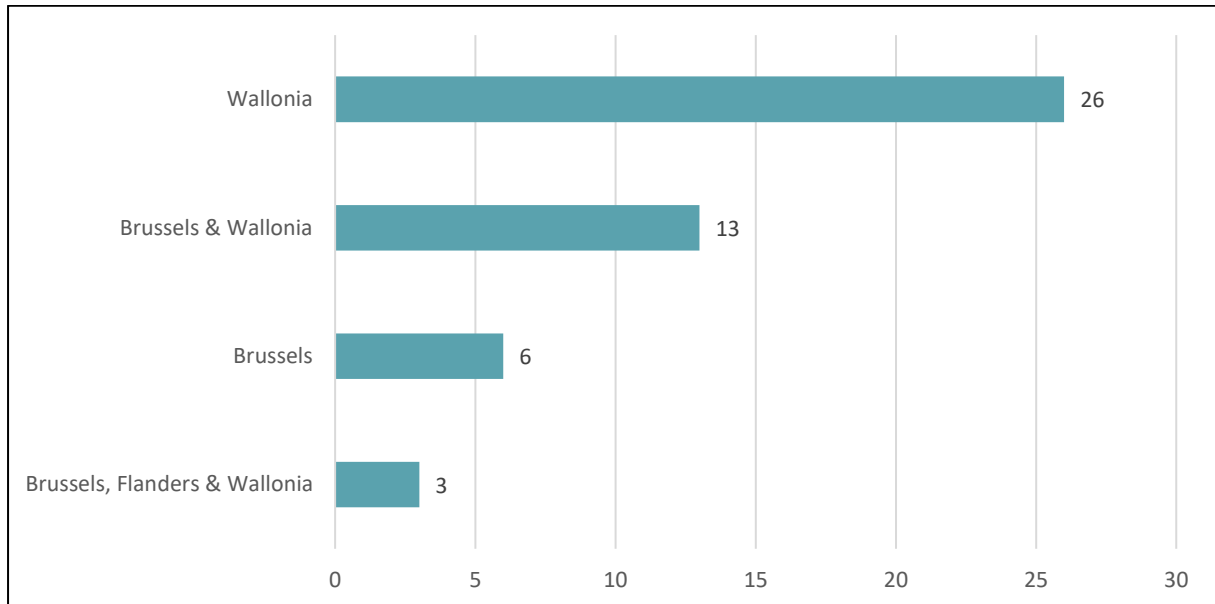


Figure 57 Combined regional activity of the survey participants.

Our respondents were also asked to mention the language(s) in which they provide services. Among them:

- 96% provide services in French;
- 10% provide services in Dutch;
- 12.2% provide services in English;
- 24.4% provide services in other languages (Figure 58).

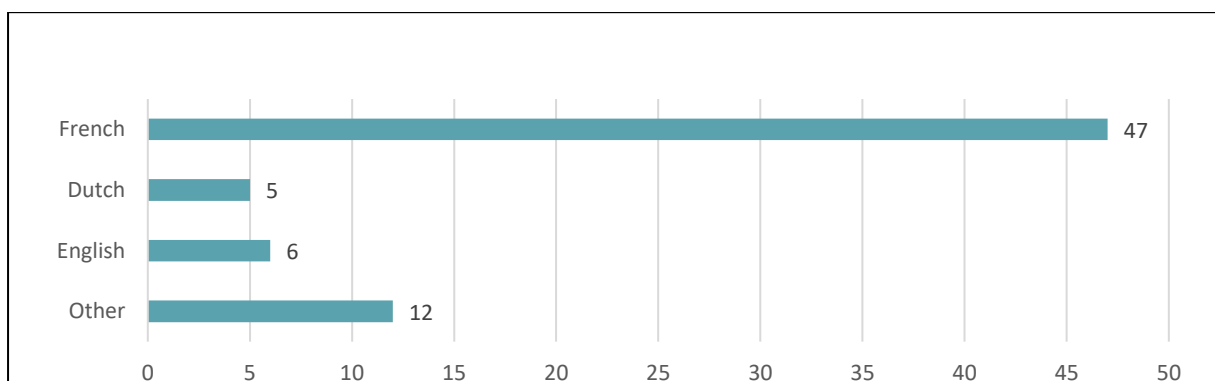


Figure 58 Languages in which the organisations provide support.

More precisely:

- 34 offer services in French only;
- 7 offer services in French and other languages;
- 3 offer services in Dutch, French, English and other languages;
- 2 provide services in Dutch, French and English;
- 1 offers services in English and French;
- 1 only provides services in other languages (Figure 59).

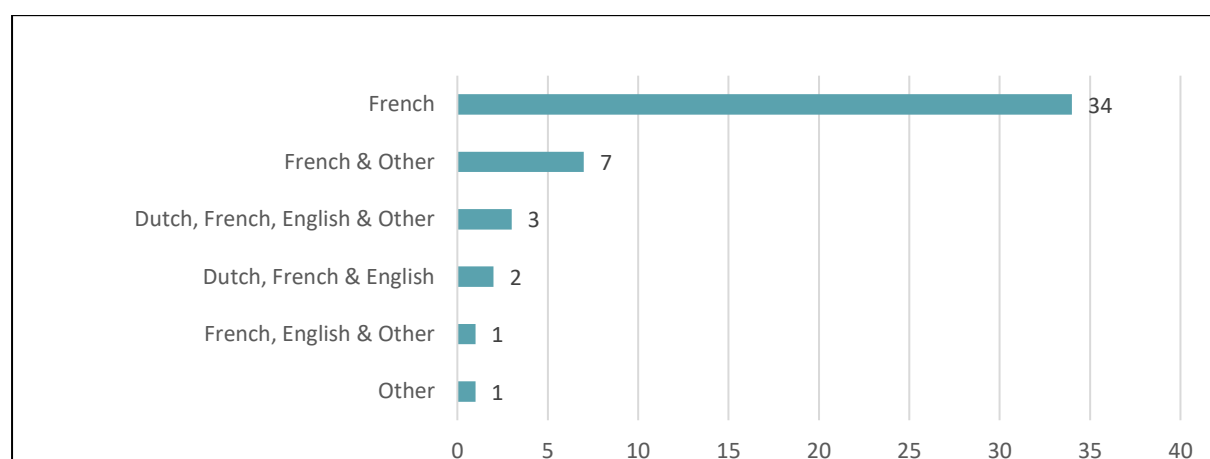


Figure 59 Combined language activities by the survey participants.

Many other languages were listed by the organisations that provide services in other languages than French, Dutch or English:

- 4 organisations mentioned Arabic;
- 4 organisations mentioned Spanish;
- 4 organisations mentioned the sign language of the French speakers in Belgium (LSFB);
- 2 organisations mentioned Bulgarian;
- 2 organisations mentioned Portuguese;
- 2 organisations mentioned 2 Romanian.

The other languages cited were: Hungarian, Albanian, Italian, Russian, Turkish, Lingala and Swahili.

In a multiple-choice question, the respondent organisations were asked which audience(s) they work with. Respondents could check more than one box (as for the previous questions).

Among the organisations surveyed:

- 47.9% with people with low health literacy;
- 41,7% work with people with an immigrant background;
- 39,6 % provide support to native French speakers with low socioeconomic status;
- 35.4 % work with foreign-language speakers from low socioeconomic backgrounds;
- 29,1% provide service to people with hearing impairment;
- 22.9% provide support to people with visual impairment.
- 56,2% work with other audiences (Figure 60).

Figure 61 shows the respective weight of each target group represented in the survey.

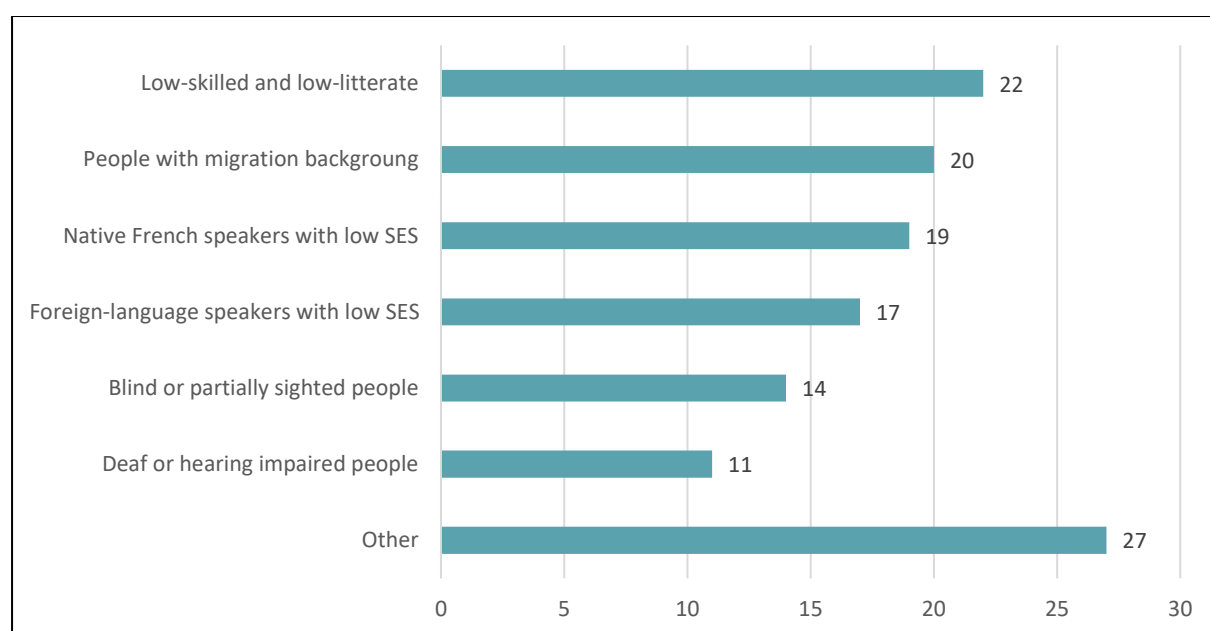


Figure 60 Representation of target audiences among responding organisations

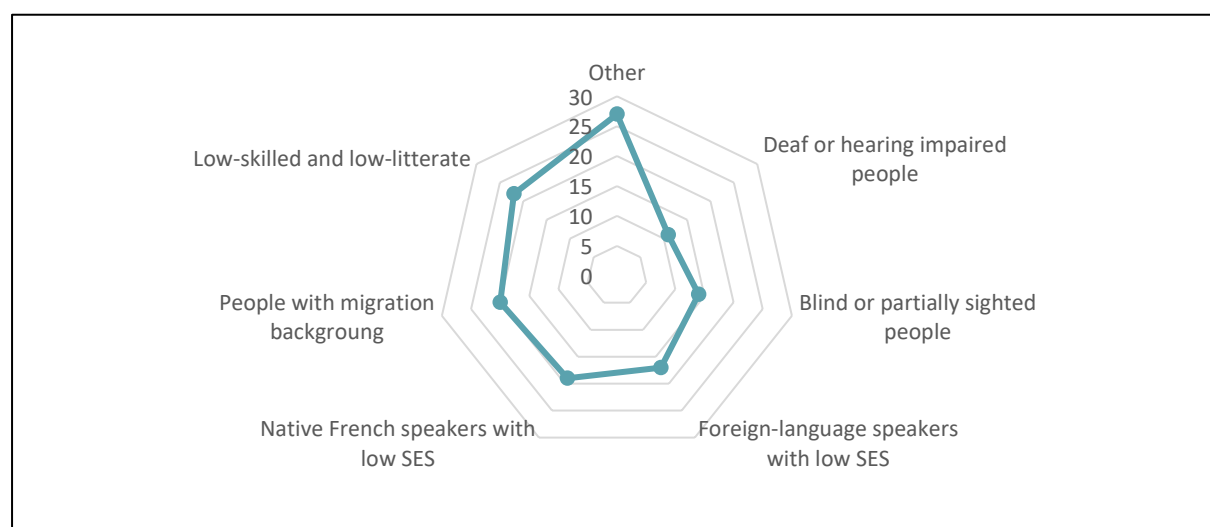


Figure 61 Respective weight of represented target audiences in the survey as mediated by participating organisations.

Of the organisations working with other audiences:

- 7 of them specified working with people with other types of physical or mental disabilities;
- 5 organisations indicated working with specific age groups (children, youth and/or seniors);
- 5 organisations mentioned working with citizens more generally
- 4 organisations indicated working with first line professionals (caregivers, teachers, social workers).

The other audiences that were cited were: the homeless, undocumented migrants, sex workers and people with rare diseases.

2.3.3 KNOWLEDGE AND USE OF INCLUSIVE COMMUNICATION INITIATIVES BY THE PARTICIPANTS

Half of the organisations which participated in the survey had knowledge of the federal government initiatives in terms of communication (see Figure 62).

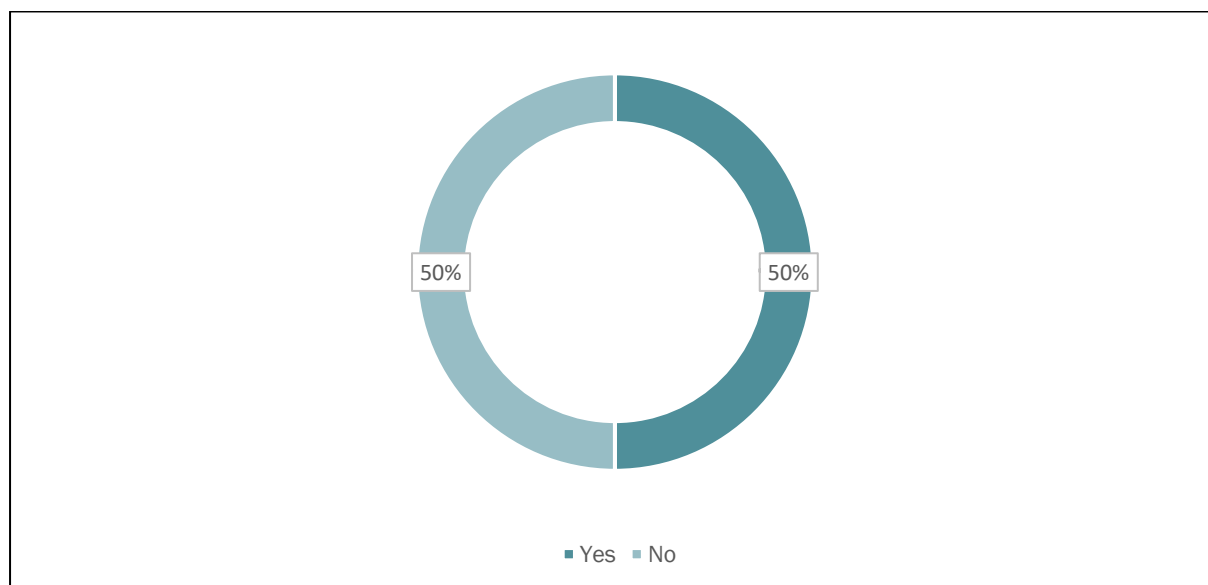


Figure 62 Organisations' awareness of inclusive communication initiatives of the federal government to inform their target audiences.

To the question of knowledge about the government's communication, the possibility for participants to add which ones they had heard of was added. Hereafter are the answers provided by the participant organisations in terms of awareness of actions and communication materials :

At the federal level:

- The federal website dedicated to COVID-19: www.info-coronavirus.be
- The website of the federal health agency – Service Public Fédéral – Santé publique, Sécurité de la chaîne alimentaire et Environnement (SPF Santé publique): <https://www.health.belgium.be/> which posts regular updates about COVID-19

At the regional level :

- The special COVID-19 dedicated website of the Agence pour une Vie de Qualité (AViQ): <https://covid.aviq.be/fr>
- The coronavirus page of the Personne Handicapée Autonomie Recherchée (PHARE) a service for disabled people in Brussels: <https://phare.irisnet.be/coronavirus/>
- The special COVID-19 dedicated website of the Commission Communautaire Française (COCOF): <https://infocorona.net.ccf.brussels/>
- The COVID-19 website created by the Region of Brussels (Cocof): <https://coronavirus.brussels/>
- The website of the SPP Intégration Sociale et Lutte contre la Pauvreté: <https://www.mis.be/fr/outils-cpas/coronavirus-COVID-19>

At the local level:

- The website of the Municipality of Mons which offers information about COVID-19 and vaccination but also advices and social initiatives: <https://www.charleroi.be/coronavirus/>
- The website of the Municipality of Charleroi which offers official information about COVID-19 and the different services offered by the city: <https://www.mons.be/vivre-a-mons/sante/COVID-19>

Some were also aware of **non-governmental** sources:

- The organisation Relais-Signes: <http://www.relais-signes.be/>
- The website <https://www.inclusion-asbl.be/> and specifically the materials they created to inform their public about COVID-19
- The Facebook® page of the organisation L'Épée which provides information about the COVID-19 but also synthesis of the press conferences in Langue des Signes Française de Belgique (LSFB): https://www.facebook.com/L%C3%89p%C3%A9e-asbl-628745667220567/?hc_ref=ARSrrshaxql6Q5iNztrflwZvWF-xgkL3b86mzstlqUgmu5LyW-WZCaargEb4CtoFrNY&fref=nf&_tn_ =kC-R
- The Facebook® page Corona LSFB which offers COVID-19 information for people with hearing impairment: <https://www.facebook.com/coronalsfb/>

The type of **products and materials** the organisations were aware of are listed hereafter:

- Visual communication such as infographic contents (pictograms, etc.)
- Translation of press conferences and concertation counsels in LSFB
- Short videos for social media
- Video messages with LSFB interpretations
- Documents with FALC⁴¹ adaptations
- Television commercials
- Posters and flyers in several languages
- Free hotline to address the concerns about everything related to COVID-19
- Protocols about how to safely reopen certain types of places

2.3.4 EVALUATION OF THE ACCESSIBILITY OF THE FORM OF THE FEDERAL COVID-19 COMMUNICATION

The organisations were asked to rate their level of satisfaction regarding the form of COVID-19-related messages delivered by the federal government on a scale of 1 to 6. The average score obtained was: 3,11.

The respondents were then asked if their target audiences had encountered barriers related to the **form** of the federal government's crisis communication:

- 87,2% of them considered that their publics had encountered specific barriers;
- 12.8% judged that their target groups had not experienced specific obstacles related to the form of the communication (Figure 63).

⁴¹ FALC = Facile à Lire et Comprendre (easy to read and understand)

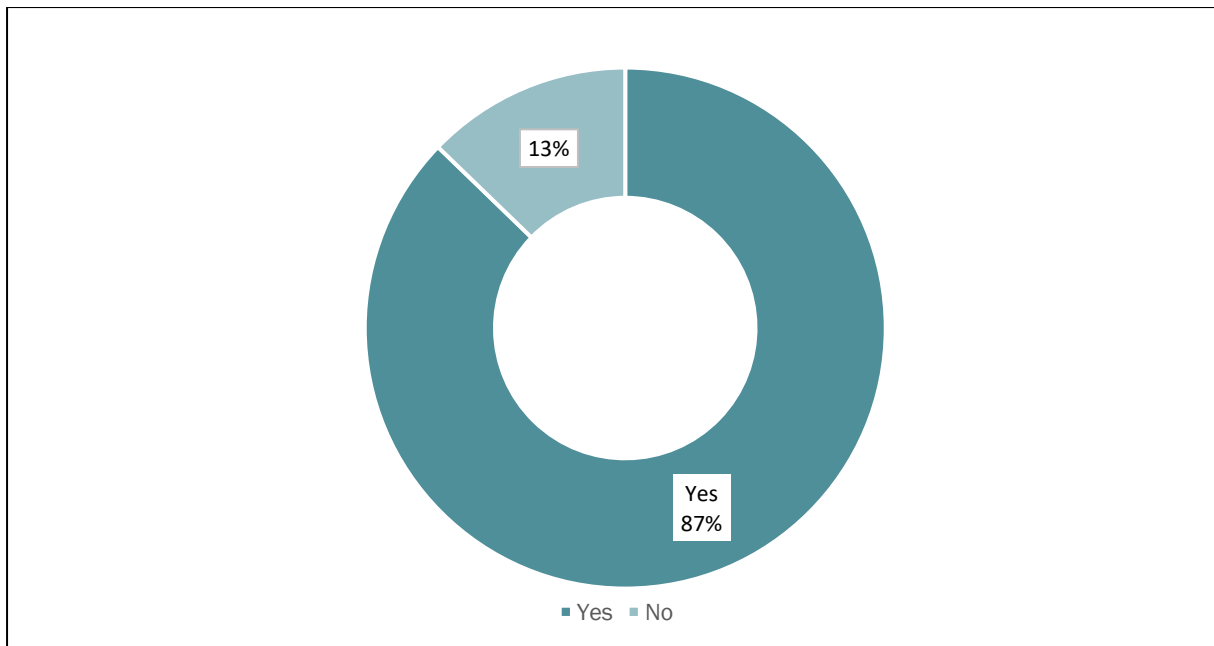


Figure 63 Experiences of barriers/problems regarding the accessibility of the form of the COVID-19 communication by the federal government.

The organisations were also asked how they had discovered that the groups were facing barriers:

- 40,9 % said that they had themselves become aware of these barriers through their professional practice;
- 34,85 % said that these obstacles were reported by their target groups to their organisation;
- 24,24% checked the "other" box, for example:
- through investigation by proactive contact with those groups;
- through contact with other professionals that reported difficulties (Figure 64).

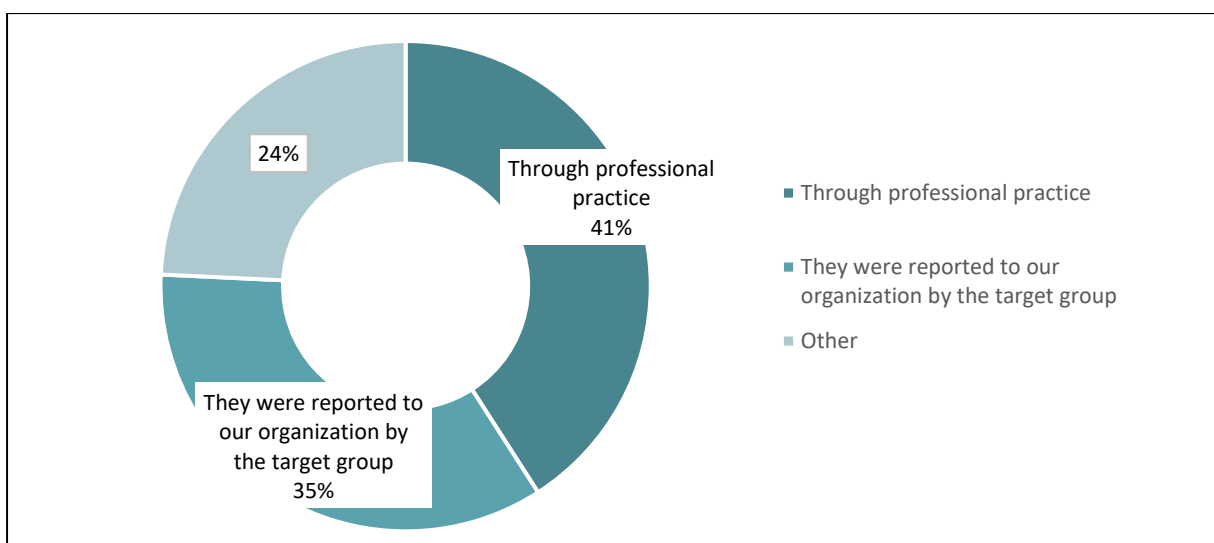


Figure 64 Discovery of barriers for target audience(s) in the form of COVID-19 communication by the federal government.

In an open question, the respondents were asked to highlight the barriers encountered by their target audiences related to the form of the messages. The barriers reported by the respondents are presented hereafter according to the different vulnerable groups for whom our research project aims to issue recommendations for a more inclusive communication. These findings are complemented with information obtained through the optional meetings with some of the respondent organisations during the period of the survey.

2.3.4.1 BARRIERS FACED BY GROUPS WITH LOW SOCIOECONOMIC LEVELS AND/OR LOW LEVELS OF HEALTH LITERACY

Some associations acknowledged and welcomed the efforts made the federal government to simplify the messages, yet most of them expressed that the messages are still too complex to be understood by most of their target audiences.

The lack of the use of Easy Language (FALC) was highlighted by many respondents. The vocabulary is, in their opinion, often too technical and sustained for a number of people, particularly when it comes to providing scientific information. The sentences are sometimes too long in written texts. The information does not always go to the point. There is often a lack of simple and clear explanations, for example as to why protective measures are needed. Several organisations noted that the numbers, rates, diagrams and graphs presented in the different types of materials were inaccessible to their targets groups. Furthermore, the tone used was often criticised for being too injunctive, which may lead to barriers related not only to accessibility but also to acceptance of the messages. Moreover, the recommendations were thought to be not concrete enough for the people who receive them. As a matter of fact, they are sometimes difficult to apply in the context of their lives.

The quantity of information provided was another barrier mentioned to accessing messages. In fact, according to the majority of the respondents, many media contain too much information. This large amount of complex information leads people with a lower level of literacy to experiencing a loss of control. It drives some of them to turn to simpler and more accessible information, like the ones found in conspiracy theories or fake news.

Regarding the layout of some communication products, according to some organisations, it is not always airy enough and the font used is not always easily readable.

Finally, among the vulnerable populations with whom the respondents work, some more specific groups, such as older people or the homeless, have either no access or limited access to the Internet and computer technologies. Thus, the messages disseminated on digital media do not reach this part of the population. The digital divide (“fracture numérique”) was mentioned many times as a factor contributing to inequality in access to the messages disseminated. According to the respondents, the government has completely underestimated this factor by focusing mainly its communication mainly on digital media.

2.3.4.2 BARRIERS EXPERIENCED BY FOREIGN-LANGUAGE SPEAKERS FROM DISADVANTAGED SOCIOECONOMIC BACKGROUNDS

According to the respondents, the first barrier encountered is the small number of translations available.

In addition, their target audiences have faced similar barriers to those of the previous category. The general observations by most of the organisations are that the information is too dense, too complex and the amount of information provided (in one material or more generally) too high. One association pointed out in particular that in the existing leaflets in foreign languages, the text remained unclear. Several organisations mentioned the digital divide as a major barrier for many people of this target group to access digital media.

Another barrier pointed out was related the visual representations, which were said to be sometimes unclear. For example, when images or icons are presented, they are rarely self-explicit, but may be understood only with the text that accompanies them.

2.3.4.3 BARRIERS ENCOUNTERED BY PEOPLE WITH HEARING IMPAIRMENT

For the people with hearing impairment, the crisis communication revealed a lot of issues. First, new words were created, which meant new signs had to be created to translate these words. Several organisations pointed out that the press conferences of the Concertation Committee (“comité de concertation”) are interpreted into sign languages and completed with subtitles which is, according to the participating organisations, an important step towards inclusion of the deaf people and people with hearing impairment. The fact that some of the interpretations are done by deaf people themselves creates a sense of confidence and increases adherence. However, the flow of information presented orally (speech rate) is sometimes too fast to be followed easily by deaf people and people with hearing difficulties people in sign language.

Moreover, it was stressed that some groups seemed to have encountered more difficulties in accessing the messages. As not every person with auditive impairment has access to the complexity of LSFB as it has only been a few decades since sign language has been developed and generalised. Thus, older people with hearing impairment (sometimes recently acquired because of age) may not have been able to understand the information the government was trying to convey. The same observations have been made for deaf people who do not speak the French Belgian Sign Language (LSBF) or another national sign language. There are also people who cumulate several vulnerabilities, as for example deaf people with cognitive barriers or with low computer technology skills.

Furthermore, although press conferences are translated and subtitled, some tv channels set their logo onto the interpreter and their information title banners over the subtitles which prevents the deaf people and those with auditive impairment to understand what is happening. It was also reported that some channels broadcast these adaptations only around midday which makes it complicated or even impossible for day-working people to see them. Most of the organisations have also made it clear that the size ratio between the interpreter and the rest of the screen is usually too small for information to be fully understood.

The large amount of information (sometimes changing) in a short period of time was considered a barrier to accessing the messages. Similarly, the complexity of the written messages was highlighted. It was regretted that too little clear and effective visual supports are produced. One organisation has highlighted the inadequacy of the pictograms for people with hearing

impairment, which they said are created and would make sense for hearing people, but not for people with hearing impairment, not even when there are sentences explaining the pictures, as a number of people with hearing impairment have difficulties with the written language, due to the ways in which the written language is learnt at school (through phonological exercises hardly accessible to children with auditive impairment). Moreover, the LSFB lexicons and grammar are very different than the regular French language. Those specificities therefore create barriers with the written French language. Some organisations thus stressed the reading “disability” often encountered by deaf people, which makes it difficult for them to understand the sentences accompanying the pictograms.

2.3.4.4 BARRIERS EXPERIENCED BY PEOPLE WITH VISUAL IMPAIRMENT

Less information was collected for this group than for the previous ones. This may be related to the fact that fewer associations representing this group responded to the questionnaire.

In the questionnaire, the first comment made was that most government material is not accessible to the people with visual impairment because of its format. This is the case of all materials containing non-adapted visual content. The following information was also gathered: the materials are sometimes too low contrasted and the fonts used are too small, the PDF or other format provided are not always compatible with reading machines or text-to-speech readers and some of the videos containing visual information are not audio-described.

2.3.5 EVALUATION OF THE ACCESSIBILITY OF THE CHANNEL OF FEDERAL COVID-19 COMMUNICATION

The average level of satisfaction among surveyed organisations regarding the channels through which the federal government delivered COVID-19-related messages was: 3,33, on a scale from 1 to 6.

The organisations' were asked whether target audiences had encountered barriers related to message **delivery channels**:

- 79,2 % responded that their audiences had encountered barriers;
- 20,8% felt that their publics had not encountered barriers related to federal (Figure 65).

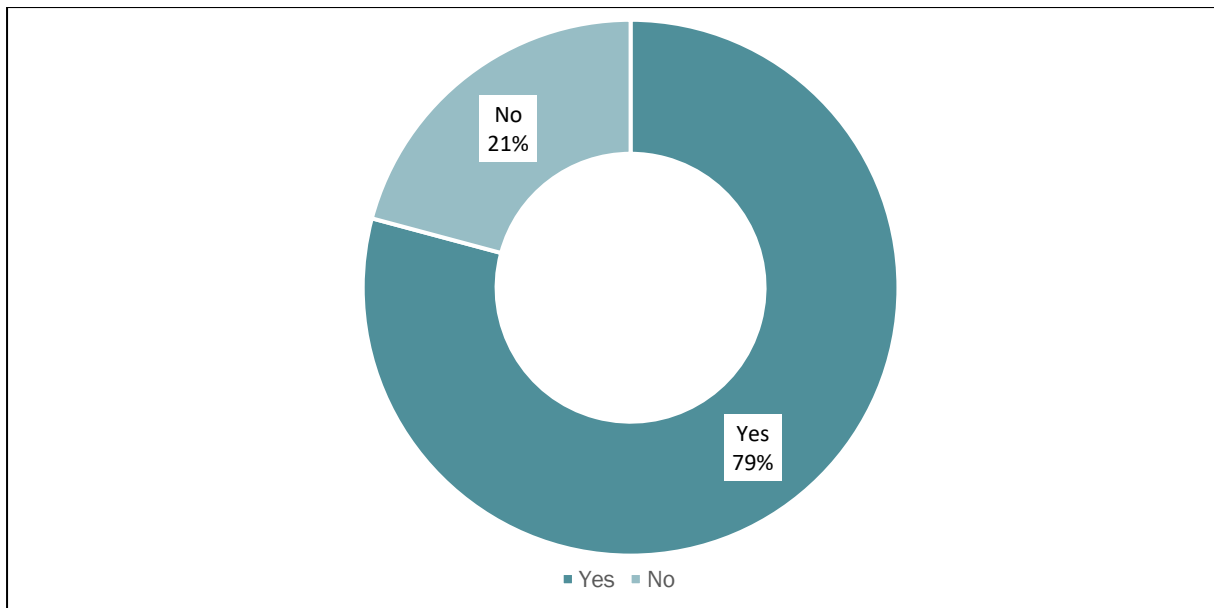


Figure 65 Experiences of barriers/problems regarding the accessibility of the channel of the COVID-19 communication by the federal government.

The respondents were asked how they had discovered that their groups were facing some barriers in relation to the channel:

- 43,9 % said that they had themselves become aware of these barriers through their own professional practice;
- 43,9% said that these obstacles were reported by a target group to their organisation;
- 12,2 % checked the "other" box, i.e. through contact with other professionals, mainly front-line workers, including health care providers (Figure 66).



Figure 66 Discovery of barriers for target audience(s) in the channel of COVID-19 communication by the federal government.

More information was collected through the open format question in the survey, as well as through the online discussions with some of the organisations. This is detailed hereafter, according to the different target groups of the project.

2.3.5.1 BARRIERS FACED BY GROUPS WITH LOW SOCIOECONOMIC LEVELS AND/OR LOW LEVELS OF HEALTH LITERACY

The first observation raised by several organisations was that not everyone has access or consult the traditional media (television, radio, press). As an example, one organisation said that the press conferences are watched by very few people among their target audiences. Similarly, the www.info-coronavirus.be federal website is little known and consulted by people from disadvantaged socioeconomic backgrounds, according to the respondents. On the one hand, among the more vulnerable people, as already mentioned, some do not have access or have restrictive access to the Internet or digital technologies. They get information through other channels. On the other hand, it was also pointed out that navigation is particularly complicated on this website. One person suggested putting an image or icon on the home page of the site, to allow for direct and easy access to information in FALC. Furthermore, it was said that not only does the "logic of the website" confuse the users, two other difficulties arise: understanding the information provided and situating it among the flow of other information disseminated. Some respondents also stated that their target groups do not consult the government media because they lack confidence in the decision-makers. Thus, it was advised to use other communication channels, involving community intermediaries, because these are known from the public and considered to be reliable and favouring a local communication. For example, pharmacists and general practitioners who are often in contact with the target audiences would be involved to act as intermediaries. One organisation emphasised that it is better when the information goes to the group than when the people has to look for it. Telephone lines were also presented as an interesting channel. The ones available were apparently highly used during the crisis but were often saturated.

2.3.5.2 BARRIERS EXPERIENCED BY FOREIGN-LANGUAGE SPEAKERS FROM DISADVANTAGED SOCIOECONOMIC BACKGROUNDS

Similar to the previous group, the representatives of foreign-language speakers estimated that a significant part of their publics do not seek information related to the coronavirus on governmental websites nor in the traditional media.

They argued that the www.info-coronavirus.be website is not well organised. It is difficult for their target group to find information in their language. Indeed, once on this website, it is necessary, first, to click on one of the 4 languages proposed on the homepage (French, Dutch, German and English) and then, to find the tab "Information in French Sign Language of Belgium (LSFB) and in simplified language, picture language, audio and foreign languages". Not all of their target audiences read the Latin alphabet. Some of them have no written knowledge of French, Dutch or English. The path to access the information in foreign languages is therefore too complex according to them.

One organisation pointed out that too little personal (face-to-face) communication has been set up, although this would be a very effective channel of communication.

2.3.5.3 BARRIERS ENCOUNTERED BY PEOPLE WITH HEARING IMPAIRMENT

The same barriers as mentioned above were highlighted by some organisations representing deaf people and people with hearing impairment, especially for illiterate deaf people (who represent a significant proportion of the deaf population). Some of these people seem to have been informed by the press conferences on television, even if the information was sometimes too

complex. No other barriers related to the delivery channels were mentioned regarding this specific population in the survey.

During the online meetings however, some organisations stressed that the timeframe in which adapted and accessible information is shared on TV (around noon) is not compatible for people with hearing impairment who are working during the day. Therefore many people's preferred channel is Facebook where a few pages specific LSFB pages dedicated to COVID-19 were created for people with hearing impairment to get their information from but also to share testimonies with each other.

2.3.5.4 BARRIERS EXPERIENCED BY PEOPLE WITH VISUAL IMPAIRMENT

Representatives of the people with visual impairment mentioned only form-related barriers in this questionnaire. Nonetheless, during the online meetings, the digital divide was mentioned for this group as well: not every blind or visually impaired person has access to the right digital materials. In addition, if they do, the website www.info-coronavirus.be does not fully comply with the European Web Content Accessibility Guidelines. This makes the access to information challenging for the people with visual impairment.

2.3.5.5 BROADER CONSIDERATIONS REGARDING THE ACCESSIBILITY OF MESSAGES RELEASED BY THE FEDERAL GOVERNMENT

From the survey:

- Some barriers faced were common to all groups studied:

Some barriers were mentioned by representatives of all the target groups studied. First, these relate to the complexity of the textual and audio messages. It also relates to the excessive amount of information disseminated (both in a single media and more generally). It appears that both less messages and simpler, more concise and clearer messages would be beneficial to all of these groups. The use of Easy Language (FALC) has been recommended by several organisations, each of which works with different target audiences.

The significant use of online channels and digital media seems to have created difficulties for all these groups. Some organisations mentioned that it would be beneficial to multiply and diversify the channels in order to reach all publics.

- The cumulation of vulnerability factors accentuates inaccessibility:

An overall observation that has emerged from the responses to the questionnaires is that the groups that seem to have encountered the most difficulties in accessing the communication messages disseminated by the federal government are those cumulating different factors of vulnerability. For example, the following groups, among others, were cited by the respondents as facing specific challenges: people with hearing and/or visual impairments who are non-native speakers of French or Belgian-French Sign Language and/or who face social and economic difficulties.

Age was cited many times by the respondents as a factor that influences the barriers experienced. Older people who are deaf, from low socioeconomic backgrounds, foreign-

language speakers, blind or several of these factors at the same time, seem to face increased difficulties. This may be related to the fact that they are not familiar with using the Internet or certain digital technologies. It has also been said that young people have sometimes been forgotten, with messages rarely adapted to them, for example in terms of language or imagery used.

Mental disability was cited as a factor that exacerbates the obstacles encountered.

Finally, it has been emphasised that the isolation of people who were already marginalised was often accentuated during the pandemic. This situation has led some people to "withdraw" from social life, making access to the messages even more complicated for them.

- The inadequacy between certain messages and the realities of life of the target groups sometimes leads to a lack of adherence to the measures

One global reflection that emerged from many respondents is that the messages were often inaccessible because not adapted to the living environments (economic, cultural, social, etc.) of the target groups. The messages were, for example, often too abstract and difficult to transpose to their lived realities (especially in the most precarious socioeconomic environments). This situation created a feeling of frustration, mistrust and led to a lack of adherence to the measures.

From the meetings:

- The emergency inherent to crisis situations was said to be sometimes difficult to reconcile with timely implementation of actions intended for specific publics. As a result these publics may sometimes be considered and addressed in a second stage only, after the general population has received the information. The administrative and logistical steps to organise the specific communications (for example appointing sign language interpreters) take time.
- The relative importance of communication was also discussed, with organisations suggesting that no matter how important, the crisis communication should not be the only aspect to be studied. They insisted that communication issues should be replaced in the larger context of the many consequences of the pandemic. Moreover, some organisations were concerned about the link that may be made between communication of and adherence to measures, thus warning against some possible shortcomings. They suggested that the importance of adequate communication should not be reduced to an instrumental goal to have the target groups adhere to measures. The goal of communications should be to support informed and meaningful decisions processes instead.
- Quite a few organisations were critical about the exclusive focus of the project on the form and channels of the messages. Referring to fundamentals of communication, they emphasised that it is hard to dissociate the form and diffusion of messages from their actual content, if the messages are to reach the public. Even more so at times of crisis, they suggested that the public should be put at the heart of the communication process, and involved in the developments of products.

- The organisations criticised what they called a very top-down approach, resulting in a lack of differentiated messages, that would be tailored to the specific needs of the target audiences. They insisted on what they called a “bourgeois bias”, to point to the shortcomings of an undifferentiated communication that affects different audiences in a differentiated way. As a conclusion, they insisted that adapting communication should be understood as more than just translating messages in different ways if the messages are to reach the target audiences and support their decision-making and the needed adaptations in their everyday lives.
- The governments’ communication was sometimes defined as being infantilising, and ignorant of what specific vulnerable populations experience in their everyday lives. Thus, it was considered necessary to place the issue of communication in a much more global perspective. These considerations also raised the question of the trust given by the population to messages emerging from the politicians.
- In addition to the vulnerable groups targeted in the project, some organisations mentioned the importance of investigating communication issues with other understudied groups, such as people have a good literacy level but are resistant to change and may feel offended by some aspects of the modes of communication that are used, and will therefore denigrate the messages within their communities. It was stressed that some people at a community’s level, with better literacy level, would bring the information to other audiences with poor literacy and limited access to information, yet through a very negative and resistant prism that may impact negatively the adherence of the population.

2.3.6 SURVEY PARTICIPANTS’ OWN INITIATIVES TO MAKE COVID-19 COMMUNICATION MORE ACCESSIBLE

In a following section of the questionnaire, organisations were asked whether they had undertaken initiatives in order to address the barriers or problems of accessibility encountered by their target group(s) with the channel and/or form of communication made by the federal government. Figure 67 shows the majority of them (72,9 %) did undertake initiatives.

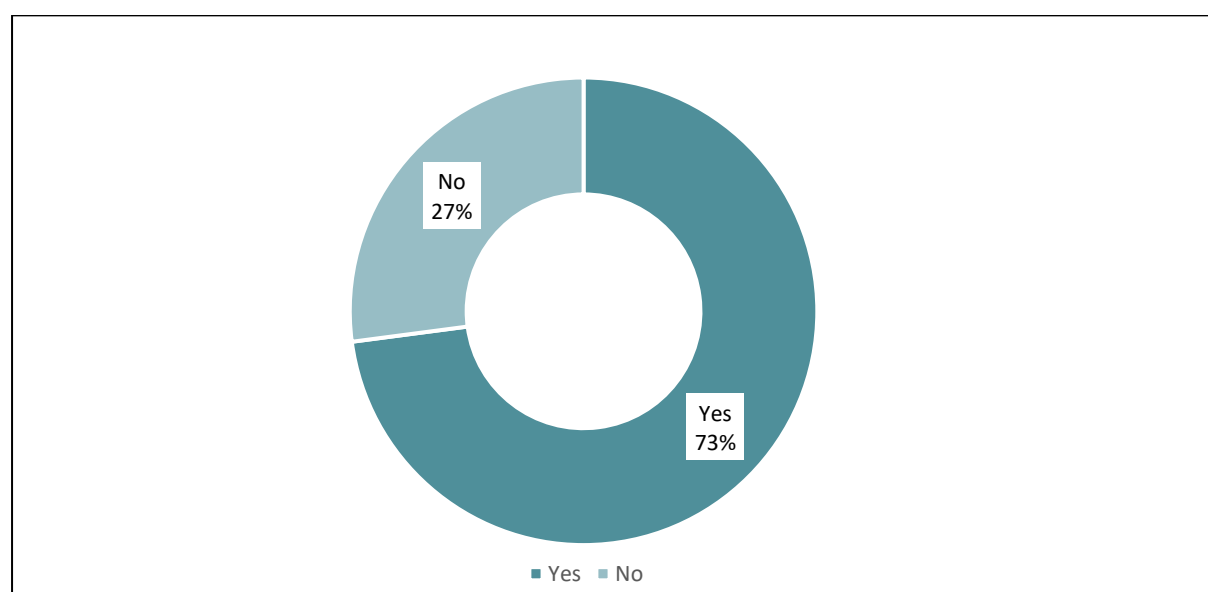


Figure 67 Undertaking of initiatives addressing barriers in form/channel by organisations participating in the survey.

- 26 organisations developed some adaptations to the existing materials or created their own products in response to the barriers encountered by their target groups with the form and/or channel of the federal government's communication.
- reported those difficulties and barriers to the authority, either on a federal, regional or local level.
- organisations made internal evaluations⁴² or surveys filled in by their target group(s) to estimate and address their barriers with the form and/or channel of the communication provided by the federal government.
- 10 wrote reports or drafted (internal) guidelines to address the issues encountered by their target group(s) with the inclusive crisis communication.
- 6 structures undertook other initiatives, which will be detailed further down (Figure 68).

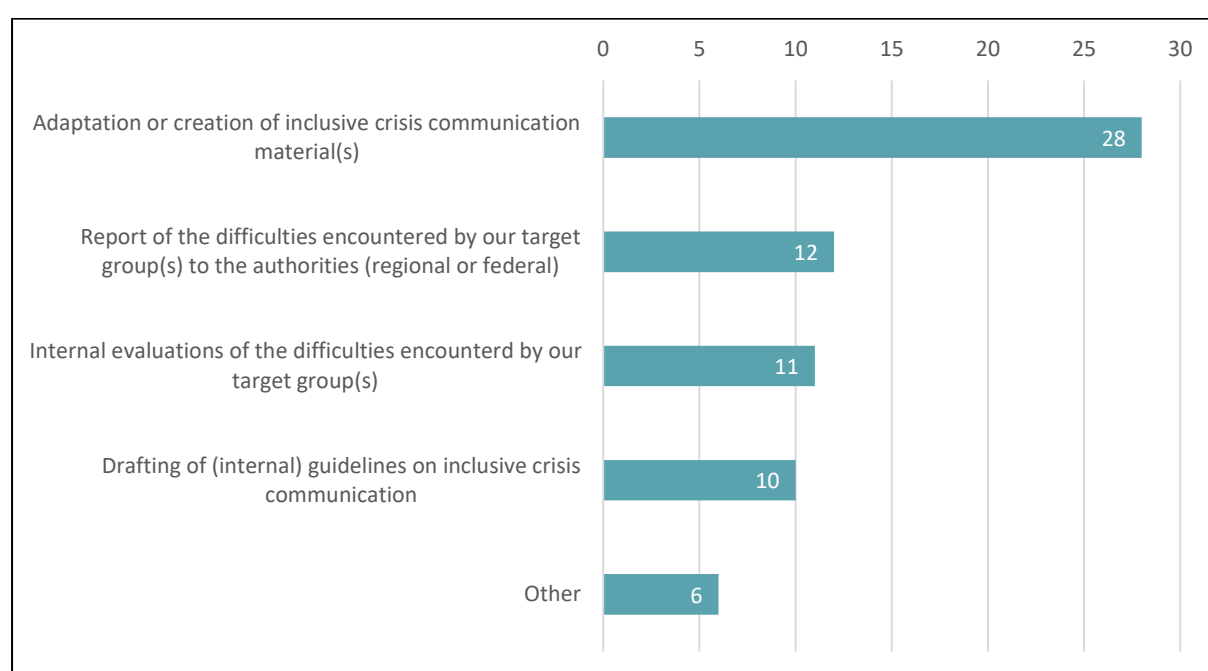


Figure 68 Types of initiatives undertaken by organisations to address difficulties encountered with the communication made by the federal government.

As part of the materials and products developed by the organisations who took part in the survey, the followings have been mentioned:

- Distribution of journals with COVID-19 information to homeless people;
- Translation of products in different languages with the help of cultural mediators;
- Translation of materials in French sign language (LSFB) and in Easy Language (FALC);
- Creation of an email address specifically for the questions of citizens;
- Organisation of information session about COVID-19 and vaccination;
- Re-sharing of the official communication through social media;
- Creation of flyers and posters;
- Creation of videos about COVID-19 and vaccination;
- Creation of Facebook ® pages about COVID-19;

⁴² Up to the date of this report, no organisation shared its internal evaluations to the research team. An addendum will be made if the reports are shared later.

- Creation of products for youngsters;
- Publishing of health magazines dedicated to COVID-19;
- Creation of a tool box with COVID-19 materials;
- Opening of a FAQ section about vaccination on the organisation's website;
- Surveys;
- Creation of a call-centre;
- Newsletters about the evolution of the pandemic and the new measures;
- Webinars;
- Spread of correct information to people by meeting them (online or in real life);
- Summaries of the press conferences;
- Collaboration with local televisions to spread videos;
- Documents with things to be careful about to avoid contracting and spreading Coronavirus.

Hereafter are the initiatives listed under the term “other”:

- Consultations and working-groups with local organisations and intermediaries;
- Projects created with similar organisations;
- Creation of a hotline where people can call to get answers to their COVID-19 related questions;
- Creation of a hotline to help the target groups with their vaccination procedure;
- Establishment of roundtable discussions with the target groups to help them cope with the difficulties they encounter during the pandemic;
- Spread of information through themed event such as « The week of hygiene » ;
- Redaction of articles.

2.4 REPORTS AND WEBSITES SCREENING RESULTS

2.4.1 KNOWLEDGE, USE AND IMPLEMENTATION OF INCLUSIVE COMMUNICATION INITIATIVES

The websites of all listed organisations (n= 147) were carefully screened, in order identify any relevant and publicly available COVID-19 communication material.

56 of the 147 organisations had created either an official page or a tab devoted to COVID-19 information on their website (Figure 69), with reference to several official information sources for most of them (Figure 70).

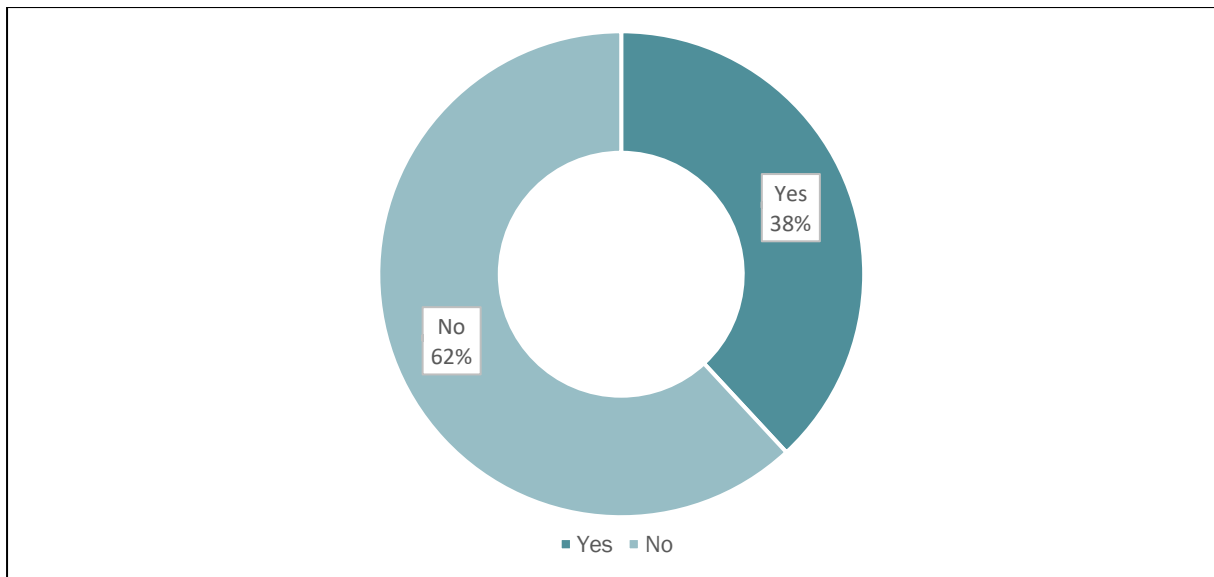


Figure 69 Organisations that created a special COVID-19 page or tab on their websites.

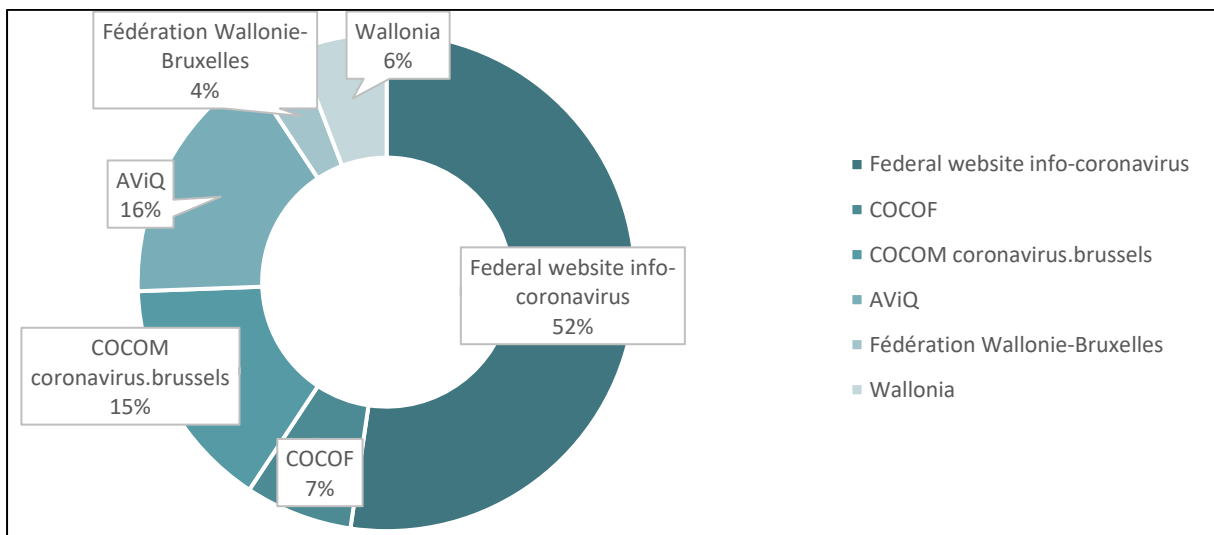


Figure 70 Reference to the COVID-19 specific pages created by the federal and regional agencies.

Reference to federal information sources:

- 45 organisations refer the federal government's website www.info-coronavirus.be on their website
- 9 have a link to download the app Coronalert (<https://coronalert.be/fr/>)
- 8 refer to the SPF Santé Publique (Federal service for public health), <https://www.health.belgium.be/fr>
- 6 mention the COVID-19 page of Sciensano (<https://COVID-19.sciensano.be/fr/COVID-19-situation-epidemiologique>)
- 3 mention SPP Intégration Sociale (<https://www.mi-is.be/fr/outils-cpas/coronavirus-COVID-19>)
- 3 suggest the website of the National Crisis Center (<https://centredecrise.be/fr>)
- 4 mention the SPF Affaires Étrangères (Federal service for foreign affairs) <https://diplomatie.belgium.be/fr>

- 2 refer to the SPF Économie (Federal service for economy) (<https://economie.fgov.be/fr/themes/entreprises/le-coronavirus-et-ses>)
- 2 mention Fedasil (<https://www.fedasil.be/fr/actualites/accueil-des-demandeurs-dasile/COVID-19-mesures-dans-les-centres-daccueil>)
- 2 organisations refer to the Institut national d'assurance sociales pour travailleurs indépendants – INASTI (The institute of national insurance for independent workers) (<https://www.inasti.be/fr/news/difficultes-suite-au-coronavirus>)
- 2 mention the Federal agency for medication and health products (AFMPS) when they talk about vaccination (https://www.afmps.be/fr/humain/medicaments/medicaments/covid_19/vaccins)
- 1 shares a link to the SPF Finances (Federal service for finances) (<https://finances.belgium.be/fr/particuliers/coronavirus>)
- 1 mentions the SPF Emploi, Travail et Concertation sociale (Federal employment, service and social dialogue) (<https://emploi.belgique.be/fr/themes/coronavirus>)
- 1 refers to the SPF Mobilité et Transports (Federal service for mobility and transportation) (https://mobilit.belgium.be/fr/transport_aerien/covid_19_coronavirus)

The organisations which refer to federal services are mostly municipalities.

Reference to regional information sources:

- 23 organisations share the link to the website about vaccination created by the COCOM and AViQ: www.jemevaccine.be
- 14 organisations refer to the website dedicated to COVID-19 of the AViQ (www.covid.aviq.be/fr)
- 13 mention the website of the COCOM (www.coronavirus.brussels)
- 6 refer to the website of the COCOF (among them, 2 suggest the PHARES⁴³'s specific page) (<https://infocorona.net.ccf.brussels/>) (<https://phare.irisnet.be/coronavirus/>)
- 5 suggest the website of Wallonia (<https://www.wallonie.be/fr/actualites/coronavirus-COVID-19-mesures-regionales>)
- 3 refer to the Fédération Wallonie-Bruxelles (<http://www.federation-wallonie-bruxelles.be/coronavirus-2020/>)

Reference to local information sources:

- 1 organisation refers to the website of the Province of Liège (<https://www.provincedeliege.be/fr/covid19>)
- 1 mentions the website of the Province of Namur (<https://www.province.namur.be/sante>)

The websites of the selected organisations also refer to **non-governmental** sources. Hereafter are some examples:

- The website of World Health Organisation (<https://www.who.int/fr/emergencies/diseases/novel-coronavirus-2019>)
- The tool box of Inclusion asbl (<https://www.inclusion-asbl.be/espace-facile-a-lire/les-outils/>)
- The Facebook® page of CORONA LSFB dedicated to people with hearing impairment (<https://www.facebook.com/coronalsfb/>)

⁴³ PHARE is a service for disabled people that depends on the COCOF.

In addition to providing links to these different websites, the organisations also share some selected materials and adaptations from these websites. For example, the materials provided by the federal government, and especially the visual ones like the pictograms or the videos, were displayed by 18 organisations.

Moreover, in the questionnaire, the respondent organisations were invited to share any initiatives they had undertaken to make COVID-19 related messages more accessible to their target audiences. Six organisations emailed the ICC French speaking team such materials. Amongst these initiatives the following were received:

Several letters addressed to political authorities produced by one association

- A sheet listing all the materials produced by an organisation and the distribution channels used for each of the materials produced
- An activity report
- Some flyers
- Some information sheets or leaflets
- Some posters
- Some advocacy letters sent to politicians

Furthermore, 12 organisations referenced their web pages containing materials to raise awareness about COVID-19, including videos and flyers. Some of the content was not specifically or directly targeted to the audiences of this research project, and is therefore not presented in this report.

2.4.2 ORGANISATIONS' OWN INITIATIVES TO MAKE THE FORM OF COVID-19 COMMUNICATION MORE ACCESSIBLE

The organisations' own initiatives to make the form of COVID-19 communication more accessible are presented hereafter according to the different groups.

Before presenting the initiatives, we will clarify some terms. In this report:

- An information sheet is a document containing a single page with information;
- A flyer is a double-sided document containing information;
- A brochure is a document containing more than two pages.

2.4.2.1 INITIATIVES DIRECTED TOWARDS GROUPS WITH LOW SOCIOECONOMIC LEVELS AND/OR LOW LEVELS OF HEALTH LITERACY

Many initiatives primarily aimed at people with low literacy skills and/or low socioeconomic status were reported to the research team by the organisations and found on the web pages screened. These include mainly the production of information sheets, flyers, brochures, posters and videos.

INFORMATION SHEETS, FLYERS, POSTERS AND BROCHURES

Numerous medias of this type have been produced by the organisations. The information sheets, brochures, and flyers realised generally contain little text and are often accompanied by pictograms or other types of images. Several of these materials are produced in Easy to read and understand language. One finding from the previous section is that the use of Easy to read and understand language is useful for people with low health literacy, foreign-language speakers,

people with hearing impairment, and people with visual impairment. In a series of letters addressed to the authorities in June 2020, one organisation, the *Collectif Accessibilité Wallonie Bruxelles* (CAWaB), emphasised the positive measures taken by decision-makers, such as the effort to present communication clearly and the use of pictograms. They noted, in these letters, that the use of Easy to read and understand language is very useful but that all the information concerning the recommendations and rules to be followed in the pandemic context were not always translated into FALC. They mentioned, moreover, that most of the adaptations into Easy to read and understand language of the official recommendations were realised at the initiatives of some organisations. They advocated for these « good practices » to become the norm in official communications.

Indeed, many easy to read and understand language information sheets, flyers or brochures have been produced by organisations such as the Belgian Red Cross, Cohezio, SantéBD, Inclusion or the City of Charleroi.

Some of these flyers have a very airy and structured layout. They contain a little text and some images (see Figure 71 for an example).



Figure 71 Information sheet “cough and sneeze” by Cohezio.

Other information sheets that have been produced contain more visual information and very little text, such as those as Santé BD (Figure 72), using comics, and the Red Cross of Belgium (Figure 73).



Figure 72 . Information sheet “confinement is about staying at home” by Santé BD.

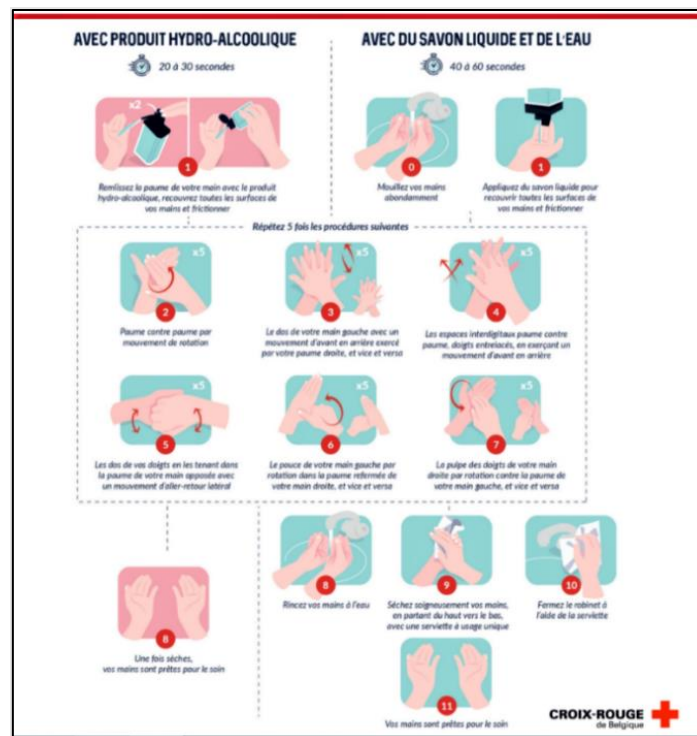


Figure 73 Information sheets “confinement is about staying at home” by the Red Cross of Belgium.

In these materials, the vocabulary used is generally very simple. The sentences are short. Moreover, the text is very often accompanied by images.

In addition to the information sheets, some brochures in FALC have also been produced. The Non-Profit Organisation *Inclusion asbl*, for example, has produced many brochures, each containing a few pages. The following brochure, for example, is about vaccination and contains 7 pages (Figure 74).

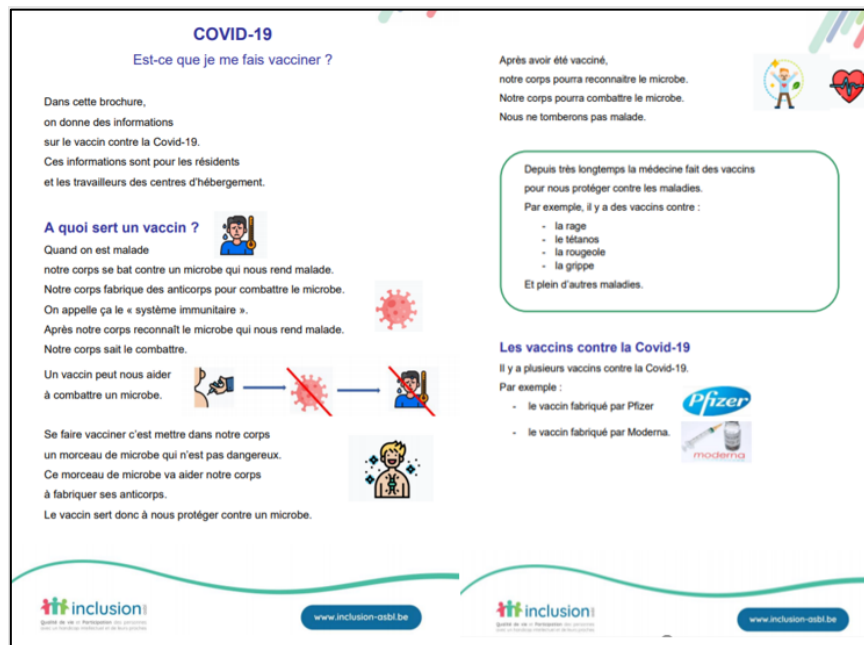


Figure 74 First two page of the small brochure “Do I get vaccinated?” by Inclusion.

Flyers have been designed, such as the one below (Figure 75), produced by the city of Charleroi. The flyers are interesting because they can be distributed in paper version and circulate among citizens. The city of Charleroi printed 1000 paper versions of each flyer produced. This town also realised posters to be displayed in public places (see Figure 76 for an example). Both types of media - flyers and posters - are intended to be printed in paper form. In the previous version, one of the criticisms was that the materials produced were too often digital. It should be noted here that some initiatives have been taken to fill this gap.



Figure 75 Flyer “how to protect yourself with a mask” by the city of Charleroi.

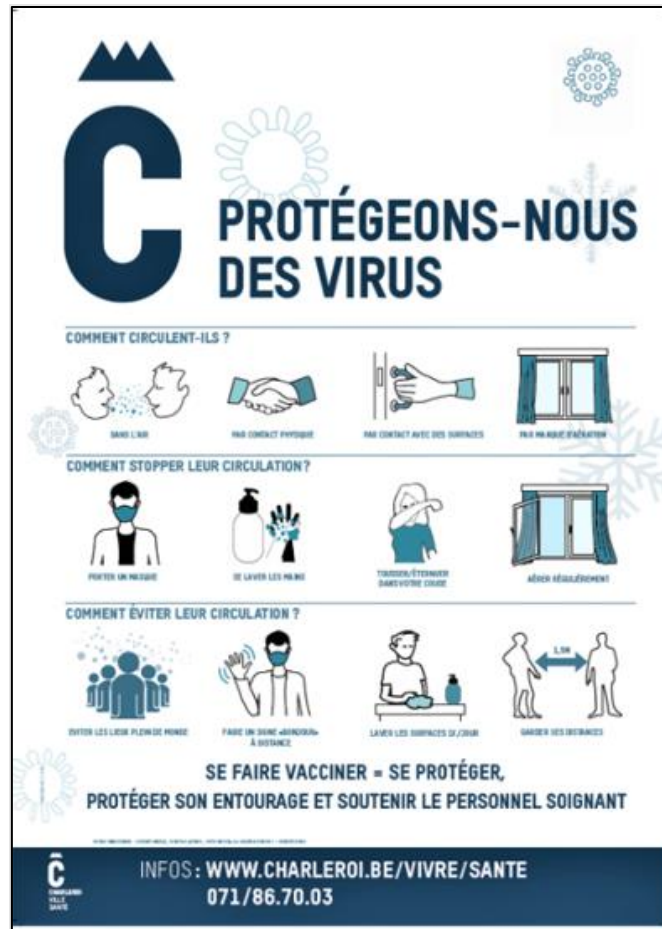


Figure 76 Poster “Let’s protect ourselves from viruses” by the city of Charleroi.

Finally, other sheets or brochures contain only text, such as those produced by the Ligue des Usagers des Services de Santé (LUSS) (Figure 77, left-side) or by the Fédération des maisons médicales (FMM) (Figure 77, right-side). These sheets are specifically aimed at health care users.

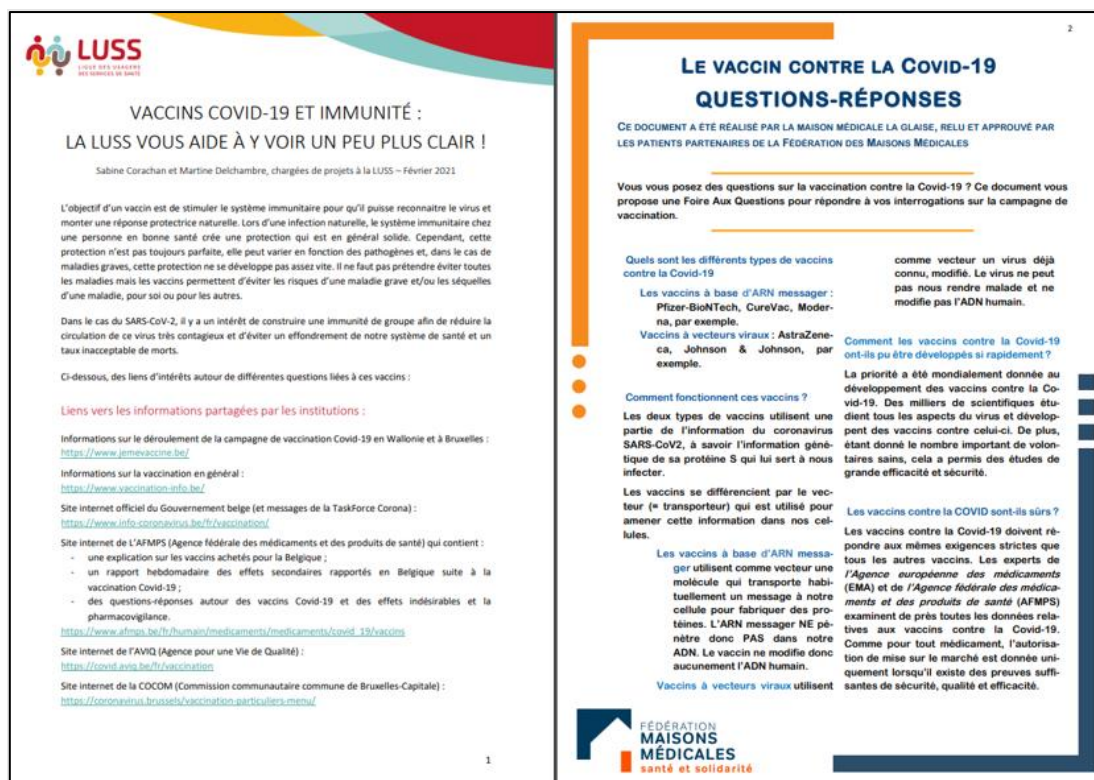


Figure 77 Information Sheet "COVID-19 vaccines and immunity" by LUSS and "COVID-19 vaccine. Questions and answers" by FMM.

The city of Mons has realised an information sheet which is **directly addressed, in a personalised way**, to its citizens and more specifically to the "seniors and vulnerable persons" (see Figure 78).



Figure 78 Information sheet addressed to elderly and vulnerable people by City of Mons.

VIDEOS

Several videos have been produced.

Some of these videos, such as the one produced by the Red Cross of Belgium and the one realised by the Fédération Wallonie Bruxelles, AViQ and COCOF (Figure 79) include a few images (here pictograms), a small amount of text and a background voice. The layout is simple, with only a few visual and textual information. The first one lasts about 2 minutes and the second one 1 minute.

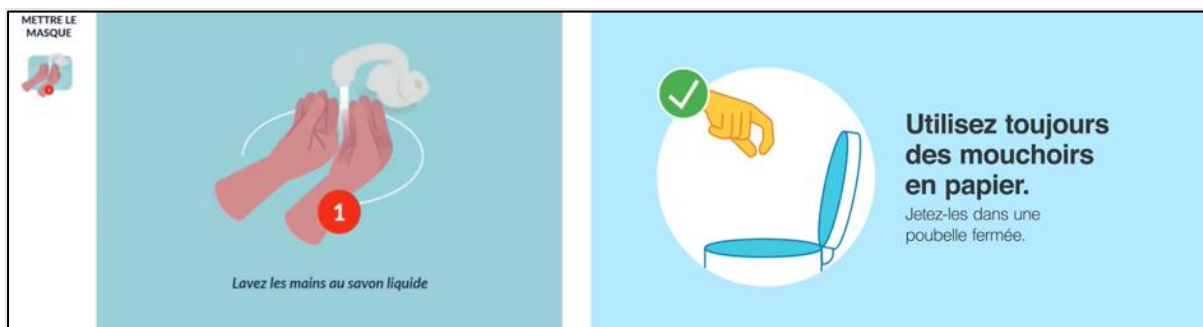


Figure 79 Videos “How to wear a fabric mask” by Red Cross Belgium and “together against the coronavirus” by the Fédération Wallonie Bruxelles, AViQ and COCOF.

In some videos, such as the one realised by the medical house of Anderlecht (Figure 80), a person filmed, shows, for example, how to put on a mask. The visual is then accompanied with some written sentences. The video in particular last 0,18 seconds but others last a little longer.



Figure 80 Video “putting on mask properly” by Anderlecht maison médicale.

Other videos that have been produced feature people speaking directly to their audiences. Some of these videos were produced by municipalities. The Municipality of Charleroi, in collaboration with the local television station, has produced a number of videos to answer questions raised by the citizens of the province. Similarly, the municipality of Arlon has also created numerous video capsules (Figure 81). These last about 3 minutes each. Images are used to introduce the subject. The mayor of the city is seen speaking to the citizens. Subtitles are provided. These videos are interesting because they present information and visuals that are closer to the citizens, and then information that are probably more meaningful and/or impactful to some people but maybe

sometimes more difficult to understand than videos with only some very simple sentences. Both types of videos have their advantages and disadvantages.

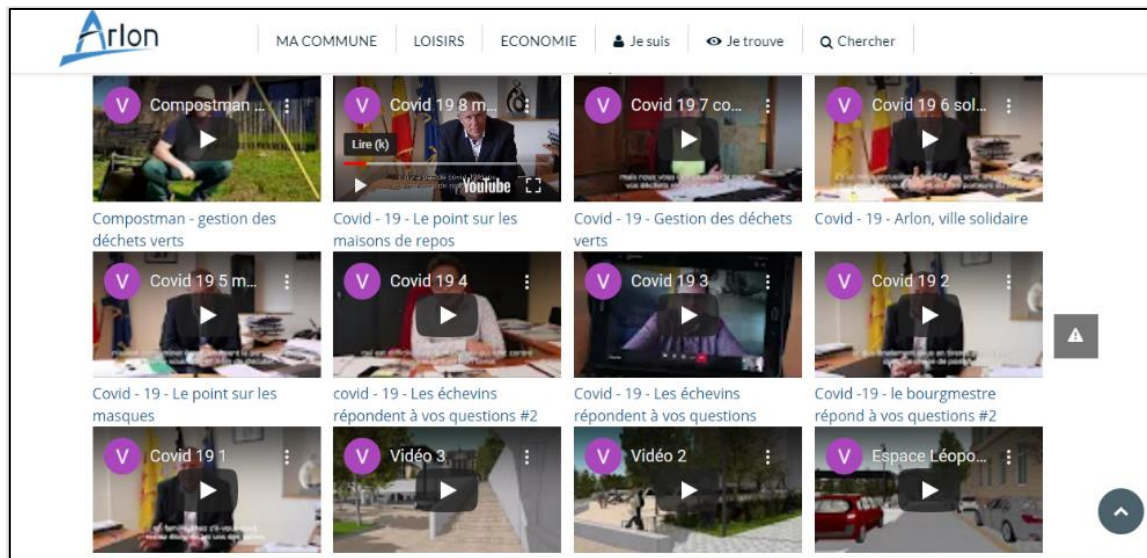


Figure 81 COVID-19 videos by the City of Arlon.

AUDIO

No audio file was found nor received by the research team for this specific target audience.

2.4.2.2 INITIATIVES DIRECTED TOWARDS FOREIGN-LANGUAGE SPEAKERS FROM DISADVANTAGED SOCIOECONOMIC BACKGROUNDS

Materials in the following languages were found by or communicated to the research team: Roman, Urdu, Turkish, Russian, Arabic, Mandarin, Albanian, Berber, Cantonese, Mandarin, English, Dari, Farsi, Lingala, Pashto, Polish, Serbian, Somali, Swahili, Darija, and Rifan, Portuguese, Spanish, Bulgarian, Albanian and Hungarian. Materials in many languages, including videos, fact sheets and flyers, have been produced by organisations such as SETISW and Foyer vzw. In addition, some municipalities, in neighbourhoods with a large population with immigration backgrounds, have also produced materials. Different from the previous category, audio files were produced, for example by the municipality of Molenbeek-Saint-Jean in Brussels.

INFORMATION SHEETS, FLYERS, POSTERS AND BROCHURES

Information sheets and flyers have been developed or adapted in several languages by Foyer vzw and SETISw. These flyers contain images (photos and pictograms) and short texts accompanying them (see Figures 82 and 83 for an example).

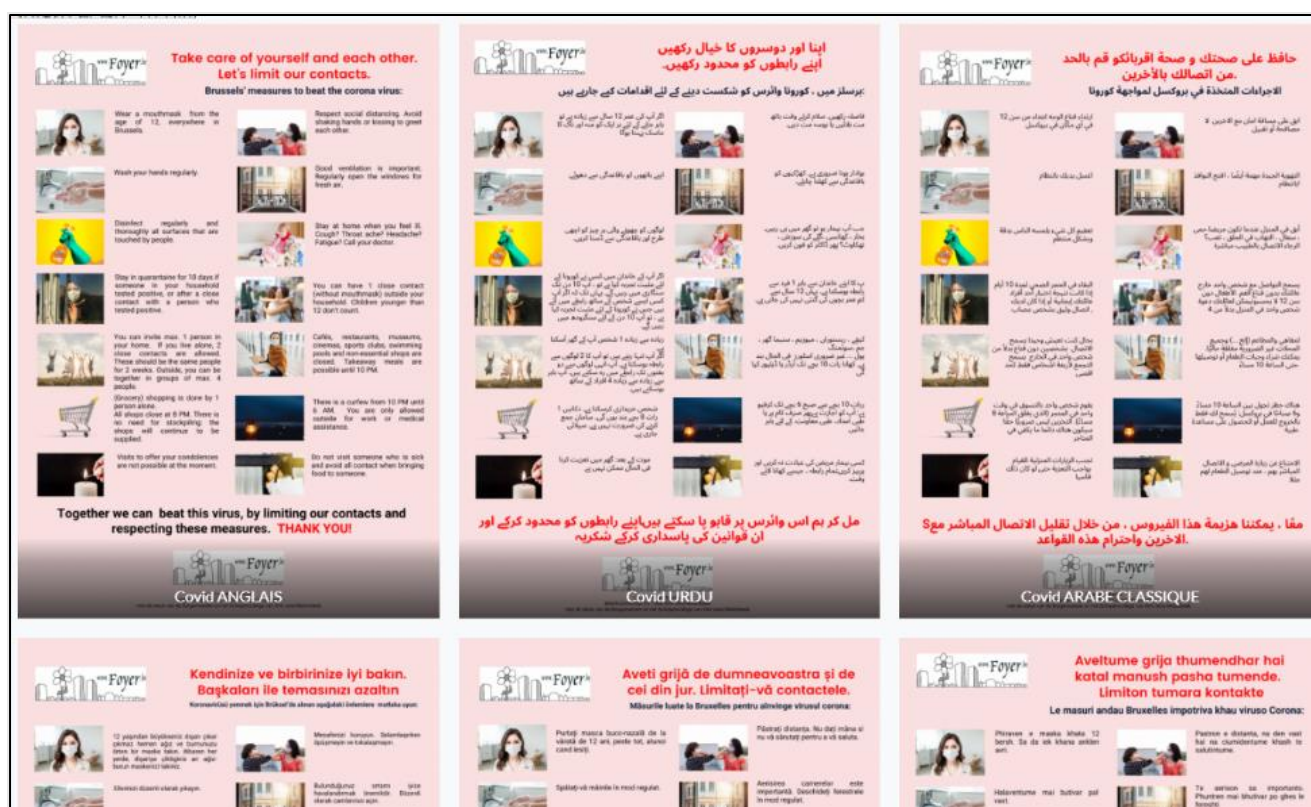


Figure 82 Information sheets about COVID-19 by Foyer vzw.



Figure 83 Information sheets about COVID-19 by Foyer vzw.

The organisation ESPACE P... also produced a poster and a brochure in several languages for its more specific audience: sex workers (Figure 84). These materials were produced with cartoonist and caricaturist Jean Bourguignon. Ten sex workers reviewed and approved the brochure. The involvement of the audiences for whom the material is intended is according to them interesting, allowing it to be closer to the lived realities and also better appreciated and used by them. The "poster" and "brochure" format also allow the materials to be printed, displayed in brothels and distributed directly to this audience.



Figure 84 Poster made by ESPACE P... in Romanian to inform sex workers about safe practices during the pandemic.

VIDEOS

Some videos have also been produced.

A series of videos was realised by the commune of Berchem-Sainte-Agathe (Figure 85). These videos last 18 seconds. They are very simple both in terms of infographics and the text that accompanies them. There is no speech, only some sounds in the background.

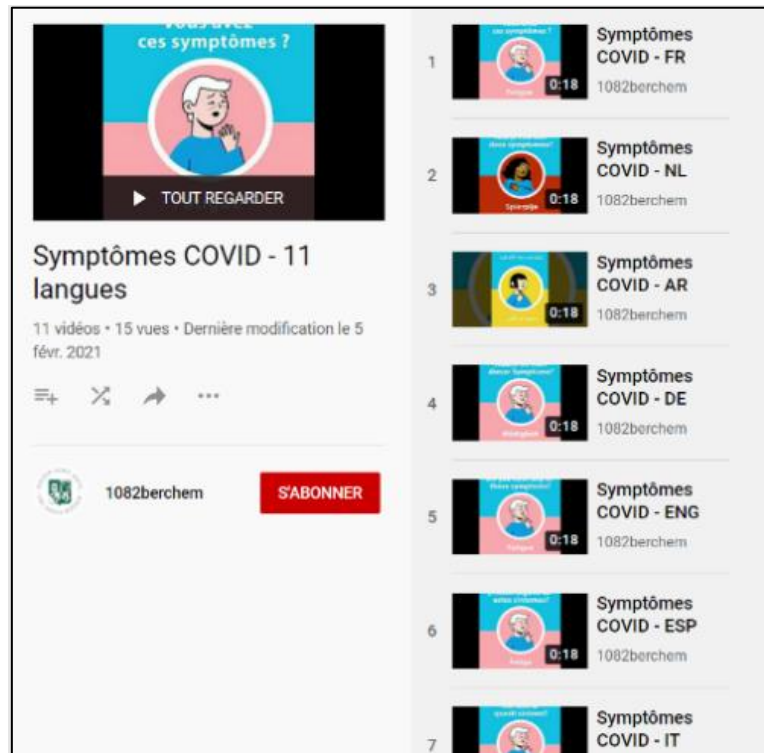


Figure 85 COVID-19 symptoms in 11 languages by the Municipality of Berchem-Sainte-Agathe.

Other videos were made by Foyer vzw (Figure 86). In these videos, a person speaks in front of the camera. There are no subtitles, nor images accompanying the person. The videos last longer than the previous ones, about 3 minutes. The people who gives the explanation are cross-cultural mediators and seem to belong to the community to whom the message is directed.

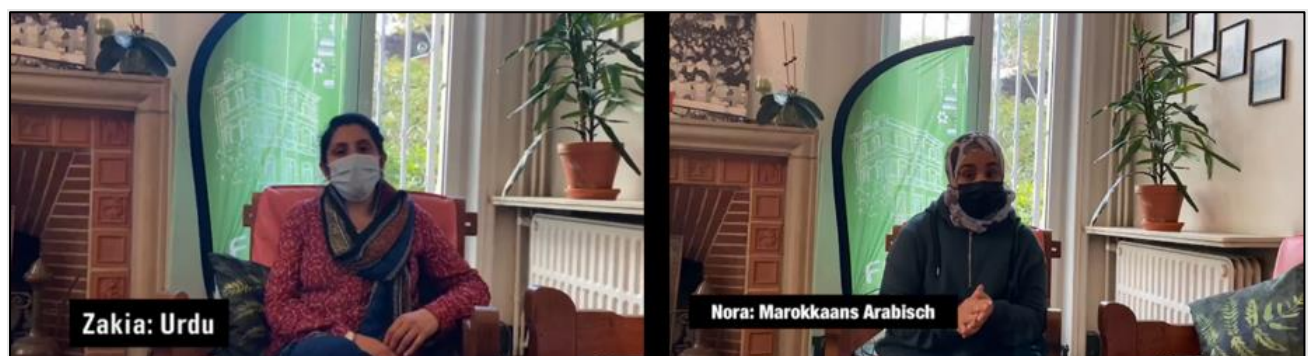


Figure 86 Print screen of videos in foreign language produced by the Foyer vzw.

AUDIOS

Some audio files have also been made. For example, Molenbeek-Saint-Jean, in collaboration with Agentschap Integratie en Inburgering, Atlas - Integratie en Inburgering Antwerpen, IN-Gent, Wablieft, Setis Wallon, Setis Brussels, New Hope Foundation and Arendsblik vzw, has produced audio files with advices on how to protect oneself and limit spread of the pandemic in the 7 languages. 4 audio files are available per language. They last between 22 and 49 seconds. See Figure 87 for an example of the different audio files available.

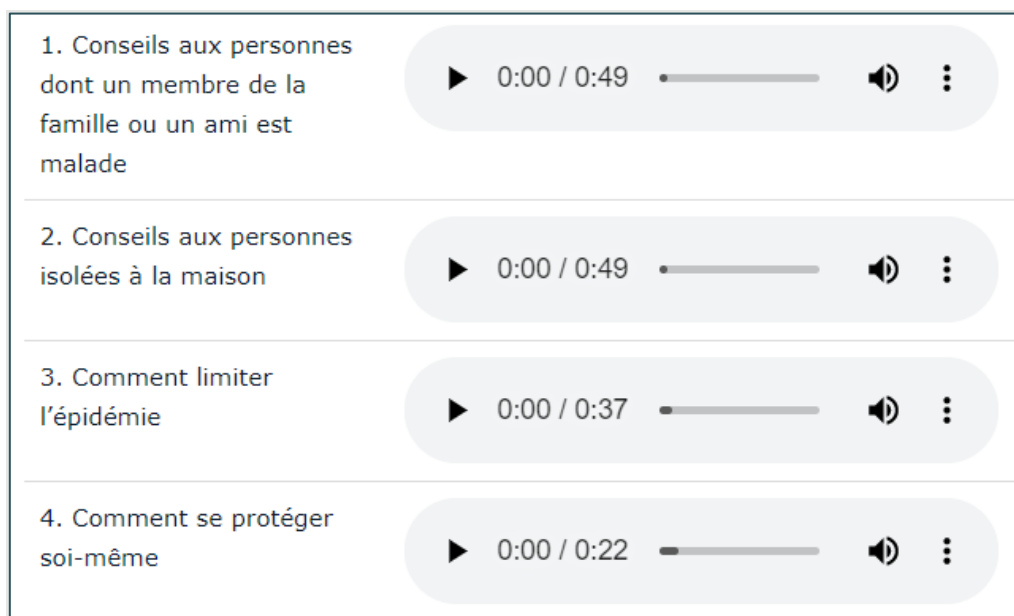


Figure 87 Print screen of audio messages developed by the municipality of Molenbeek-Saint-Jean.

2.4.2.3 GENERAL COMMENTS APPLYING TO PEOPLE WITH SENSORY BARRIERS

The last target group for this project is people with sensory impairment. The focus was set on people with hearing impairment, and on people with visual impairment. In this section, an overview of the difficulties encountered by people with sensory impairment is presented based on the advocacy letters provided by the CAWaB. The barriers specific to each target group are detailed in the following sub-sections and the initiatives undertaken by the organisations to counteract these accessibility issues are exposed.

The CAWaB sent several letters that they addressed to politicians, successively in June and December 2020, and in February 2021. In these letters, they questioned, in particular, the politicians on "the accessibility of information and communication". In the first series of letters sent in June 2020, they emphasised, at first, the positive measures taken by the decision-makers:

- The translation into sign languages (LSFB) of a significant portion of official communications such as press conferences and daily press briefings
- The use of pictograms to accompany some communications
- An effort to present communications in a clear manner
- The implementation of a Coronavirus call center (0800 14689) being accessible to people with hearing impairment via the service of remote interpretation Relais-Signes

They then asked for these initiatives to be evaluated, in consultation with the sector, in order to perpetuate the positive achievements. They noticed, moreover, first of all, that most of the

translations in Easy Language (FALC) of the official recommendations were realised at the initiative of associations. Then, they noted that the associations of deaf people also had to create their own videos in LSFB to make the information more accessible to this public (about the recommendations, the advice of hygiene, the manufacture of masks with transparent windows, etc....). They advocated for "good practices" to become the norm in official communications. These good practices are according to them: translation into FALC, translation into LSFB, subtitling and the use of pictograms.

They also called upon politicians to ensure equitable access to digital services for all. Some people, because of their disability or unfavourable socioeconomic situation, do not have access to them.

In the second set of letters sent in December 2020, this organisation stated:

"The info-coronavirus.be site includes, among other things, all the recommendations and rules to follow in the context of this pandemic. The sites developed by the federated entities include this information. Some of this essential information has been translated into sign language and Easy Language (FALC). Our associations representing people with disabilities are delighted with this.

However, we note that not all the recommendations are accessible to people with disabilities. For example, the latest measures, applicable since December 1, 2020, have not been translated into French sign language or FALC. The summary diagram that explains the new screening strategy (effective November 23) is difficult to understand with a voice-reading system and has also not been translated into FALC. "

They ask that specific attention should be paid to the messages disseminated as part of the vaccination campaign. They mention that it is important that the information is accessible ("clear and understandable") to all people with disabilities so that each of them can make informed choices about vaccination. They also reiterate their desire to evaluate the steps taken to make communication more inclusive.

Finally, in a letter to the authorities in February 2021, CAWaB, provides some concrete proposals to facilitate access to vaccination centres for their audiences. They point out that online information on this topic should be accessible. Information should be translated into sign language videos and written in Easy Language.

Indeed, Easy Language can benefit to a large amount of people and not just the people with intellectual disabilities as often thought by the government, but also for people who do not speak French (well) or people with a low literacy level. It is therefore necessary that the authorities develop materials in an Easy Language to avoid the misinterpretation of the official texts and announcements which can be confusing due to the large amount of information transmit to the population by and from different sources.

2.4.2.4 INITIATIVES DIRECTED TOWARDS PEOPLE WITH HEARING IMPAIRMENT

People with hearing impairment have been reported to face many issues with the form of the federal government communication, although the initiatives the latter has undertaken was valued by the target group.

VIDEOS AND VISUAL PRODUCTS (PICTOGRAMS)

As mentioned in the previous chapters, organisations working with people with hearing impairment value translations made by native LSFB interpreters which were successfully set up by the federal government for every official communication distributed on television. However, the creation of new COVID-19 related words might make the understanding of official communication complicated the amount of information shared during those press conferences is important which tends to confuse people. Furthermore, some television channels often set their information title banner above the subtitles and their logo overlaps the interpreter's image which makes the adaptations barely efficient or even useless in some cases. For better efficiency, the ratio between the interpreter and the rest of the screen should also be revised upwards so the LSFB adaptation is a third of the full screen size. Therefore, specialised organisations set up initiatives such as video summaries of the federal government press conferences interpreted in sign language. L'Épée asbl and l'Escale asbl have often been mentioned in the survey and their initiatives have been shared on a few organisations' websites. Since the beginning of the pandemic, these associations have made regular video adaptations in LSFB of the press conferences to summarise the measures decided by the federal government (Figure 88). They contain some key words and icons. Their videos may be found on the website of the FFSB⁴⁴ but also on different organisations' own Facebook® pages. Other organisations, such as medical house in Anderlecht, the FFSB and the PHARE, have also made similar adaptations to inform people with hearing impairment about the COVID-19 related themes.



Figure 88 Print screen of a video summarising the concertation of April 23rd in LSFB, L'Escale asbl & L'Épée asbl.

Moreover, since not every person with hearing impairment understands sign language – which is especially the case for older deaf people who are oralists or people who lost their hearing abilities due to their age – subtitles have a considerable importance in the communication. It should therefore be noted that textual information should be automatically added in addition to the sign language interpretation of all video communications

On another note, the inadequacy of the pictograms made by the federal government revealed by one of the organisations highlighted the issues faced by people with hearing impairment towards visual contents. Those graphic designs mostly make sense if they are completed by sentences explaining the concept behind the image. However, as mentioned in a previous section, people

⁴⁴ Fédération des Sourds Francophones de Belgique

with hearing impairment often encounter difficulties with the written language notably because of the different lexicons and grammar between LSFB and French. The visual contents should therefore be more detailed and obvious for a better accessibility and should contain as fewer text as possible. Pictograms should also be made with universal symbols for everyone to understand them. In addition, the new sign words created in order to communicate about the COVID-19 which are not understandable for everyone because of their complexity. Some organisations thus developed some materials using Easy Language, visual contents and interpretation in LSFB, as it was, for example, done by Inclusion asbl in partnership with Santé BD. They produced a video based on comics with universal drawings and Easy Language and added a LSFB interpreter to translate the auditive information (Figure 89). These materials can be good alternatives to face the issues about the ambiguity of the visual contents for deaf people and people with a hearing impairment.

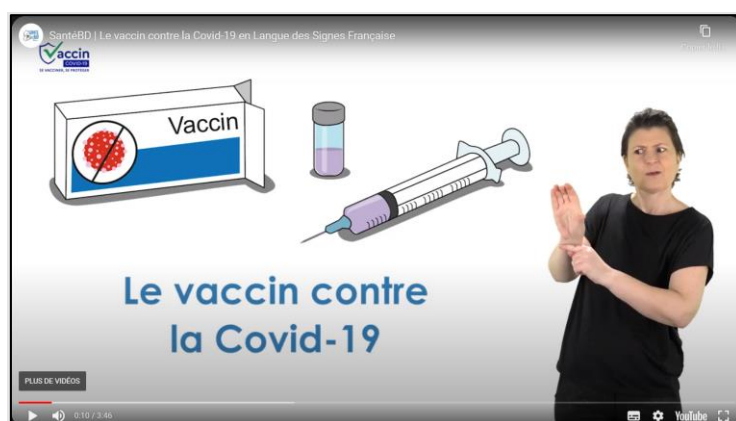


Figure 89 Print screen of the video made by BD Santé about the vaccine against COVID-19.

INFORMATION SHEETS, FLYERS, POSTERS AND BROCHURES

As mentioned in the above section, many people with hearing impairment encounter difficulties with the written language due to the way it is learnt but also because of a different grammar and different lexicons between LSFB and “regular” French. Official texts are therefore not always understood correctly often due to their complexity. To overcome this barrier, some organisations have created materials in Easy Language (FALC). For example, Inclusion asbl has developed flyers and small texts destined to people with disabilities. Their communication materials can also be used with people who do not speak French and/or who have a low literacy level. Since the beginning of the pandemic Inclusion asbl, by itself and in partnership with Santé BD and the ARAPH, has created documents that aim to be easy to read and understand. Moreover, Alter&Go, a provincial service for disabled people has also produced a leaflet with a specific section for people with hearing impairment. It contains a document which the latter may print or download on their phone to show to others, in order to communicate easier when wearing facemasks (Figure 90).



Figure 90 Flyer made for people with hearing impairment in order to help them communicate with people who wear masks.

AUDIO

No information was gathered concerning the use of audio messages to transmit the COVID-19 to people with hearing impairment.

2.4.2.5 INITIATIVES DIRECTED TOWARDS PEOPLE WITH VISUAL IMPAIRMENT

VIDEOS AND VISUAL CONTENTS

The respondents of the survey highlight the inadequacy of the visual material for people with visual impairment. Indeed, for people with visual impairment, the visual graphics should have more contrasted colours and bigger fonts.

Furthermore, visual contents such as pictograms should be adapted for the screen-reading software used by a lot of blind people which means a text should always describe the image in details so the person can have the experience as close as possible to that of a person who has no visual impairment. Videos should also be audio-described in order for blind and visually people to get a full experience of the inclusive materials. Nonetheless, no organisation has shared their adaptations with the ICC French-speaking team.

TEXT INFORMATION

Like for the images and graphic contents, texts should be adapted for the screen-reader software. However, no material was received nor gathered by the team.

AUDIO

Some organisations have produced or shared audio materials on their websites. Those are initially destined for foreign-language speakers but can also be used by blind people. In addition, the Municipality of Seraing has made adaptations on its website and proposes an audio-option for an article about the materials developed by the AViQ (Figure 91).



Figure 91 Print screen of the article that can be audio-read on the website, Municipality of Seraing.

2.4.3 ORGANISATIONS' OWN INITIATIVES TO MAKE COMMUNICATION CHANNELS OF COVID-19 COMMUNICATION MORE ACCESSIBLE

2.4.3.1 INITIATIVES DIRECTED TOWARDS GROUPS WITH LOW SOCIOECONOMIC LEVELS AND/OR LOW LEVELS OF HEALTH LITERACY

Not many more information than that already presented in the previous sections was shared with the research team. Yet, a few documents that were nevertheless provided and will be presented and discussed in this section.

First of all, flyers and posters were produced in order to be able to print them in a paper version. Indeed, the digital divide has been mentioned many times as an important dimension to consider when choosing the information dissemination channels. Thus, the use of non-digital channels appeared to be important for the organisations from which we received material. For example, the municipality of Charleroi distributed paper versions of the flyers it produced in medical centres, pharmacies, CPAS, "citizen spaces", retirement homes and municipal day-care centres. The latter explained, in the document they shared, that these flyers were widely distributed. They were much appreciated by the citizens who could take them home and/or pass them on to relatives. On the contrary, the posters, displayed in public places, were not as effective according to them. Indeed, public places were less frequented during the pandemic. The main challenge during the crisis was (and still is), in their opinion, to get the information into the homes of the people (especially those with less access to the internet and digital technologies). With this goal, the municipality of Charleroi (in collaboration with OSTA Carolo, the Sambrienne and an association of syndicates of private buildings) set up an information campaign in the apartment's buildings of this city. Specifically, the property managers ("syndics") first received information about the important hygiene measures to be taken in the common areas of these buildings. They then received flyers to put in the mailboxes of the residents. They also received posters for the common areas. The desire to identify, within the framework of this project, "health ambassadors", at the interface between the building managers, the residents and the professionals, was mentioned. Their mission would be to inform and raise awareness in their neighbourhood but no further details were given in the document on the progress of this project.

This desire to be "as close as possible" to the target audiences and their living environment is apparent in other shared initiatives. For example, ESPACE P..., working with sex workers, produced posters to put up in brothels and brochures that were distributed to these people directly. Some municipalities have also broadcasted messages on local television channels, such as the municipality of Charleroi and the municipality of Arlon. According to them, television is sometimes viewed more and more accessible than the Internet pages. Here too, local channels, probably closer to the needs and living conditions of citizens, are favoured.

Finally, by browsing the websites and reading the few documents sent by the organisations, it seems that a lot of information has been circulated via social networks, especially via the Facebook pages of organisations working close to these target audiences.

2.4.3.2 INITIATIVES DIRECTED TOWARDS FOREIGN-LANGUAGE SPEAKERS FROM DISADVANTAGED SOCIOECONOMIC BACKGROUNDS

Almost no information on initiatives undertaken to make the communication channels more accessible to this group were received by the research team. The only information received agrees with one of the main findings of the previous section: channels close to the people, bringing the information directly into their living environments, seems effective.

2.4.3.3 INITIATIVES DIRECTED TOWARDS ENCOUNTERED PEOPLE WITH HEARING DIFFICULTIES

According to several organisations, the accessible information for people with hearing impairment are broadcasted on television channels around midday which makes it difficult for working people to get access to it. Therefore, organisations have created Facebook® pages dedicated to COVID-19 people with hearing impairment (see Figure 92 for an example). This channel is one of the preferred ones due to its easy access and the possibility for people to share their experiences and testimonies.



Figure 92 Print screen of the Facebook® page Corona LSFB.

Another channel used by organisations is the “face-to-face” contacts with people from their target groups in order to answer their concerns in the most efficient way possible.

2.4.3.4 INITIATIVES DIRECTED TOWARDS PEOPLE WITH VISUAL IMPAIRMENT

As previously highlighted, organisations stressed out the importance for the federal government to acknowledge the “digital divide”. Indeed, the governments have spread their communication mainly through digital channels. However, numerous people in the target groups do not have access to the internet or digital technologies. Even more, for people who have access to the technologies, the websites are not always adapted for the screen-reading software according to the standard for European Web Content Accessibility Guidelines⁴⁵. To meet the conformity of the guidelines, the websites are required to provide certain kinds of services:

- An alternative text option for all images with allows screen-reading software make an audio description of the visual contents (graphs, pictograms, etc.)
- A live caption and a transcript that describes all of the audio material for videos
- A hyperlink link label explaining what lies behind the links listed in a document
- A transcription of audio and video contents

⁴⁵ <https://wikis.ec.europa.eu/display/WEBGUIDE/02.+Content+accessibility+checklist>

- Format sections and subsections should be layout as headings in order for the structure to be understood correctly by screen-reader software.
- Lists and tables should be formatting in order to be found and consulted in many different

The organisations and authorities should therefore be attentive to comply with these standards in order to make information accessible for people with visual impairment.

2.5 SUMMARY OF KEY FINDINGS

To sum up, the primary aim of this research is to develop guidelines for an inclusive crisis communication strategy that considers the specificities of the population living in Belgium. For this purpose, scientific, practice-based and user-based evidence are being analysed. This report summarises the findings based on the collection and analysis of reported barriers, and specific practices and material to overcome such barrier, produced by organisations working with specific target groups in Wallonia and Brussels. The target audiences are people with sensory barriers, more specifically people with hearing impairment, people with visual impairment, and publics who face linguistic, cultural and/or socioeconomic difficulties and/or whose level of literacy is low.

In the following section, we first provide a summary of the main points of each part of this report: survey, reports sent by the organisations, meetings and the screening of their websites. We then present some general recommendations based on the key elements extracted from the analysis of the materials.

2.5.1 SUMMARY OF KEY FINDINGS FROM THE SURVEY AND THE MEETINGS

A total of 147 organisations were invited to participate in this survey. Of these, 48 organisations completed the survey. The latter conduct their activities mainly in Wallonia (87.5%) but also in Brussels (45.8%) and Flanders (6%). The organisations mainly work with people with low literacy skills (47.9%), with people from immigrant backgrounds (41.7%), with French-speaking people with low socioeconomic status (39.6%) and with foreign-speaking people with low socioeconomic status (35.4%). A smaller proportion of the organisations surveyed works with people with hearing impairment (29.1%) and people with visual impairment (22.9%). Other audiences, including people with other forms of mental or physical disabilities, elderly and young people, citizens more generally and front-line professionals, also emerged as target audiences with specific needs.

50% of the respondents were aware of federal government communication initiatives. Their levels of satisfaction were 3,11 and 3,33 for the forms and the channels respectively, on a scale from 1 to 6. A great majority of the respondents (87,23 %) of these organisation considered that their target groups encountered difficulties related to the form of the government crisis communication. This figure was slightly lower for the barriers related to channels, with 79,17%.

The organisations were asked how they had become aware of their audiences' difficulties. Forty percent (40.9%) of the respondents were made aware of the barriers related to the form through their professional practice, while 34.85% said that these barriers were directly reported to them by their target groups. Regarding the channels, 43,86% of the respondents were made aware of the encountered barriers, both through their own observations in their professional practice, or

because the some difficulties were directly reported to them by their target audiences. In addition, contacts with front-line professionals (such as health care providers), was mentioned several times as a way of becoming informed about these difficulties.

Certain barriers, both in terms of the form and the channels used by the federal government, were highlighted by respondents working with different target groups. Therefore, as a result of this survey, some barriers that are common to all the target audiences were evidenced. The first barriers common to all groups concerns the **complexity of the messages**. It was emphasised that the messages (textual or oral) are often too complicated to be understood by the target groups. The vocabulary used was said to be too technical and/or abstract. Sentences were reported to be often too long. Moreover, the diagrams and figures were presented as being often unintelligible to a significant portion of the people from these groups. **Easy Language (FALC)** was mentioned many times as relevant to overcome these barriers.

The organisations working with foreign-language speakers, people with low health literacy and people with hearing impairment, mentioned that the **images and pictograms** used in many communication supports, although interesting to use, are often not clear and explicit enough, and sometimes even misleading.

Another general difficulty mentioned was the **excessive amount of information available**. This concerns the amount of information contained in a single media. According to the respondents, the communication products are sometimes unnecessarily overloaded and do not always go straight to the point. This also refers to the amount of information generally provided by the federal government. For example, the amount of information on www.info-coronavirus.be makes the navigation on the website particularly complicated for most of the target groups. According to the respondents, The large amount of information disseminated has led some vulnerable people to lose control, with a lack of adherence to measures as a consequence. For example, some people within the target groups may have turned to simpler and reassuring information, sometimes found in fake news.

Moreover, it has been acknowledged that in addition to the amount of materials to inform about COVID-19 being enormous it is also scattered, which makes it hard for a lot of people to understand and follow everything. It is even more the case for people who do not speak French and/or people with low health literacy who come from socioeconomic challenging backgrounds. Hence, some organisations took initiatives, such as the flyers made by the Municipality of Charleroi or the information sheets developed by Inclusion asbl, to **increase perceived consistency**. Indeed, acceptance of the measures was sometimes complicated due to the messages being told as injunctions without a real **explanation of the reasons why**.

The federal government's communication has been disseminated mainly through **digital channels**. However, numerous people in the target groups do not have access to the internet or digital technologies. The "digital divide" has, according to our respondents, not been sufficiently taken into consideration by the federal government. Thus, the www.info-coronavirus.be website is little consulted by the target audiences of this study. Similarly, the traditional media (television, radio, press) are not accessed and/or accessible to all of the groups. The most vulnerable and/or isolated people seem to face more difficulties in this access. Furthermore, most of the associations working with people with hearing impairment mentioned that the **timeframe in which information is shared on TV (around noon) is not compatible for people who are working during the day**. It should therefore be **broadcasted as often as it already is for the rest of the**

population. This is also one of the reasons why the preferred channel is Facebook® where a few pages were created for people with hearing impairment to get their information from but also to share testimonies with each other.

Other proximity channels should therefore be favoured, according to our respondents. It was advised to involve community intermediaries and favour local communication instead of or in addition to the mainstream communication. More generally, **diversifying the communication channels** has been suggested, in order for the information to reach all people.

A few more general observations were made by the organisations who participated in the survey. The recommended measures were perceived to be too abstract and difficult to transpose to the realities faced by more vulnerable people in their everyday lives, especially for individuals living in more precarious environments. This was noticeable in some texts, images and channels used. Moreover, the tone used in these materials was sometimes criticised for being too injunctive, infantilising or stigmatising. This would lead to mistrust amongst the more vulnerable and isolated groups. It was then noted that **people (or groups of people) cumulating different factors of vulnerability** (for example foreign-language-speaking people with visual impairment) seem to have been particularly discriminated in the access to communication messages. Meetings with organisations highlighted the importance of investigating communication issues with other understudied groups, such as people who have a good literacy level but resist to change and denigrate the messages within their communities.

In addition, the emergency inherent to the crisis can be difficult to reconcile with **timely implementation of actions adapted for specific publics**. As a result, these publics may be considered and addressed in a second stage, notably due to the delays of the administrative and logistical steps necessary to organise the specific communications.

Organisations suggested that no matter how important, the crisis communication should not be the only aspect to be studied when researching the consequences of the pandemic. They also shared their concerns about the link that may be made between communication of and adherence to measures and suggested that the importance of **adequate communication should not be reduced to an instrumental goal to increase adherence in target groups, but should support informed and meaningful decision-making processes instead**.

Furthermore, they emphasised that it is hard to dissociate the form and diffusion of messages from their actual content, if the messages are to reach the public. Even more so they suggested that the **public should be put at heart of the process when developing communication tools** for them.

Some organisations pointed to the shortcomings of an **undifferentiated communication that yet affects audiences in a differentiated way**. As a conclusion, they insisted that messages should be adapted in different ways to support people in their decision-making and adaptations in their everyday lives.

In addition to the common findings that would apply to all groups, some specific recommendations were issued in relation to some specific barriers encountered by the different groups:

- Foreign language materials were not easily found by **foreign-language speakers** with low health literacy.

- **People with hearing impairment** appreciated that the press conferences were translated into sign language but the flow of information was sometimes too fast and difficult to follow in sign language. Moreover, organisations stressed that the timeframe in which adapted and accessible information is shared on TV (around noon) is not compatible for people with hearing impairment who are working during the day.
- **People with visual impairment** mentioned that visual materials were not always adapted: the contrast was not always strong enough, the videos containing images were not always audio-described and the format of the supports was not always adapted to text-to-speech readers. In fact, they said that the website www.info-coronavirus.be does not fully comply to the European Web Content Accessibility Guidelines which makes the accessibility to the information challenging.

In the last part of the survey, organisations that completed it were asked if they had taken initiatives to address the barriers encountered by their target groups regarding the accessibility of COVID-19 related messages. Most of these organisations said they did (72.9% of them). More precisely, 54% of these organisations had made some **adaptations or created their own communication products**. These adaptations and/or new materials include **translations of existing materials into several languages (including sign language), re-sharing of information and materials through more local and/or specific networks (including social networks), design of flyers, posters, videos, magazines and newsletters; creation of toolkits, opening of new tab on their websites**. Twenty-five percent (25%) of them had informed the federal, regional or local authorities of barriers encountered by their target audiences. A slightly smaller number reported to have carried out evaluations (22,9%), surveys or written internal reports (22,2%) related to inclusive crisis communication. However, the evaluation reports were not made available to the research team.⁴⁶ In addition, other types of activities had been implemented by these structures: setting up hotlines, Facebook® pages and/or email addresses to answer questions; distributing newspapers to homeless people; organising information sessions and roundtable discussions; meeting the target groups directly; collaborating with frontline professionals.

2.5.2 SUMMARY OF KEY FINDINGS FROM THE REPORTS AND WEBSITES SCREENING

Generally speaking, although the accessibility of the crisis communication materials was thought to need improvement, most organisations were satisfied with the efforts made by the federal government to inform as many people as possible. Nonetheless, adaptations were made by many organisations to maximise the inclusiveness of the communication products. The main adaptations and recommendations made by the organisations are summarised hereafter for each target group.

2.5.2.1 PEOPLE WITH SENSORY BARRIERS

The best practices, adaptations and advocacy letters received from certain organisations or retrieved from their websites lead to the conclusion that although the federal government undertook positive measures in terms of accessibility of the communication materials (LSFB interpretations, pictograms, COVID-19 hotline, etc.), there is a **need for a step-by-step evaluation of these initiatives to document and perpetuate the positive achievements**. These reviews should be made with experts(-by-experience) of the disability sector, as advocated by the CAWaB.

⁴⁶ Although the existence of such material was mentioned by some respondents when they filled in the questionnaire, no such material has been provided to the research team. This type of material could therefore not be included in our analysis, which is a limit of our study

Most of the **“easy to read and to understand”** and **LSFB** products are currently being developed by the organisations themselves which tends to demonstrate there is still a **lack of proper accessible communication materials from the federal government for people with disabilities**. Therefore, the CAWaB (which counts more than 20 organisations specialised in disabilities) who participated in the project is advocating for those good practices to become the norm when inclusive communication tools are being created.

In terms of difficulties encountered with the form of the information transmission, associations working with people with hearing impairment often value the importance of **translations made by native LSFB interpreters** (which was also implemented by the federal government during the press conferences). However, the creation of new COVID-19 related words might make the understanding of official communication complicated, which is why specialised organisations set up initiatives such as **video summaries** of the federal government press conferences. Moreover, since not every person with hearing impairment is able to understand sign language – which is especially the case for older deaf people who are oralists⁴⁷ or people who lost their hearing abilities due to their age – **subtitles** have a considerable importance in the communication. Nevertheless, some television channels often set their information title banner above the subtitles and their logo overlaps the interpreter’s image which makes the adaptations barely efficient or even useless in some cases. For more efficiency, the **ratio between the interpreter and the rest of the screen** should also be revised upwards so the **LSFB adaptation is a third of the full screen size**.

The **inadequacy of some pictograms** made by the federal government was also highlighted. They are not self-explicit enough and therefore do not make sense for auditive impaired people unless they can read the sentence that accompanies them. However, as mentioned in a previous section, people with hearing impairment often encounter difficulties with the written language notably because of the different lexicons and grammar between LSFB and French. The **visual contents should therefore be more detailed and self-explicit** for a better accessibility. Universal symbols should be used, for everyone to understand them. For people with visual impairment, the **visual graphics should have more contrasted colours and bigger fonts**. They should be **adapted for screen-reading software**, as these are used by a lot of blind people. This means that a text should always describe the image in details so the person can have the experience as close as possible to that of a person who has no visual impairment.

Concerning the barriers met with the channels of the federal government inclusive communication, some organisations advocate for a **digital access equity to be ensured**. On the one hand, not everyone has access to a computer nor to the screen-reading software; on the other hand, for those who have access, the websites do not always **comply with the European Web Content Accessibility Guidelines** which makes the accessibility to the information very challenging. It is the case for the official website www.info-coronavirus.be.

⁴⁷ Deaf people who were taught to speak orally and read lips.

2.5.2.2 PEOPLE WITH LINGUISTIC AND/OR SOCIOECONOMIC AND/OR HEALTH LITERACY BARRIERS

Adaptations of the form of the inclusive crisis communication are mostly composed of “**easy to read and understand**” materials which can be used for people with a low literacy level as well as for foreign-language speakers or people with disabilities.

Videos were also produced with youngsters from cultural and socioeconomic challenging neighbourhoods to inform their peers about COVID-19 in a correct way to help avoid the propagation of the virus due to fake news shared on social media. To **involve the representatives of the target groups in the communication process** was cited many times as an important process to increase relevance and accessibility of the produced material.

Visual contents such as pictograms have also been reported to be efficient when they have enough details and not ambiguous. They can be accompanied by small and easy to read texts to heighten the messages and their understanding.

As for cultural and linguistic barriers, specialised services produced **translations** (written or in the form of audio messages or videos) **made by, or at least with, native speakers** in order for the information and its source to be as trustworthy as possible for the target groups. The importance of the communication being shared in the group’s language is also important for the latter to get all the subtleties of the message. These findings show the relevance of **high-quality translation** in informing foreign-language speakers.

When considering the channels through which the communication should be made, many organisations highlighted the impact of a peer or intermediary approach. This personal communication approach led by people who are seen as trustworthy by the group is said to be really efficient. This is why some adaptations like flyers and posters have been distributed to pharmacists or general practitioners, who are in closed contact with and are trusted by. It has been said by some associations that known local experts, such as doctors, and community members are also very reliable sources to transmit the information to the population who has cultural and/or socioeconomic barriers and/or a low literacy level.

Finally, according to some organisations who participated in the study, the majority of people with socioeconomic challenging backgrounds have access to a television, this is why they have been creating **partnerships with local TV channels** to overcome the accessibility issues of the federal government communication. It is also the case with the **COVID-19 dedicated hotline** created at the beginning of the pandemic.

2.5.3 GENERAL RECOMMENDATIONS

The many insights gathered through the questionnaire, online meetings, materials collected and sent by the organisations lead to some general recommendations to improve the efficiency and inclusiveness of the communication materials from the federal government for the target groups of this research project.

First, the accessibility of **timely governmental communication** should be taken into consideration from the start. As communication materials are made for the general population, adaptations for specific groups should be thought of and **developed within the same timeframe to ensure the efficiency of the transmission of the information**.

Some organisations mention how numerous and scattered the information is and how much of an impact it has on the population and especially on specific groups as they are exposed to a great number of messages in the form of injunctions, the purpose of which they do not fully understand. To compensate for the lack of meaningfulness some organisations made their own adaptations, thus adding even more materials to those already in circulation. Therefore, it could be relevant for **organisations and the authorities to form partnerships in creating fewer but more accurate and efficient inclusive communication products.**

It is utterly important that the messages produced be **as simple as possible**. They should not include superfluous information. Sentences and texts should be as short as possible. **Simple, clear and self-explicit images are recommended, as well as an airy layout. The use of Easy Language is particularly relevant for all target groups of this study.** Pictograms should however be as detailed and unambiguous, yet as universal, as possible in order for the majority of people to understand them properly without having to read the sentences that often lies underneath the images, as many people in the target audience of this study have difficulties with written French language.

As many adaptations were made directly by the organisations working with the target groups, it should be noted that there is a **lack of proper access to inclusive governmental communication**. It is advised to involve representatives of the target groups in the very processes of defining contents, forms and channels of the communication products. Indeed, several organisations pointed out that the **target groups (or end-users) were not sufficiently consulted** during the crisis and that the federal government's inclusive communication was perceived as infantilising for specific groups. Consulting the latter could allow to develop a more inclusive and adapted to their needs in communication.

The results of this study show that **diversifying the form of communication materials** (self-explicit images, audios, videos, digital and non-digital materials such as flyers, brochures, magazines) is needed. For the messages that are currently not accessible for foreign-language speakers, people with hearing impairment, or people with visual impairment, it is necessary to **ensure that adaptations be made**. For example, **audio description and sign language interpretations and subtitles can be added to pictograms or videos** to improve their accessibility for people with sensory barriers.

Diversify communication channels (internet pages, social networks, television, radio, press, community relays, personal communication) is recommended. Local and/or face-to-face communication seems to be particularly efficient for foreign-language speakers and for people from socioeconomic challenging backgrounds or/and who have a low literacy level. It has been highlighted that **the dissemination of messages by community intermediaries is considered to be very effective**. As everyone does not have the same digital access, it should be ensured by the governments that they be materials available through **channels that do not require an informatic access or internet**.

3 ROUNDTABLE DISCUSSIONS: EVALUATING COMMUNICATION STRATEGIES WITH INTERMEDIARIES IN FLANDERS

3.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Flanders by **Thomas More** in which roundtable discussions were conducted with intermediaries to evaluate the COVID-19 communication strategy by the federal government and the accessibility of specific communication products.

This chapter is based on the content of the following project deliverable report:

Talboom, S. & van de Veerdonk, W. *Internal report on insights roundtable discussions for Flanders. Report on Work Package 3.* 15 June 2021.

3.2 METHODOLOGY

In April 2021, four roundtable discussions (RTD) were organised with intermediaries from advisory board organisations in Flanders via an online meeting environment. Three RTDs took place via Microsoft Teams. The RTD of people with a hearing impairment was held via Zoom. This online environment is better equipped to handle the translation from Dutch to Flemish Sign Language (Vlaamse Gebarentaal, VGT) and vice versa and the use of live subtitling. During these RTDs, current communication products were discussed in terms of form and dissemination (channel). Furthermore, the flow of information from the government to the target group was discussed. The interview guide that was used for the roundtable discussions is presented in Appendix J.

The participants were selected by a group effort between colleagues of the University of Antwerp and Thomas More. The criteria for selection were a well-balanced and heterogeneous group of maximum 12 persons. This balance was sought between policymakers, intermediaries, and professionals in the field. After establishing a date for the RTD with the participants, informed consent forms were sent to them via email. The forms were all signed before the RTD took place.

Participants were pseudonymised in the RTD transcriptions while their organisations were mentioned by name. A participant's name is coded by a number and these numbers are mentioned throughout the report. The key (linking names to the corresponding numbers) was stored separately from the transcriptions. When this report is published the video recordings of the RTD will be deleted according to ethical regulations.

RTDs were video-recorded and transcribed verbatim. The transcriptions were analysed and provide the input for this report. The analysis occurred separately between both authors to obtain the most objective results.

Prior to the RTD, we've provided the participants with a drop-off of communication products. Participating intermediaries received a short online survey in which we asked them some initial questions about crisis communication products. This approach was chosen:

- efficiently evaluate the relatively large amount of communication products;
- adapt the topic list for the RTD to these initial answers;

- evaluate the staging-website where all products of the Belgium government are presented.

3.2.1 SELECTION OF MATERIALS

Based on the overview of materials and the subsequent internal analysis and discussion (see PART 3 in this report), a set of materials was selected to be used as a basis for the roundtable discussions (RTD).

Two “units” were selected:

- **Unit 1: urgent information on new measures.** This information is changeable and needs to go out quickly. Clear, minimum priorities must therefore be set for translation and retranslation.
- **Unit 2: Durable information on prevention and health.** For this type of information, more time is available and more attention can be paid to a wider variety of accessible forms and translations via a wider selection of channels.

The units developed (see below), contain:

- Existing materials.
- Existing materials, slightly adapted to highlight certain features to be discussed in the RTD.
- Different alternatives of the same information to be contrasted in the RTD.
- The current info-coronavirus.be website.
- A newly developed staging-website, on which the materials for the RTD are grouped and structured for evaluation.
- All products are provided in French and Dutch.

The following products were selected, developed or made available by Atlas.

- **Audio versions of new measures:** audio versions were created based on written language style (the way it is currently provided by Atlas), an alternative version in spoken language style and for each of these versions, one was created with human voices and one with synthetic voices.
- **Infographic Golden Rules:** Atlas provided the original jpg, and added an alternative that includes a voice-over as well, for easier distribution via social media, and to increase its accessibility for people with low literacy skills or people with visual impairment.
- **PowToon-Video face masks:** The existing video was extended with: subtitles, sign language, an audio introduction and an audio description.
- **Infographic vaccination:** The vaccination brochure was made as accessible as possible for screen readers, in collaboration with experts.
- **Pictograms:** a set of alternative pictograms in different styles was selected, to contrast and evaluate preferences.
- **Video on Quarantine:** a video with Dutch text on screen, but with alternative audio in French and Albanese.
- **Press conference summary in Flemish Sign Language (VGT):** a video was selected, that offers a summary of the press conferences. This video was provided on a voluntary basis by Visual Box

3.3 RESULTS

3.3.1 TESTING OF THE OFFICIAL WEBSITE INFO-CORONAVIRUS.BE VIA INTERMEDIARIES

The website info-coronavirus.be bundles all information for the public (via intermediaries) in different languages. The accessibility of the website for intermediaries was explored, as well as how they perceive the usability of the website for the target group. Consult Table 20 for an overview of the results.

Note: these results are based on opinions of a relatively small group of intermediaries. Therefore, the results must be interpreted as “first impression” and not as a formal evaluation.

The first results indicate that intermediaries could find a product on the website if asked to do so, as only 2 out of 30 could not find the brochure. The search filter function on the website was used moderately to find the brochure, as 12 out of 30 respondents did not use it. 50% of the participants thought the search function was useful. When asked whether the target group would be able to find their way to the website, 11/30 did not think so. While 15/30 thought this could only be the case if adaptations were made.

Extra information about the user friendliness of the website will be shown visually in the Appendices (see Appendix K).

	RTD People with a visual impairment (N=7)	RTD people with an auditory impairment (N=5)	RTD vulnerable Dutch & other language speaking people (N=18)
After providing the link to the homepage of info-coronavirus.be could one find the brochure about vaccination?	Yes = 6 No = 1	Yes = 5 No = 0	Yes = 17 No = 1
The test page contains a search filter which allows you to sort the communication material by subject, language or type of product. Did you use this function when searching for the brochure?	Yes = 2 No = 4 Missing = 1	Yes = 3 No = 2	Yes = 11 No = 6 Missing = 1
What is your opinion about the search filter?	Unnecessary = 2 Useful = 2 Other = 2 Missing = 1	Unnecessary = 0 Useful = 4 Other = 0 Missing = 1	Unnecessary = 0 Useful = 8 Other = 9 Missing = 1
Do you think the target group will find its way on the website?	Yes = 2 Yes, if adapted = 4 No = 1	Yes = 1 Yes, if adapted = 3 No = 0 Missing = 1	Yes = 0 Yes, if adapted = 8 No = 10

Table 20 First impression usability data of the website info-coronavirus.be.

3.3.1.1 OPINION ABOUT THE SEARCH FILTER FUNCTION (“OTHER ANSWERS”)

- **RTD people with visual impairment:** The search filter function is useful, but a textual introduction of the search filter function should be made available. With a screen reader it ‘reads’ just as an ordinary title and one discovers only at the end of the page that there was a drop-down menu available.
- **RTD vulnerable Dutch / foreign-language speaking people:** Summarised, intermediaries do not find the search function useful for low-literacy target groups but do see added value for themselves. However, the search function should be presented differently. Suggestions include using images or clear buttons at the top (instead of a drop-down menu) and making a language selection available before showing the website and filter function. A broader user test should be applied to have more certainty about the effect.

3.3.1.2 WHAT NEEDS TO BE ADAPTED FOR THE TARGET GROUP TO FIND ITS WAY ON THE WEBSITE?

- **RTD people with visual impairment:** Voice-over software makes it possible for the population to access the website, however the website does not seem to be tested on the use of voice-over. The search function cannot be found and not all links are recognised (spoken aloud) by the software. With an iPhone it seemed to be easier but with a MacBook nothing seemed to work. When titles and different buttons are well pronounced by the screen reader, the website will be more accessible to the visually impaired.
- **RTD people with hearing impairment:** Intermediaries point out that the website should have been tested by Any surfer, as government websites should be accessible based on Web Content Accessibility Guidelines (WCAG) AA and best AAA (with translation to VGT) from 2020. Three suggestions are made to make the website more accessible: 1) Make use of more icons to help deaf signers (who might give up quickly at the sight of a lot of text) on their way to videos in VGT, 2) Make sure that the “keyword”(i.e., ‘brochure’) is directly visible/findable on the website, 3) If you click on the brochure, then follow up with choices that suit the individual/target group.
- **RTD vulnerable Dutch / foreign-language speaking people:** Intermediaries felt that the layout and structure of the presented website could be improved. There is a lot of text which makes it a dense page to interpret, especially for people with low literacy skills. Intermediaries had to scroll too much and thought important things didn’t stand out. It was suggested multiple times to remove non-relevant information or relocate it somewhere else on the website. Some would even remove everything below the search filter function to make it stand out more. Additionally, structure and layout can be improved by adding more visuals, such as pictograms or recognisable pictures per section, colours for important sections or arrows to highlight the filter function. An overview of the languages at the top of the page would help to make it more accessible for foreign-language speakers. The sooner they see a familiar language, the better. A read-aloud function in Dutch and other available languages would help for people who cannot read. The level of Dutch used on the website is too advanced and it was pointed out that one needs to be very proficient in languages to find the button ‘info for low-literate’.

3.3.2 FLOW OF CRISIS COMMUNICATION AND CHANNEL USE

In the next section we discuss the results from the RTD regarding the flow of information from the government to the target group. Additionally, the channels used or most optimal to do so according to the intermediaries will be discussed.

3.3.2.1 PEOPLE WITH VISUAL IMPAIRMENT

Regular channels but important digital barriers. As for the target audience with an auditory impairment, the RTD with people with visual impairment shows that the type of channels used by this target audience to inform themselves about COVID-19 does not differ that much from what is used by people without a sensory impairment. Television, radio, social media and accessible newspapers are listed as examples.

"I think that that the very first and most basic information that these actually (<inaudible>) via broadcasts on radio and television. I think that's the, the first thing. And also, where people can most easily acquire and get acquainted. "

(RTD people with visual impairment - P1)

"Erm, besides television and radio, yes, also newspapers that have been made accessible to us, but also all the ways that sighted people also consult I think: The social media, both Facebook, Twitter, euh, what else have you got? I limit my website use, because I was already bombarded with information, but I think we use all the usual channels. "

(RTD people with visual impairment - P2)

The Coronalert app is also used by the target group and has been identified by participants of the RTD as an interesting potential channel for distributing audio files. The material made available through the government website is not used by this target group.

A considerable amount of the information disseminated about COVID-19 can be found online.

This creates some additional obstacles for the visually impaired. For example, according to the participants, a large proportion of the people with hearing impairment - an estimated 70% - are in the age group 65+, an age group with lower digital skills and competences. Therefore, sufficient attention must be paid to the dissemination of messages via non-digital channels. Not every organisation at the table is actively spreading COVID-19 information. Of the organisations that do this, some - in the case of durable communication - try to avoid exclusion by sending the same information to all members simultaneously and through a mix of digital and non-digital channels. In case of urgent communication, however, it is not possible to reach all members of an association at the same time. In this case, mailings are used, which excludes the non-digital target audience. In some organisations, urgent information is also passed on to non-digital people by telephone.

However, contact by telephone can only be employed on a small scale. Participants therefore doubt the feasibility of this channel.

"We have a magazine for durable communication, that is offered in different reading formats, (<inaudible>) in spoken form, via Anders Lezen, Braille and in black print. However, the principle is that we also use email, the principle that all members, including those who are not digital, receive the same information at the same time. That's for durable communication, but if it is really urgent, then unfortunately we have to drop a part of our members and then we can reach about half of them by mail, so urgent communication is possible, but aimed at a smaller part of the target group."

(RTD people with visual impairment - P6)

Low digital literacy is the biggest problem when organisations want to communicate urgent information to their target audience. This makes older, non-digital people with visual impairment largely dependent on their network of relatives, friends, caregivers and social workers. People with a limited social network are left out. Although this target group uses radio and television, it remains difficult to convey detailed information via these channels. Consequently, non-digital people have insufficient opportunities to search for additional, more in-depth information themselves.

Younger generations of visually impaired, on the other hand, are online and use this channel to search for additional updates and in-depth information. For them, the digital threshold is not too high, but the accessibility of digital information is a potential obstacle. Finally, a nuance is made between blind people who would use Facebook more and people with visual impairment who rely on Instagram and Twitter for information.

3.3.2.2 PEOPLE WITH HEARING IMPAIRMENT

People from the target group use the same communication channels as hearing people, but their needs are different. The website info-coronavirus.be is not frequently visited by people with hearing impairment.

The channels that the target group uses and that were discussed during the RTD include **television, paper and digital newspapers, social media** (and specifically Facebook) and the VRT NWS app. Well-educated people inform themselves via newspapers. The pandemic creates additional challenges for people with hearing disabilities who rely on television broadcasts to keep themselves informed. Information processing by people with hearing impairment is based on intermodal integration: visual information conveyed through mouth movements is linked to sound remnants. This form of speech processing is not possible if, for example, face masks are worn during current affairs programmes on television. This makes alternative forms of accessibility - such as subtitling - even more important. An important channel for deaf people is the Facebook page "Corona in VGT", a place where volunteers share and search for information. **Being a member of an association for people with hearing impairment** often ensures that people are better informed. However, there are still many people who belong to the target group but who are not affiliated with an association. This group of people should not be overlooked.

There is no such thing as the person with hearing loss and organisations are therefore advocating a for diversified communication package. During the RTD, participants repeatedly emphasised the heterogeneous nature of the target group and the importance of taking this into account when developing communication material for people with hearing loss. Not only does the degree of an auditory impairment vary greatly, people's language and communication abilities also differ greatly. For example, not everyone with an auditory impairment automatically uses VGT.

"First of all, I would like to make a big distinction within the group of people with hearing impairment. I think that is very important. You have a group that uses the Flemish Sign Language, but you also have a group that communicates through spoken language and therefore will collect their information in a different way."

(RTD people with hearing impairment - P1)

Like the people without an auditory impairment, the group of people with hearing impairment is equally diverse in terms of socioeconomic characteristics such as educational level and

migration background, and the prevalence of additional impairments such as visual impairment. All these specific subgroups therefore differ in the way they seek and receive information about COVID-19.

"What do deaf seniors need? What does another target group need? Deaf non-Dutch speakers, for example? Deaf people with a migrant background who cannot speak Dutch very well? Then we must make sure that we do not use expensive words, that we make sure that the information is given as visually and as clearly as possible. You then have this target group of deafblind people; these are all different target groups that we have to consider and of course this takes a lot of time and research to know what each target group needs."

(RTD people with hearing impairment - P7)

Just as there is a great diversity of information available for the very heterogeneous group of hearing people, the participating organisations and experts-by-experience also want an offer for the group of people with hearing impairment that is at least as diverse. Every target group needs and has the right to tailor-made information. For the time being, however, the organisations lack insight into the needs and wishes of each specific sub-target group and they mention the need for additional research. For example, organisations lack guidelines for reaching people with deaf blindness. It is therefore important that the government coordinates sufficiently with experts-by-experience or their associations to determine to what extent current communication also reaches these sub-target groups.

Another specific distinction concerns **seniors who are D/deaf and non-digital people who are D/deaf**. Several participating organisations rely heavily on social media, but at the same time indicate that this channel excludes people with low digital literacy. Some organisations therefore distribute their newsletter both digitally and on paper. Especially deaf seniors in the age category 70+ are often mentioned as a target group that is harder to reach. Yet the deaf community takes great care of each other.

"[...] and there they see very strongly that deaf people really do take care of each other, that it is just made sure that deaf people pass on the information to deaf seniors. So, there is a very strong sense of solidarity within the deaf community."

(RTD people with hearing impairment - P7)

In addition to volunteering on an individual and informal basis, participants also identified some potential channels for reaching deaf seniors. Newspapers are read but not in detail and mainly large print and headlines. Therefore, television was suggested as an important channel to get information to this target group, especially at the times just before or after the 19:00 news. It was suggested to broadcast sign language messages on television (e.g., during the BAN blocks) with a dual purpose:

"Those messages of general purpose, as person 7 already said, being used in the broadcast time, those would indeed be very good moments to reach the deaf seniors and just to make all people more aware of the existence and importance of Flemish Sign Language, so that all deaf people see that information and that they know, look, we are being thought of. Our deafness is an invisible disability, but by putting it on TV in Flemish Sign Language, many more people will also see, ah, there are also deaf people in our society, those face masks must have a big impact on their ability to understand speech. People are going to be much more aware of that."

(RTD people with hearing impairment - P6)

Specifically in the case of urgent communication, the potential importance of formal municipal communication and informal (online) neighbourhood networks was also emphasised:

"I think that the municipalities have an incredible amount of reach towards their residents, so I definitely wanted to mention that as a channel as well. Not only the weekly municipal magazine, which is of course only occasionally, but also a what's, uh, there are various WhatsApp communities or even WhatsApp groups, a Facebook community, or a WhatsApp group that you can join. Again, that probably won't reach all the senior citizens, but it will reach the loved ones of those senior citizens."

(RTD people with hearing impairment - P5)

In addition to a wider range of information products for people with hearing impairment, organisations also point out the importance of **simultaneous information: People with hearing impairment often receive information with a delay**. Currently, live events - such as press conferences explaining decisions made by the Committee - are perceived by the target audience as confusing. In addition to the enormous amount of information to be conveyed, the fact that subtitles lag during live events contributes to a lack of clarity for the target group. For people who can still partially hear, the delay in subtitles is a problem as they try to listen and read simultaneously, which means that not all information can be processed. Therefore, synchronised subtitles in live events are necessary. The presence of a VGT interpreter during live events is well received. But also, for sign language speakers, the enormous amount of information means that not everything is remembered and understood. This is further reinforced by the fact that a one-to-one translation (from spoken Dutch to VGT) is often not possible. A live interpreter quickly offers all the information that comes in, but this is difficult for the audience to digest because in this way concepts are offered for which no clear, fixed gesture is available in VGT.

However, live interpreting situations do not allow for the necessary additional interpretation. During the RTD, organisations addressed the right to simultaneous information and pointed out that their target group also counts on a quick clarification after a live event.

"Not only the lagging of the subtitles and the muddle of the live moment and the live information, I notice that my target group is indeed actively informing themselves as a result, but at a later moment. And that is the point I wanted to make. Of course, we need the same information at the same time and not a day later from the newspaper, and of course things are moving very quickly now. Digital news is very fast, so you can inform yourself the same evening or the same night or morning, but there is always a bit of a delay."

(RTD people with hearing impairment - P5)

"It is very important for sign language users that they get that information at the same time as hearing people. We are not second-class citizens, certainly not, we really want to get that information at the same time. We have the right to it. Hearing impaired, deaf, hearing, sign language or not, it is important that you get the information at the same time. For sign language people, you must provide a Flemish sign language interpreter. This is now being applied by the crisis centre and it is going very well."

(RTD people with hearing impairment - P6)

A summary video in VGT, supplemented by a written text enriched with drawings and symbols, to share after live events, would allow people to process the information at their own pace. Organisations want to meet this demand from their target group but conveying urgent communication messages is seen as a challenge due to limited resources. Organisations use the material provided by the government, but re-translations are always done on a voluntary basis.

Communication material is best developed in consultation with experts and experts-by-experience. A deaf person who is strongly bilingual or a hearing person with good knowledge of the target group understands the language needs of the target group better and can indicate where additional information is needed.

3.3.2.3 VULNERABLE DUTCH-SPEAKING PEOPLE

Organisations around the table that specifically focus on community outreach notice that people inform themselves little through official sources. Information reaches the target group mainly informally through an existing network of friends, acquaintances, family members, neighbours, and members of a (religious) community. People rely on each other and on their network, both physically and online. Intermediaries also indicate that people who are already in contact with support organisations show a much better knowledge and application of the COVID-19 measures. However, an important bottleneck is that in this way information does not sufficiently filter through to people without a social safety net.

Outreach work is essential because people indicated that they were afraid to go outside for fines or infection. Therefore, the organisations sought out people with 'soup on pavement' conversations. These conversations showed that people were at a loss for information and did not know how things should be done.

"But still we saw that the people who come to the activities of De Zuidpoort, where we always explained what the rules were and people were also used to disinfecting hands and distancing themselves, and our activities could go on with many measures, measures that were somewhat different from what had to be done outside. And there we noticed a big contrast between people who came to De Zuidpoort regularly and people who did not. And we noticed this very strongly also when we went on a trip to the sea. People who come to De Zuidpoort a lot were used to disinfecting their hands and so on. People who came with us for the first time just passed each other's coffee cups to drink. I think sometimes we can have a very distorted view of that, of how permeated we may already be with measures, but that without a network..."

(RTD Vulnerable Dutch-speaking people - P7)

A reason for this focus on informal communication, mentioned by several organisations, is the distrust of the target group towards governments and official institutions. A feeling that often prevails when these authorities communicate about COVID-19. This distrust is reinforced when government messages are too coercive.

"The more people get the impression that they are being pushed in a direction, however soft it may be, the greater the mistrust becomes. We have certainly seen that regarding vaccination. Yes, the more people were invited or pushed in the direction, the more resistance there was."

(RTD Vulnerable Dutch-speaking people - P7)

"Perhaps here too, taking into account that people accept what they experience in practice or what they hear from their own network. The word 'must' will evoke resistance anyway. And if it says you have to wear a mask in the shop, many people will say that the shopkeeper himself will decide whether they have to wear a mask or not."

(RTD Vulnerable Dutch-speaking people - P5)

People avoid formal channels and sources, also in their communication with each other. For example, one of the participants indicated that there is hardly any reference to official sources in Facebook groups. Information is only accepted if it is presented to them personally by someone they know.

"And so you have a number of organisations that have good connections and as an intermediary they can sometimes make a different voice heard. But it's a struggle to come to terms with the thoughts that live among all those vulnerable people who assume that if it's official it's not good."

(RTD Vulnerable Dutch-speaking people - P5)

On the contrary, intermediary's acknowledgement that the source of the information product is very important. Many organisations started translating products to the needs of their own target

groups. This could make it unclear where the information comes from. For measures that are enforced by law - rules should be communicated by the government and it must also be clear that they come from the government (e.g., in the form of a government logo). Messages related to more sensitive matters are best communicated by a more "trustworthy" party for the target group. For example, when it comes to infertility, here you do not place a government logo but an authority on the content.

The target group receives information about COVID-19 through various news media. During the RTD, a particular reference was made to the news on television and radio.

At the same time, participants make a few comments. 1) While the news is a source used by the target group, it is important to know that they do not watch it every day. 2) In addition to the distrust in the government, a similar distrust exists in the mainstream media. 3) Finally, Flemish news media also report on COVID-19 measures abroad, which adds to the confusion of the target group.

Organisations suspect that the information material available on the official website info-coronavirus.be is not used by people from the target group. Participants assume that many people do not find their way to the website and that people also find it difficult to apply such generally applicable information to their personal situation. Organisations notice that as a result, many concrete, personal questions come to them by email, via Facebook or that questions about COVID-19 are raised during face-to-face conversations. Asking these kinds of questions - including via social media - seems more accessible than calling an official information line.

"At first with the intermediary I think it is indeed the associations, also the schools where people are educated at that time, for example at the centres for basic education, I have heard from a number of teachers that their students really do ask questions to them. So, they really were the point of contact. Furthermore, at Wablieft we also get questions now and then, especially via email, because we shared our films and files and suchlike in simple language. They would mail us with very concrete questions, like: I had contact with my grandson this weekend and I heard that he tested positive, what should I do now? So very concrete questions that apply to their personal situation."

(RTD Vulnerable Dutch-speaking people - P10)

"We experienced the same thing on Facebook. We also received very concrete questions like: can I do this, or can I do that? And I estimate that the threshold is also much lower to be able to ask that question compared to calling an information line, if you're on Facebook anyway."

(RTD Vulnerable Dutch-speaking people - P7)

Due to budgetary constraints, organisations often have to communicate via social media and SMS, although they prefer to do this on paper. Some organisations developed their own materials that could be used during conversations with people in vulnerable positions. **Oral communication by a confidant, supported by printed communication material, is identified by the participants as the best form of communication for the target group of vulnerable Dutch speakers.** It is important that the person conveying information knows the target group and has their trust. Also, just handing over information is not enough for this target group.

"But it is rather the opposite: not so much that they receive something in the mail and then go to someone somewhere to ask for an explanation, it works much better if someone they trust stands at their door and hands it over. To give an example, there are many street workers who, at the beginning of the crisis, asked the city or municipality if they could distribute the face masks in their neighbourhood. You then have a little present, so to speak, and you can give the explanation of one and a half metres, washing hands and so on. And that works very well because they already know the people; they know the community worker; they partly trust them."

(RTD Vulnerable Dutch-speaking people - P3)

In case of urgent communication, however, verbal transfer of information is not feasible. Participants indicated that in this case - in addition to a permanent deployment of community workers- messages via SMS, messages in WhatsApp groups and phone calls are also used.

3.3.2.4 VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

There are many subcategories of foreign-language speakers. Language alone is insufficient to talk about a vulnerable target group. A distinction based on several factors seems necessary, for example, educational level.

Maximum effort on personal contact. As with the “vulnerable Dutch-speaking” target group, the importance of direct contact with the target group was also emphasised during this RTD. According to the participants, you do not reach people by distributing information through the usual government channels. When messages do manage to get through in this way, the impact is limited. During the RTG, there was agreement that it is better to make maximum use of confidential contacts who are in direct contact with the target group. In this context, the important role of teachers and pharmacists was discussed. In addition, outreach work is also referred to as essential. Organisations actively seek out vulnerable communities. They are present in the target group’s living environment; they provide materials and answer questions through informal contacts. This “small talk” is seen by almost all organisations as decisive and just as important as the communication material itself. In other words, simply sending information is not enough. It is important that people with a bridging function are supported with the right material. You do not reach people in the target group through online tools, but through a conversation. That is why it is important that communication products are printable.

“Something that SAAMO has worked very hard on since March of last year is that we work very outreach-oriented. That means going out on the street with many people to talk to people and to hear what questions they have. We often use the multilingual information provided by the government for this purpose. But what we do notice is that the chit chat is important too. So, it's not just the distribution of information, which I think is extremely important that it is multilingual, and that it is available in many languages is an added value. But that chit chat is important to let people ask their questions, even if they are very basic ones.”

(RTD Vulnerable foreign-language speaking people- P5)

Specifically, regarding the dissemination of urgent information, several organisations around the table focused strongly on direct personal contact. In the first phase, organisations took to the streets en masse. The target group was actively called or addressed via SMS campaigns or mailings. In a later phase, several organisations also used WhatsApp groups to send short, delimited audio messages. Messages were also posted in Facebook groups, as the target group also uses these social media channels to disseminate COVID-19 information themselves.

“[...] We are not “straat werkers” but community workers, but we have used that technique of outreach work from the start. So, from the first communication about the crisis, we made sure there were people engaged in our community work, so there was an open door where people could ask questions. And then almost the entire team of community workers went out on the streets to hand out information brochures in various languages that were available from the federal government at the time. And then, in the neighbourhoods where we work, for example, we held a kind of permanence, also in the entrance halls of the social housing companies, the blocks, to speak to people there, to put it out there as well.”

(RTD Vulnerable foreign-language speaking people - P5)

“[...] At the beginning of the crisis, we called all our clients to have personal contact with them, to ask them if they understood everything. And then in the next phase we put a lot of effort into sharing the

audio messages. And we do this by means of text message campaigns that go out in large numbers to all our customers, and through mailing. But we really do those SMS actions to send very quick messages.”

(RTD Vulnerable foreign-language speaking people - P3)

“Yes, we worked in a very similar way. We also started calling people proactively, because all those official channels are not so suitable for that, for those quick messages. So, we must go for informal things, and we also started calling people.”

(RTD Vulnerable foreign-language speaking people - P4)

Again, it appears that the official website info-coronavirus.be is not used by the target group. Surfing to foreign language material via a Dutch website is often too difficult for many people. This means that an end user cannot search for the relevant information himself but has to do this together with an intermediary. During the discussion, several parties pointed out the potential of the multilingual COVID-19 app "Crisis Information Translated", developed by the Flemish Social and Civic Integration Agency. This app was seen as a possible solution to communicate rapidly changing, urgent information to young people with a migration background.

“About that app, I have also installed the app in the meantime and installed it with a number of people. And I think the cool thing about it is that you can put the app in a different language, so that they themselves can install it with other people; they know which buttons to press. If I install it for one lady, she will be able to install it for her other Turkish friends because she has it in Turkish herself. Because I often find this difficult with other websites, where people who can find things in their own language first have to know Dutch to find the button 'here you will find information in other languages'. And yes, that is difficult to bridge; I don't necessarily know a good solution for that. But then it gets in the way because that means that as a care provider you have to give people that info and they can't find it by surfing the web. So that's the advantage of that app.”

(RTD Vulnerable foreign-language speaking people - P4)

Digital literacy also appears to be an important barrier here. Organisations indicate that it is therefore necessary to continue to invest in bridging figures within a community, who in turn can be mobilised for further information dissemination among peers. It is also essential to maintain a physical point of contact, a literal open door for those for whom the digital is a step too far.

As with the vulnerable Dutch-speaking people RTG, a lack of trust in the government was regularly referred to as an additional barrier in the flow of information to the target group. Mistrust is fostered by the combination of a) constantly changing messages from official channels, and b) the fact that people compare government communication in Belgium with messages from their country of origin. Different messages compete in people's minds and it is not always the message from the government that is trusted most. It is therefore important for organisations that are close to the target group to know which other messages are circulating.

“Yes, what I heard a lot from the groups is that they also found it difficult that the information was constantly changing. Of course, I don't think there is much you can do about it, but it also contributes to what [person X] just mentioned, the trust in information or in the government, that it became more difficult for some groups because they said, yes, first it was this and now it is this and this. Do they know what the virus is? And do they know what to do? And I was the one who could respond and explain that this is the first time we've had this kind of pandemic and that we're in the process of finding out what's going on and what's needed. And then there was a bit more understanding for the changed situation, but it remained very difficult for people.”

(RTD Vulnerable foreign-language speaking people - P12)

“I'm embedded in the Portuguese-Brazilian community in [city]. And then you also see that people are constantly looking at sources from their home country and comparing them with what is spread here. And who is right, etcetera. And I think we have to take into account that people inform themselves in many different ways. For example, if you look at groups of workers who come here who don't take

courses, who don't come to social services, who nobody visits and so on, there's just an overload of information from elsewhere, and very little information from here. So, the competitiveness of the different messages, we need to know what is circulating in terms of information in order to respond to that as well. That seems to me a very important bottleneck."

(RTD Vulnerable foreign-language speaking people - P10)

Regarding durable information, the mail and the waiting room of health care providers were initially mentioned as channels that are suitable for "slow" information. However, a letter sent by post was discussed during the RTD. Even if a letter is written in plain language, it is very difficult for people with low literacy skills to distinguish between an advertisement and, for example, a letter from the government. As a result, the letter does not get the attention it deserves. People do not understand the content of the letter and find it difficult to translate it into what it means for themselves. Even when people can recognise a letter as being important, they often turn to intermediaries for help.

3.3.2.5 TOWARDS A BETTER COORDINATION BETWEEN GOVERNMENT AND INTERMEDIARY ORGANISATIONS

During each of the RTD, there was a very explicit call for stronger, structural cooperation between the government and intermediary organisations with a view to supplying and making accessible communication material available. The communication channels of the intermediary organisations should be used in addition to direct communication by the government to prevent a fragmented information supply and an uncomfortable flow of information.

There is a general feeling among the participating organisations across the four target groups that intermediaries are forced to take on communication tasks that primarily belong to the government. The current communication material often requires translation or addition. As a result, many organisations have adapted (and sometimes developed) products to better suit the needs of their target groups (and their operation). Currently, there is still (too) much reliance on the voluntary efforts of individuals and organisations, both for the development of appropriate communication material and for its transfer to the various target groups. This voluntary work is neither reimbursed nor supported.

"There is no extra budget or time, you just have to manage it. So, all of us, and probably you as well, put in an enormous number of extra hours, but that's not logical at all. So that's what's being looked at very strongly now, for example, the vaccination and what we could do. So, we have to hand them over and we have to call them. We get nothing but assignments, but it isn't feasible."

(RTD Vulnerable foreign-language speaking people - P4)

Some participants had the feeling that when one does not act as an organisation or as a volunteer, little happens for the target group. Realising that crisis communication belongs to the government means that some organisations are currently devoting less time and resources to retranslate communication material, at least compared to the first COVID-19 wave.

"I think it is wonderful what all the intermediaries do and take on, just to reach as many people as possible, but it is the government's task to get the information to all inhabitants in the first place."

(RTD People with visual impairment - P4)

"Yes, organisations and services are trying more and more to re-establish their regular operations, so that there is less room, I think, to take up that function of an intermediary to bring that information to vulnerable groups. It still happens, I don't want to say that it doesn't happen, but I do see a decrease in it."

(RTD Vulnerable foreign-language speaking people - P5)

In addition to the need for additional resources and mutual coordination, the delivery and follow-up of advice is also experienced as problematic, precisely because of the lack of structural cooperation with government institutions. Advisory boards - such as those of NOOZO, the Flemish Disability advisory board - allow for dialogue but, to the great frustration of many organisations around the table, often only advice is given, and no follow-up is guaranteed.

3.3.2.6 UNIVERSAL DESIGN

During the various RTD, it was mentioned several times that in Flanders, accessibility is insufficiently taken as a starting point.

"[...] Regarding communication material currently developed, an unbelievable efficiency gain would be possible as we have continuously said in all possible consultations [...], the intermediary and the expertise, the Easy Language, were to be included from the start. I'm going to say it quite bluntly, not just for the poor suckers of the world, but for everyone. It's not about inferior communication, or less qualitative communication, it's about clear communication. And I really think that there could be a very big return on investment for the whole corona crisis communication story, I think"

(RTD Vulnerable Dutch-speaking people - P9)

On the one hand, one has the feeling that target group-wide products are being developed and retranslated into target group-specific variants, because of which they often (unintentionally) lose their accessibility. On the other hand, various initiatives are also being set up with the purpose of communication aimed at specific target groups (e.g., videos in VGT for people with hearing loss).

This kind of "target group communication" sometimes overlooks the fact that communication material can be tailored to the needs of multiple target groups. Rather than designing for specific disabilities, "accessibility for all" should be the starting point. According to several organisations, such accessibility is easier to achieve if it is included as a point of attention during development (as opposed to existing products that have to be converted into accessible products), also in the case of urgent communication:

"The moment you also have to deal with acute crisis communication, there should be someone in that team who immediately makes the link to a Easy Language story. So, the channels, too - I can see [Person X] making suggestions in this regard - but the message itself must also be immediately adapted to the entire population and not to what is called mainstream. Let us think about this in advance because crisis communication is essential."

(RTD Vulnerable Dutch-speaking people - P9)

To guarantee accessibility, these products are best developed in consultation with members of the target group, experts in clear communication and people with experience in reaching specific vulnerable target groups. This way, communication material is developed based on the needs of the target group, organisations do not have to work with the products themselves afterwards, and everything is immediately ready for distribution to the target group. Ideally, products are also tested by the target group before distribution.

At the same time, it is recognised that Universal Design is not so easy to achieve. There are many obstacles and conflicting interests to be reconciled. Certain disabilities bring specific peculiarities with them that are not shared by those with other vulnerabilities. For example, inserting the requested extra information for the visually impaired (e.g., production date and URL, further discussed in part 2) may create ballast for other target groups (e.g., people with low literacy skills). Organisations want to move away from pigeonholing, but at the same time understand the challenge of developing an inclusive product that can be used for multiple target groups.

3.3.2.7 RELEVANT TOPICS OUTSIDE THE SCOPE OF THE RTD

The table below (Table 21) summarises some relevant topics that were mentioned during the RTD, but are outside the scope of the project.

Target group	Subject
People with visual impairment	People with visual impairment would benefit from <u>training in the use of new technology</u> . Too often it is assumed that blind people will learn to use (new) technologies on their own. However, this requires a lot of effort. Not only do they have to learn to work with the technology itself. The visually impaired person must also process the content and use a screen reader at the same time.
People with hearing impairment	Consideration should be given to <u>how existing aids</u> - such as speech-to-text technology, the remote interpreting service (<i>afstandstolkendienst</i>) or digital screens - <u>can be used to support people with hearing impairment in searching, finding and receiving COVID-19 information</u> . For example, greater use could be made of video screens that are increasingly present in public spaces to provide information in VGT as an alternative to brochures in hospitals, pharmacies or at the general practitioner.
Sensory vulnerabilities	<u>More attention</u> could be devoted to <u>people with disabilities when communicating to the general population</u> (e.g., exception to the face mask obligation for VGT users or the difficulty for people with sensory impairment to adhere to the 1.5 metre rule...).
Vulnerable Dutch-speaking people	<u>Homeless</u> are a <u>specific vulnerable target group</u> that is difficult to reach and needs more attention. Because of the continuous flow of new, changing measures, some members of the target group lose the overview. It is difficult to distinguish between information leaked from preparatory consultation meetings and actual policy. This reduces the willingness to listen. Some people still live according to old information, while others determine their own rules, shaped by their personal context and imitating the guidelines that others in their environment follow. Even for non-vulnerable persons, it is a challenge to find their way among the multitude of federal, Flemish, provincial, and local sources.
Vulnerable Dutch- + foreign-language speaking people	Train the trainer and centralised communication materials adapted to the needs of practitioners. The report makes it clear that outreach work is necessary for government communication to reach vulnerable target groups in our society. From this point of view, organisations, and even more so their <u>practitioners</u> , are also a <u>specific target group</u> . During both RTGs, it was indicated that the large supply of material makes it difficult to determine which products can best be used to inform the target group. One central place that bundles all information is already a step in the right direction. Before a practitioner can go out on the street, he not only needs to be provided with the right working materials, but he also needs to be thoroughly informed so that he feels able to engage in a conversation. For example, it is easier for intermediaries to communicate about COVID-19 measures than about a topic like vaccination. How can we ensure that intermediaries have the right information and that they pass it on in the right way, despite their own doubts and uncertainties? What kind of support (in the form of knowledge and materials) do intermediaries need to communicate COVID-19 information?
Vulnerable foreign-language speaking people	The availability of multilingual communication is recognised by all RTD participants as an enormous added value. Thanks to this multilingualism, target groups that are traditionally difficult to reach can still be reached. Besides appreciation, the explicit hope is expressed that this could mean a tipping point for increasing the use of multilingual communication, apart from crisis situations.

Table 21 Overview of relevant topics outside the scope of the roundtable discussions.

3.3.3 PRODUCT EVALUATION REGARDING FORM

In this section we zoom in on how the different products were received by the participating organisations regarding form and list general and target group-specific comments per product with a focus on product improvement. A distinction is made between urgent communication (unit 1) and durable communication (unit 2).

Note: Not all products used in this project were shown to all the intermediaries during the RTD. This is because some products are target group specific such as audio described videos (meant for people with visual impairment) but also to make it possible to test a wider range of products over different RTD. Or results are merged since there is an overlap over RTDs. For example, similar practical application methods of the products in the field between vulnerable Dutch-speaking or foreign-language speaking people.

3.3.3.1 UNIT 1 - URGENT INFORMATION ON NEW MEASURES

Urgent crisis information is information that is needed in case of social emergencies such as an attack or a nuclear disaster. This information must be available within 24 hours, which therefore has an impact on the type of communication that can be provided. An example of urgent COVID-19 crisis communication is the very first announcement that face masks are mandatory in stores from date x.

Table 22 provides an overview of the various communication products that are suitable for providing urgent information per RTD in which they were evaluated.

	UNIT 1 - URGENT INFORMATION		
	Audio version new measures	Press conference	Press conference in VGT
RTD People with a visual impairment	✓		
RTD People with auditory impairment		✓	✓
RTD vulnerable Dutch-speaking people	✓		
RTD vulnerable foreign-language speaking people	✓		

Table 22 Overview of reviewed products by RTD - Urgent information.

3.3.3.1.1 AUDIO VERSIONS NEW MEASURES (UNIT 1)

The content of the audio versions tested was the content of the official audio versions available at the time of the RTD. Four specific versions (Spoken-Language-Natural, Written-Language-Natural, Spoken-Language-Synthetic, Written-Language-Synthetic) were presented to the visually impaired as they were the only group that were expert by experience for whom audio had an added value. For the other target groups these specific audio versions will be tested in a later phase of the project.

PEOPLE WITH VISUAL IMPAIRMENT

- The difference between spoken and written language was too subtle to be noticed.
- Synthetic voices are acceptable for conveying non-fiction and factual information. Because the target group often uses reading software (whereby they are forced to listen to a synthetic voice), participants experience a natural voice as more pleasant. In urgent situations, however, it is most important that the necessary information can be passed on to the target group, regardless of the type of voice that conveys the message.

VULNERABLE DUTCH-SPEAKING PEOPLE

- Deliver the core message first. Audio files that begin with *"this is a government message"* are a deal breaker for a large part of the target audience. To prevent listeners from dropping out, start the fragment with rules that should be respected and only mention government or police at the end. Also, be careful not to use the 'threat' of the police/state too strongly. Watch out with the tone and content. Don't make it too patronising ("pointing the finger"). Intermediaries got an "end of the world"-feeling with the current audio products.
- Support audio with images to maintain the listener's attention and to stimulate trust in the product. Audio is fraught with difficulties: people have to listen to it, it has to be credible, it has to reach people. Images can help to achieve these objectives more easily. Trust in the material appears to be a point of discussion (Is it real?). government messages via WhatsApp are considered suspicious. Seeing people speak or add a familiar logo will inspire more confidence. In addition, an audio file is not sufficient to hold people's attention and works better if images are shown as well. It does not even have to be a video. Audio files cannot stand alone, not even as a form of urgent communication.
- Build trust locally by starting from what people already do and know. Not from an authoritarian / repressive message.
- The identity of the narrator is important to reach people and build trust. Participants of the RTD suggested to let influencers do the talking. Choose a well-known person with little opposition and keep in mind that the 'right' influencer differs according to the content of a message (e.g., for medical issues people want to hear a doctor) and the target group to be reached (e.g., age but also nationality). The use of such a familiar voice seems more appropriate for durable communication messages, as a regional translation is required.

To reach a wider audience, multiple formats must be used, combining formal sources (e.g., "the Prime Minister") and popular voices (e.g., "Belgian national soccer player Romelu Lukaku").

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

- Shorten the audio file. The original length of the audio file is over 2 minutes. There was consensus that this is too long. RTD participants stopped listening. Also, sentences are too long and there is too much information in the audio file.
- Add a warm, reassuring message. The tone of the audio was found to be too repressive.
- More research needed on optimal playback speed. For the most vulnerable it is expected that the audio is still played too fast. However, more research is needed on playback speed for these subgroups.
- A Dutch version in Easy Language remains necessary. Despite the availability of audio files in other languages, it is still important that the Dutch version is based on Easy

Language. After all, a Dutch audio message can still reach people when they cannot find communication material in their own language.

3.3.3.1.2 PRESS CONFERENCE VIDEO AND VIDEO IN VGT (UNIT 1)

The next two products are urgent communication products, the first being the Belgian national press conference about new statistics and measures against the COVID-19 virus which was translated to VGT by a sign language interpreter at the right bottom side of the presentation (Figure 93). The second product is a summary in VGT of the above-mentioned press conference (Figure 94). Both products were exclusively evaluated in the RTD with people with hearing impairment.



Figure 93 Live COVID-19 press conference with live VGT.



Figure 94 A summary video with VGT of the press conference's outcomes.

PEOPLE WITH HEARING IMPAIRMENT

- Add subtitles to make products accessible to non-VGT users. Participants recommended using subtitles for press conferences synchronously with the spoken voice for the auditory impairment community who are not competent in VGT.
- Both video products are needed to broaden information access. During the RTD, it was stated that there should be both a press conference and a summary of the press conference in VGT (as offered by Virtual Box) to increase, not limit, the availability of general information for the community of people with hearing impairment. It allows people to make their own choices and have access to multiple information sources.
- Summaries should preferably be done by a deaf person. A deaf person understands the needs of the target group very well and is bilingual.

3.3.3.2 UNIT 2: DURABLE INFORMATION ON PREVENTION AND HEALTH

Durable information is information which is not new and where repetition is necessary for societal benefit such as rules about face masks, washing hands and keeping 1.5 metres distance. The information applies for a longer period and can also be developed with more time.

Table 23 provides an overview of the different communication products (suitable for providing durable information) per RTD in which they were evaluated.

	Infographic Golden Rules (audio)	Infographic Golden Rules (pictograms)	Brochure Vaccination	Infographic Vaccination	PowToon Video (face masks)	PowToon Video (quarantine)
RTD people with a visual impairment	✓	✓	✓		✓*	
RTD people with an auditory impairment		✓	✓		✓	
RTD vulnerable Dutch-speaking people	✓	✓	✓	✓	✓	
RTD vulnerable foreign-language speaking people		✓	✓	✓		✓**

Table 23 Overview of reviewed products by RTD - Durable information.

* Three different versions were tested.

** This version was tested in Albanese.

3.3.3.2.1 INFOGRAPHIC GOLDEN RULES - WITH AUDIO (UNIT 2)

PEOPLE WITH VISUAL IMPAIRMENT

- All participants of the drop off (N=7) think the golden rules with a built-in audio function is a suitable alternative for the target group. The product was also well received during the RTD by both organisations and experts-by-experience.
- Organisations show a willingness to place the link on their own website. Such a link makes it easy to find and share the audio file (e.g., via WhatsApp). To increase findability, a link to the audio file can also be included in brochures in the form of a QR code.
- There is no perfect match between speech and the golden rules shown. When distributing the audio version of the golden rules, it is important that all information is available in audio.

The title is not pronounced, and it is not mentioned that the product is about COVID-19. This context is especially important when only the product is distributed. Additionally, the date must be read out so that the target group knows whether this product is still up-to-date and whether different versions are in circulation.

VULNERABLE DUTCH-SPEAKING PEOPLE

- There is absolute consensus on having pictograms read aloud. Not everyone can or wants to read. Reading is often too difficult for the target group. When diagrams or images are read aloud, this gets more meaning. Some institutions have already implemented similar products, as no other material was available to inform their target audience.

3.3.3.2 INFOGRAPHIC GOLDEN RULES - USE OF PICTOGRAMS (UNIT 2)

The next durable product that will be discussed in detail is the Golden Rules infographic (Figure 95). First, we will discuss the opinions about picture use compared to pictogram use. Subsequently we will discuss the pictograms in detail and why some pictograms were preferred over others.

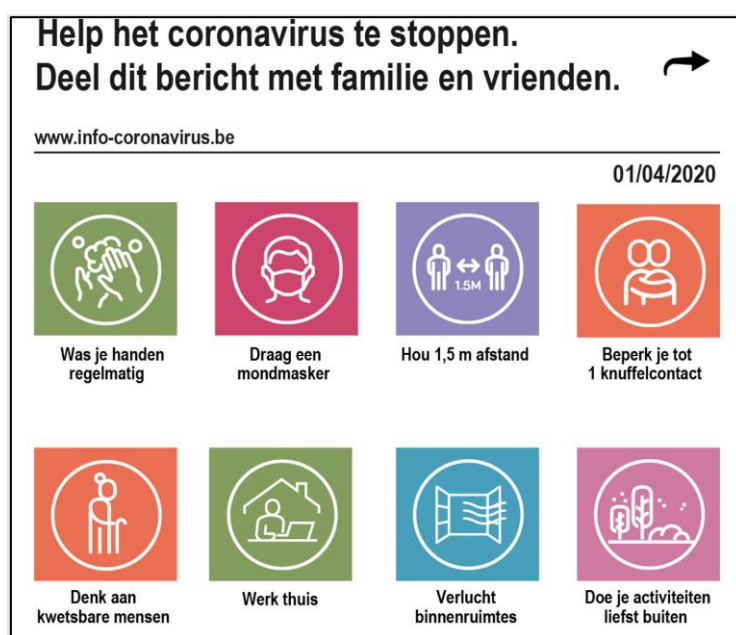


Figure 95 Golden rules, mandatory for the public or strongly advised (“Gouden regels”).

A. GENERAL REMARKS REGARDING THE USE OF PICTOGRAMS

PEOPLE WITH VISUAL IMPAIRMENT

- The pictograms are currently not well received. They are insufficiently clear and too busy. They require a great deal of focus and enough time for the visually impaired to be able to determine what is shown on the image. People cannot see and understand what is depicted with a single glance. There are too many lines to be able to interpret the pictograms. The whole set of images is not accessible, and it is difficult for people to see what the images represent.

- Take into account the contrast, thickness of lines and the design and shape of the icons. Do not use white lines and be aware of colour in general. For these considerations, there are guidelines available for developers.
- When pictograms are used in daily life (printed), both the size of the images and the position of the icon in the environment are very important. Images can be enlarged online, but not in real life. Pictograms should preferably be placed at eye level. Pictograms must be visible from the walking route and within people's field of view.

PEOPLE WITH HEARING IMPAIRMENT

- The participants of this RTD did not elaborate on the general aspects of the pictograms or golden rules product.

VULNERABLE DUTCH-SPEAKING PEOPLE

- Pictograms (and visuals in general) should reflect the diversity of the target groups. Not only in terms of skin colour but also in terms of age and disability. In an ideal scenario, you show the diversity of groups in one image.
- Use a photo or a realistic image. Since icons are very culture-specific, participants think it is better to choose a photo or image that strongly links up with reality. It is more unambiguous, easier to understand, and it shows more clearly what is expected. At the same time, using realistic images or photos also carries obstacles, therefore, photographic material must first be checked with the target group.
- Use pictograms that clearly represent an action. In this way, less interpretation is expected from people themselves. More abstract images are not immediately understood by everyone, certainly not by people who are less involved with what lives and moves in society.
- A balance needs to be found between the use of pictures and pictograms.
- Products need to be usable on a smartphone. This channel is used by both (a part of) the target group and is used by the community workers (showing the material on their smartphones) informing the target group.
- Putting dates on the products. This is necessary because of frequent updates.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

- The low-literate target group has difficulty interpreting graphical information, tables and columns. They also tend to interpret images very literally (e.g., only a surgical mask is sufficient).
- Choose one pictogram per topic (e.g., washing hands) and use this image consistently. Intermediaries indicated that there are too many pictograms in circulation for the same message. Pictograms must be learned. This can be improved when there is only one clear pictogram per message.
- To avoid misunderstanding, new pictograms must be checked with the target group before dissemination.
- A combination of words and images can help clarify the abstraction of images.
- Mix photos, realistic drawings and pictograms, depending on the topic and message. The use of photos was brought up as an alternative to pictograms. Photos are often perceived as clearer, but at the same time are often too specific because they contain many

background elements. A realistic drawing or a pictogram with a low level of abstraction ensures that people do not have to translate much to understand what a pictogram means. For simple tasks such as wearing a face mask, a low level of abstraction is preferred. It is recommended to remove all details that require translation (green check boxes, abstract soap bubbles, etc). Only use a realistic image if you can convey the message unambiguously. If you run the risk of conveying two messages (e.g., keep your distance and wear a face mask), a higher level of abstraction is necessary.

B. PICTOGRAM-SPECIFIC FEEDBACK

Prior to the RTD, the intermediaries were asked to look at and grade three or four pictograms per topic for a few selected Golden Rules. We chose not to display text below the pictograms to test the self-explanatory power of the pictograms, as not everyone can read. The top 3 preferred pictograms are shown based on what intermediaries thought was the best pictogram for the target groups they work with. During the RTD, we showed the participants the percentages from the drop-off (see Figures 96, 97, 98 and 99) to open the discussion and talk about these results in more detail: Why were these pictograms chosen by the intermediaries?

	 Pictogram 1	 Pictogram 2	 Pictogram 3
RTD population with visual impairment	Drop-off results not available due to online readability problems		
RTD population with auditory impairment	0%	25%	75%
RTD vulnerable dutch speaking & other language speaking population	12%	12%	76%

Figure 96 Pictograms about washing your hands, presented for evaluation during drop-off and RTD.

PEOPLE WITH HEARING IMPAIRMENT (WASHING YOUR HANDS)

- Opt for realistic pictograms. Pictogram 3 (developed by Pharos) was consistently chosen over all other pictograms because it was realistic and thus clearer (except for the 'working from home' pictogram). A pictogram that indicates an action also has added value because it encourages the reader/viewer to do something. One organisation prefers neutral pictograms so that the target group can fill them in according to their own situation, skin colour, etc. This contradicted the general tendency to opt for realistic images.
- Pictograms need to be learned and are therefore ideally used in multiple products. For example, it might be interesting to explain pictograms in a VGT video. According to one of

the participants, this combination of a neutral symbol with an explanation is necessary. It is only once you have seen a symbol in combination with VGT that you will understand it in another context. Showing an icon without talking about it, makes it less accessible for deaf people.

- For very specific target groups more research is needed. The intermediaries were careful to speak for an entire target group and applied nuances, e.g., that there are also certain target groups (for example people with Autism Spectrum Disorder) who possibly respond better to pictograms than to very realistic drawings.

VULNERABLE DUTCH-SPEAKING PEOPLE (WASHING YOUR HANDS)

- More realistic images create clear expectations. Pictogram 3 is seen as the clearest pictogram that shows someone washing his/her hands. "You see two hands, a tap, soap and those hands are washed". This was checked with and confirmed by the target group.
- The intermediaries preferred pictogram 3 (developed by Pharos) but suggested developing a mixture of alternatives regarding coloured hands/non-coloured hands, and other factors that show diversity.
- Photos can be used as an alternative to icons, but they also have some drawbacks. Dealing with the background is more difficult with photographs. Photos also become less clear when they a) are printed in black and white and b) when they need to be displayed in a smaller size. To save printing costs, intermediaries often do not print communication materials in colour.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE (WASHING YOUR HANDS)

- Pictogram number three was perceived as the best option by all participants. It was rated as the most unambiguous pictogram that requires no translation. The presence of the tap removes the ambiguity that is present in other pictograms, which are much more abstract and sometimes even distract from the message. Several participants of the RTD tested the pictograms with the target group (during the drop-off period). Some examples of unclarity:
- Pictogram 2 (golden rules) was not understood by anyone (of the target group). This icon was interpreted as "wash your face".

- In pictogram 1 (city of Antwerp) the green check box sign was not understood by the target group.

	 Pictogram 1	 Pictogram 2	 Pictogram 3
RTD population with visual impairment	Drop-off results not available due to online readability problems		
RTD population with auditory impairment	0%	25%	75%
RTD vulnerable dutch speaking & other language speaking population	16,6%	27,8%	55,6%

Figure 97 Pictograms about wearing a face mask, presented for evaluation during drop-off and RTD.

VULNERABLE DUTCH & FOREIGN-LANGUAGE SPEAKING PEOPLE (WEARING A FACE MASK)

- In both RTDs, there was consensus on pictogram 3 (developed by Pharos).
- This pictogram was chosen because it demonstrates the desired action - putting on a face mask.

The image also shows how to hold a face mask and rules out misunderstandings about using a scarf as an alternative means of protection. Still, there was concern that it could also be interpreted as taking off the mask.

- It was suggested by some of the participants to include different genders and skin colour options.

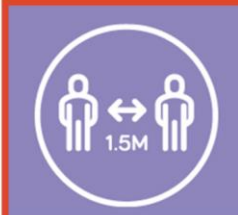
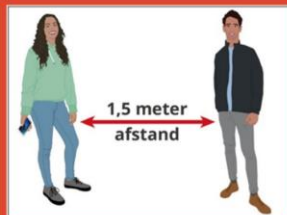
	 Pictogram 1	 Pictogram 2	 Pictogram 3
RTD population with visual impairment	Drop-off results not available due to online readability problems		
RTD population with auditory impairment	0%	25%	75%
RTD vulnerable dutch speaking & other language speaking population	12%	41%	47%

Figure 98 Pictograms about keeping 1.5 metre distance, presented for evaluation during drop-off and RTD.

VULNERABLE DUTCH-SPEAKING PEOPLE (KEEPING 1.5 METRE DISTANCE)

- Some participants thought that 1.5 metres remained abstract. Make the distance more tangible by showing what 1.5 metres is. For example, by placing objects between the people or by using the dots on the ground that often appear in the streets.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE (KEEPING 1.5 METRE DISTANCE)

- For this pictogram there was no clear preference.
- In the previous pictogram series (“Wash your hands” and “Wear a mask”), the most realistic representation was always chosen as the best option. Here, however, the realistic representation in pictogram 3 caused some concern. Pictogram 3 sends multiple messages; with text in the picture, gender combination (male/female) and not wearing face masks when keeping a distance. All this makes it too complicated and open to different interpretations. By choosing a more realistic image to convey a difficult message/rule, you run the risk of complicating the message even more. Especially when several people are shown in one image, there is a risk that the target group will make inferences about gender/ethnicity...
- Using abbreviations in pictograms/text is not recommended. For example, not everyone understands what the letter “M” stands for. Therefore write “M” as “metre”. As mentioned in the general section a lower level of abstraction is recommended for this message.

			
	Pictogram 1	Pictogram 2	Pictogram 3
RTD population with visual impairment	Drop-off results not available due to online readability problems		
RTD population with auditory impairment	0%	0%	100%
RTD vulnerable dutch speaking & other language speaking population	16,7%	27,8%	55,5%

*This pictogram was not discussed in detail during the RTDs

Figure 99 Pictograms about working from home, presented for evaluation only during drop-off.

3.3.3.2.3 BROCHURE VACCINATION (BEELDTAAL FICHE) (UNIT 2)

The next product to be discussed is the brochure about vaccination against the COVID-19 virus (“beeldtaalfiche”). During the drop-off, the full 16-page document was presented to the participants. The two pages presented in Figure 100 below were shown to participants during the RTD. Both the results of the feedback collected during the RTD and the drop-off are discussed below.

Extra drop-off data on which product was preferred most will be added in Appendix L.



Figure 100 Brochure to inform the population about the practical aspects of the COVID-19 vaccination in Flanders.

PEOPLE WITH VISUAL IMPAIRMENT

- The brochure was not received as a good information product for people with visual impairment.
- Use images only when absolutely necessary and make sure they complement the text. Organisations and experts-by-experience pointed out that there were 64 pictures in the document and questioned the relevance of this large number of images. Many pictures in a document suggests that images are very important. However, the reading software only showed single words. The image and message do not complement each other, and the visual information has little meaning on its own (e.g., a calendar is shown for a few weeks of waiting). Images should reflect the object of conversation. The visual material was not optimally chosen because the same material was sometimes used for multiple messages.
- Most images are not provided with an alternative text/label, leaving them inaccessible for people with reading software. The product was not easy to read with reading software and therefore not accessible.
- A printed version (sent by post) is easier to read with software than the online version. However, the product remains inaccessible to anyone who does not have reading software (e.g., the elderly). To make a product accessible to a non-digital target audience, more thought should be given to how to mobilise the social network of these people.
- The brochure should certainly be retained. However, the document must be modified so that it becomes readable.
- All attendees agreed that a simple Word file in plain text is more accessible than the brochure, provided the reader has access to reading software. Again, the large non-digital target group is excluded.
- Little in-depth information is accessible to the target group. People with visual impairment have to look for additional information themselves.

PEOPLE WITH HEARING IMPAIRMENT

- The brochure was not recognised by participants as part of the communication flow. Two organisations consider the brochure as clear or nice material. It becomes clear that the product should be disseminated more effectively. Participants visit healthcare institutes regularly but never seen the products before.
- More in-depth information is needed. The participants found the brochure too simplistic, which can be a danger if it is the only way to gather information. E.g., Does everyone know what is expected with hand washing? Because of the compactness of the information, it is not clear what the correct way of washing hands is.
- Pictures in the brochure were judged to be too small. Participants were also wondering if they were tested for colour-blind people and black and white use.

VULNERABLE DUTCH-SPEAKING PEOPLE

- Test the brochure in black and white print. Have a black and white version suitable for print and an attractive colour version for online use. Intermediaries ran the test and concluded that a black and white printout of the current product is not readable and produces unclear photos.
- Avoid an abundance of photos. Intermediaries found the photos used to be very unclear and believed that photos and text did not match well. There is no need to put everything in photos or images (Why would you want to depict high blood pressure or diabetes in a photo?). Additionally, a photo of normal life can be interpreted differently by everyone, so you quickly convey different messages. Photos are considered a strong visualisation (apart from this product), but wrong use and excessive use can weaken the communication message.
- Product-specific details:
- Some sentences are thought to be very strange. Specific groups are listed that need to be protected. That is a strange message because it excludes certain groups. The sentence "You protect yourself and you protect others" is given as an alternative.
- The cross through "65 years and older" is very confusing because it gives the impression that you are not protecting this group. This comment returns over multiple RTDs.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

- The layout of the brochure (Figure 100) was not well received.
- There is little space between the different steps of being vaccinated, making it difficult to see which step belongs to which pictures. It was suggested to use actual steps (1,2,3...) to inform the target group about how to get the vaccine.
- Rounding the edges of pictures makes some images more unclear. "The calendar could also be a lotto form".
- The brochure is perceived as 'sloppy' because pictures are used several times for different messages. A different message requires different images. Moreover, the pictures are too small compared to the prominent background colour.
- The blue crosses through the pictures were poorly received. They look more like pie slices and the photos with crosses do not correspond well with the text. Participants did not understand why the message "Protect the elderly" was conveyed through a crossed-out photo with an elder.
- Be careful with stereotyped images. The picture used to depict "ordinary life" does not fit with every target group, not all people can identify themselves with it. Careful

consideration should be given to whether the use of an image is needed. For example, can we really depict the world of the broad target audience with one image? If not, it is better not to use an image at all.

ADDITIONAL DROP-OFF INFORMATION PER TARGET GROUP

Additional information about the brochure was obtained via the drop-off, specifically regarding dissemination purposes towards the target group. The closed answers to the questions are shown below in Table 24, followed by a discussion of the open answers.

	'Would your organisation disseminate the brochure to the target group?'			
	Yes, in its current form	Yes, after alterations	No, this product is not suitable for the population	No, my organization does not disseminate COVID-19 information
RTD population with visual impairment	29%	14%	0%	57%
RTD population with auditory impairment	25%	25%	0%	50%
RTD vulnerable Dutch & foreign-language speaking population	28%	66,5%	0%	5,5%

Table 24 Drop-off results per RTD-group "Would your organisation disseminate the brochure to the target group?".

PEOPLE WITH VISUAL IMPAIRMENT

For people with visual impairment, this is a very unclear brochure. Light text is often experienced as difficult to read (there are exceptions) and the font used is also not easy to read. When the brochure is distributed on paper, it is difficult to read with the ever-shifting arrows. If it is distributed digitally, know that many people have trouble reading a PDF file with their custom software. A Word or txt file, or simply an email or website where all information is available in text form, is more accessible to the target group.

Reading the brochure with a screen reader caused a lot of confusion. Some examples:

- It is not entirely clear what the enumeration of different target groups is doing under the "reasons to get vaccinated". There is probably another heading that the screen reader doesn't read.
- At the end of the brochure, under 'Keep following the rules', there is a sentence that is not correct (read aloud by the screen reader software). 'Draag een van elkaar' This is repeated twice.
- Under the heading 'Where do you get the vaccine?', the following is read by the screen reader: "Je krijgt je krijgt het adres het vaccin in een bij de uitnodiging het vaccinatiecentrum".
- Under the heading 'How much does the vaccine cost?' there appears to be nothing. The screen reader immediately reads: 'Do you have any questions?'

PEOPLE WITH HEARING IMPAIRMENT

- Add an extra QR code that leads directly to video in VGT.

VULNERABLE DUTCH-/FOREIGN-LANGUAGE SPEAKING PEOPLE

- Alternative image suggestions and word choice:
 - Use an image / photo of a syringe for the word vaccine. Use the word 'painkiller' instead of the name of the 'medicine'.
 - Use a different, more internationally accepted image - such as a thumbs-up picture - to show that something is "safe" or "good" (see Figure 101 for the original image).
 - The free (vaccine) text and pictogram (see Figure 101) were seen as an error as the photo is not understood as free, but rather as not free. Together with the text this confused participants.

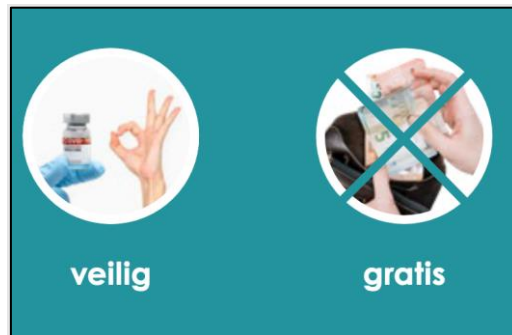


Figure 101 Excerpt from the brochure - Vaccination is safe and free.

- Mention the availability of a (free) telephone number for questions.
- Information should be correct (e.g., if you have received a vaccine, you are not fully protected, you can still get sick but with milder symptoms). This leads to a feeling of a lack of nuance and not giving enough information.
- Photos online come across as too small and too detailed and therefore do not support the text at all. By putting a cross through images, understandability decreases.
- Offer basic information first, and then possibly more detailed information (like the 'read more' button used in online texts).

3.3.3.2.4 INFOGRAPHIC VACCINATION (DE ZUIDPOORT) (UNIT 2)

The product shown in Figure 102 is an infographic about vaccination developed by De Zuidpoort to support the professionals in the field in communicating about COVID-19 with the target group. This product was evaluated by organisations that provide support to vulnerable Dutch and foreign-language speaking people.

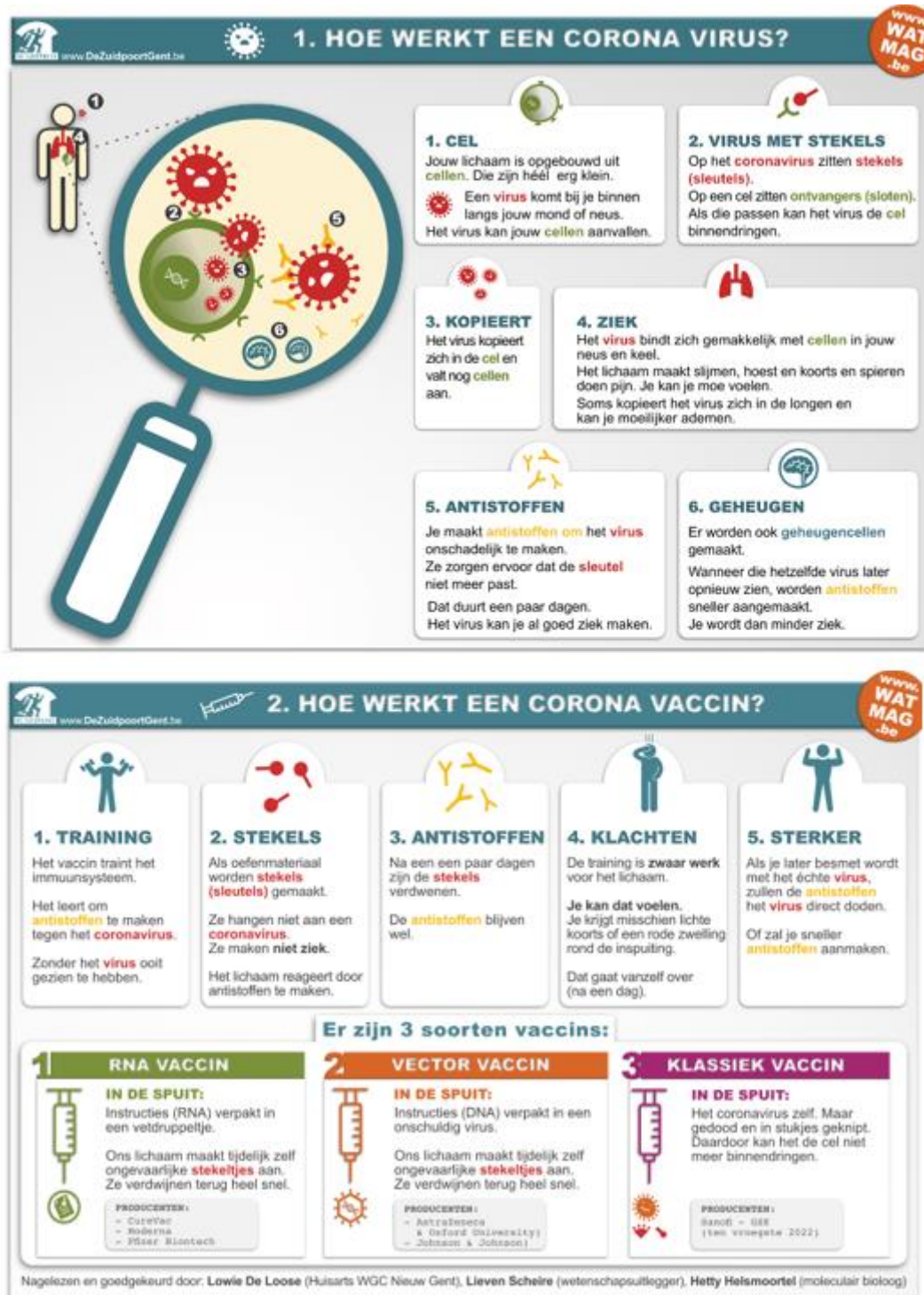


Figure 102 Infographic explaining COVID-19 (information about the virus) and vaccination options.

VULNERABLE DUTCH-SPEAKING PEOPLE

- The infographic is only suitable as a guideline during a conversation. Not for people from the target group to go through on their own. Teach the teacher / Train the trainer was considered to strengthen the capability to guide the target group as an intermediary with the infographic. Furthermore, intermediaries must have the infographic with them on paper or smartphone to feel more confident.
- The infographic and the brochure are seen as complementary (ANDs not ORs) in terms of form, each with a different purpose. It is interesting to make a distinction between the brochure, which can be given to the vulnerable target groups themselves, and the infographic, which can be part of in-depth material to support the intermediaries so that they can enter a dialogue with the target group better informed and with the necessary baggage.
- Communicate in two layers. An accessible layer of information that everyone can understand. A second, more in-depth layer, containing supporting information that intermediary organisations can use in their work.
 - Well received tip: Make a colour distinction to show what is for the target group (for dissemination) and what is for the intermediary to support the target group during a conversation.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

Results between vulnerable Dutch and foreign-language speaking people are very comparable as can be observed below.

- The infographic is considered the only product available to help the intermediaries provide more depth to the conversations with the target group. It is also an important product to raise awareness.
- Intermediaries agreed that it is too difficult to distribute the infographic in its current form to the target group, but according to the organisations this is not the purpose of the product.
- In contrast to the domain name of the government (info-coronavirus.be), intermediaries thought the website (source) of the infographic appealed immediately (Watmag.be).
- The infographic (Figure 102) and the brochure (Figure 100) are recognised as added value because they serve different purposes (ANDs not ORs). A concise brochure in Easy Language that can be distributed to the target group provided that no explanation is needed and it speaks for itself. The infographic for the intermediary as a tool that can be used before the conversation for more explanation.

3.3.3.2.5 POWTOON-VIDEO ABOUT WEARING FACE MASKS AND QUARANTINE (UNIT 2)

The next products that were discussed are five different versions of the PowToon-Video (Figure 103) specified to the needs of each target group:

- General video
- General video with audio description (People with visual impairment)
- General video with audio introduction (People with visual impairment)
- General video with VGT (People with hearing impairment)
- General video with Albanese voice-over (Foreign-language speaking people)

The different versions are discussed in more detail below.



Figure 103 Example of PowToon-video explaining what quarantine is.

A. VIDEO VERSION AUDIO DESCRIPTION (PEOPLE WITH VISUAL IMPAIRMENT)

Audio description (AD) (also known as video description or visual description) is an additional narrative voice that provides information about relevant visual elements in a media work for people with visual impairment.

- There was limited space to apply audio description according to the intermediaries.
- The AD is not very relevant to the content. "Someone with a headscarf is texting at the bus stop". In this case, if one would only listen to the audio, one would know what it is about. Therefore, the audio description is not supportive of the content.
- When the image does not contribute to the message, it is sufficient to let the visually impaired know that the image is only used as a background. As at times the audio description was confusing, e.g., "cinema seats make way for religious buildings", "if taken literally is completely absurd".
- People with visual impairment (with partial eyesight) see fragments of the visual material shown and therefore experience a need for auto-description. That way, they can better understand the visual material shown to them. Otherwise, people feel that they might miss crucial elements/ messages).
- The synchronic audio description of the image was seen as relevant as were the (clearly) two different voices for the original film (female voice) and the audio description (male

voice) to properly distinguish between them. Audio description is seen most desirable for videos about sustainable themes such as hand washing and wearing a face mask.

B. VIDEO VERSION WITH AUDIO INTRODUCTION (PEOPLE WITH VISUAL IMPAIRMENT)

Audio introductions (AI) are brief audio messages at the beginning of an audiovisual text that provide necessary information for people with visual impairment to be able to follow the video. Audio introductions can be stand-alone or can be combined with audio description during the video.

- Blind persons preferred AI over AD as they perceive it as less confusing.
- There is a distinction regarding content between blind people and people with visual impairment (with partial eyesight), while blind people tend more towards audio introduction, people with visual impairment tend more towards audio description.
- Audio description offers too much superfluous/detailed information for the blind to understand the message. In general, audio introduction is experienced as less dense.

C. VIDEO GENERALLY USED

PEOPLE WITH VISUAL IMPAIRMENT

- None of the intermediaries had ever seen the shown video before.
- The video was not considered too patronising. "On the one hand you can design communication in such a way that it is wonderfully clear and on the other hand not patronising or childish. These do not have to be opposites of each other".
- The participants stressed the importance of the video being able to reach multiple target groups with the same product. However, it is expected that it will be challenging to reach a guideline with all the different interests involved.

PEOPLE WITH HEARING IMPAIRMENT

Note: This product was discussed earlier in this chapter, together with the video with VGT.

VULNERABLE DUTCH-SPEAKING PEOPLE

- Both text and a voice-over that reads the text aloud are preferred for people who do not have a command of Dutch as they often watch such videos together with a social worker. A voice-over film can be useful to continue the conversation afterwards.
- When the video is distributed digitally, file format (downloadable via public Wi-Fi) and accessibility via smartphone need to be taken into account.
- Nuance is necessary. The video is received positively but it is a challenge to be sufficiently nuanced in Easy Language. If people have the feeling that the message is not correct, you lose credibility: E.g., with a face mask you can't get sick and no one gets sick because of you. You lose credibility when you put things in such sharp terms (as this is not 100% true). This became clear in conversations with the target group. The intermediaries are bothered by these incorrect statements. Furthermore, focussing on influencing and not taking people seriously is seen as even more problematic. Because of this, the material cannot be developed properly and an experience test by the target group will be necessary.
- There is a need for objective information (e.g., for people with vaccination hesitancy). The participants suggest that people should be enabled to make an informed decision and

not steer or push them into a direction with the provided information. When a certain new behaviour is expected from people, a simple version of information is not possible. Making an informed decision is more difficult or even impossible on the basis of simplified (in some cases incorrect) information.

- Experts-by-expertise say that people need honest communication, which can also be negative. Currently, people have the feeling that they are just being led up the garden path by the constant discussion of content. Honesty is seen as more important than a negative message.
- Developers don't know where the nuance was lost. However, they do not think it will make a difference and people will understand it.

More specific feedback was provided as well:

- The pace at which the images are shown and the pace at which they are spoken are brilliant.
- The tone of the video was perceived as too authoritative and combined with the word "must" evokes resistance. The video will have to match the reality of the target group otherwise it will lose credibility.
- The video should not be too long. It should be tested what is a preferred length.
- Start from the general (that which applies to everyone) to the particular in terms of information.

VULNERABLE FOREIGN-LANGUAGE SPEAKING PEOPLE

- The video did not support the text sufficiently as the visuals do not give any additional information to the text. "Figures in the image should do something that supports the text". "The video could just as well have been transmitted as audio".

Note: during the RTD Vulnerable Dutch-speaking, the opposite was stated, that there is a need for images to hold the attention. Audio in itself is not enough. This seems interesting to include in the conversation with the target group.

- There was no consensus whether text matching text to voice must be provided in the video regarding language. Some intermediaries suggest it could create confusion when using Dutch text with another language as voice-over. Others suggest that it could be useful for the conversation between the community worker and for the target group or for people who can read Dutch but don't speak it. This needs to be cleared out with the target group in a later stage.
- Video is less suitable for forwarding via, for example, WhatsApp. The text then appears much too small on the screen and is a heavy file in relation to the audio.
- Don't use sentences that are too long.

D. VIDEO VERSION WITH VGT



Figure 104 Example of the general video with VGT.

PEOPLE WITH HEARING IMPAIRMENT

- The material shown was not known to most people in the target group.
- Both the general video and the general video with VGT are necessary (ANDs not ORs) especially to reach the majority of the target group.
- Subtitles are needed for people with hearing impairment who are not as sign language competent. For example, “when footage is shown on television, people wonder if the information being shown is supported by a voice”. “If it is spoken, subtitles are necessary”.
- Sign language and visual information is needed for people competent in sign language. There are deaf people for whom textual information is not enough. Ideally, you then use a deaf interpreter who can convert information into VGT.
- It is not easy to make one video for everyone, so at this point several versions are needed. It might be a good idea to mention in the films that there are also other versions and where they can be found (possibly with a link).
- Reasons that one video for everyone is hard to develop for the target group:
 - For people with hearing impairment who communicate in spoken language, the combination of drawings, the text in the video, the subtitles and the audio are expected to be too overwhelming.
 - The videos on info-coronavirus.be show sign language simultaneously with subtitles, however, the subtitles are experienced as difficult to read which was tested with the target group.
 - Too many visual stimuli are a disadvantage for people with hearing aids or a CI. If you can still catch sounds with a hearing aid or CI, the target group would like a match with the text. This makes it less tiring and clearer.
- In order to get around this perceived overload of information, suggestions were made:
 - Working with “screenshots” of animations from the existing video so that translation can take place at the natural pace of the target group.
 - Intermediaries suspect that there would be more time to get the message across and the product will be less busy. With durable information this is possible, with

crisis communication (e.g., a press conference) the translator cannot decide on the timing. Moreover, it is important that everything matches in terms of timing between the visual and auditory elements. And that it fits the core message.

3.4 CONCLUSION

During all RTD it became immediately clear that the definition of the target groups is much more refined than only the described target groups (e.g., people with visual impairment). It was explicitly stated that all the diversity that is present in the general population is also present in the target groups of the intermediaries. By looking at the target groups in this way, there are many "sub-target groups". If this is translated into communication materials, it is not feasible to tailor these to each sub-target group separately. However, this pigeonholing appeared to be the tendency for the time being.

Throughout the discussions, the principle of Universal Design recurred several times, which could be an option to better deal with a super-diverse society. If a product is developed with the idea of "accessibility for all", that product suddenly reaches a population that can surpass all the target groups from this RTD.

These kind of universal communication products, that meet as many needs from society as possible, could also contribute to different solutions for the described problems that are experienced in the field.

- A universal product appeals to a larger audience, material could be available for a larger vulnerable target group. The lack of communication products is now perceived as a major problem especially by the people with hearing impairment.
- Because it is suitable for a large group of people, awareness of the product could also be higher compared to the considerable number of products that are currently available. Organisations share and communicate with each other; therefore, dissemination of a universal product can occur quickly. Currently, products are quite "target group specific" which limits their re-usability by other organisations.
- It is assumed that it can be an enormous efficiency gain for the flow of the materials from the government to the target group because the materials may no longer have to be adapted each time, to make the product fit the needs of each (sub)target group.
- It can possibly limit the proliferation of products, logos, and other initiatives. At the moment, hardly anyone has an overview of who is distributing what and what information is circulating among the population.

Nonetheless, intermediary organisations mentioned that it is hard to develop one product for everyone and listed some of their concerns to take into account:

- For people with hearing impairment who communicate in spoken language, the combination of drawings, the text in the video, the subtitles and the audio are expected to be too overwhelming.
- The videos on info-coronavirus.be show sign language simultaneously with subtitles, however, the subtitles are experienced as difficult to read which was tested with the target group.
- Too many visual stimuli are a disadvantage for people with hearing aids or a CI. If you can still catch sounds with a hearing aid or CI, the target group would like a match with the text. This makes it less tiring and clearer.

These concerns suggest that a product should have options to add or remove (VGT, subtitling or show a text file...) to match the needs of a specific person and not overwhelm them with every option present. But also, during the development of such a product, working together with a variety of people from different target groups must be the guaranteed before publication of the product. Intermediaries agreed with this idea, as elaborated on below.

There was much agreement during the RTD on how to take sustainable steps in the development of a more universal product. It is strongly emphasised that there is a need for cooperation between the government and the intermediaries regarding the development or evaluation of the communication products if they are intended for the target group they represent. Less of an advisory role, but more of a participatory role is recommended. In addition, it is recommended to first evaluate the products with a diverse target group from the population to ensure a good integration. This in-between step seems more feasible with a more centralised product.

Apart from the development, the intermediaries are in need of harmonisation of tasks that are expected of them towards dissemination communication products. But above all, they need support because their role with this intensity that they are now taking on is not part of their normal work.

During the RTDs, the need for a two-part information system came up several times. On the one hand there is a need for general information products in understandable Easy Language which can be distributed directly to -and used by the target group. On the other hand, there is a need for more in-depth communication material intended for the intermediary to explain more to the population if there are questions or ambiguities. This strengthens the intermediary's role in providing qualitative explanations about COVID-19 rules or measures. Provided that adjustments are made, an example for direct distribution to the target group is the brochure on vaccination. An example to be used by the intermediary would be the infographic on vaccination, developed by De Zuidpoort.

This also fits perfectly with "the chit chat" between the intermediary and the target group (e.g., on the street or at the associations of the intermediaries) which is seen as crucially important by the intermediaries. Large differences in being aware of measures were seen between people with whom a "chit chat" had taken place or not.

Intermediaries therefore have an important role in helping to get information to the public. At the moment, several organisations are also taking on the role of developer because 1) no material is available for their target group (e.g., Visual Box - people with hearing impairment) or 2) the material does not match the target group they represent, which means that adjustments are needed.

The importance of the intermediary becomes even clearer when it appears that the target groups cannot find their way to the info-coronavirus.be website. Furthermore, there is frequent reference to the considerable distrust in the government among several target groups. This distrust is reinforced by communication material that is motivating in nature, comes across as too authoritarian or pedantic, which confirms or reinforces the distrust. The intermediary is more often seen as someone who is known and who has built up trust with them over the years. This means that they do have an entry point into the target group communities and can introduce nuances, counter misinformation or answer questions. Because according to intermediaries, trust is not something you just get, you have to earn it. It was suggested to build trust locally by starting from what people already do and know. Not from an authoritarian / repressive message.

Intermediaries share information both digitally and physically for both urgent and durable communications. However, there are differences between the RTD in how they approach dissemination and some organisations are more dynamic than others. They see that online and digital communication materials have the upper hand. Intermediaries ask not to forget the physical use of the materials during the development. Think of black and white printing when you take it with you to the target group. Is it still readable? Is there a download button to print material? Apart from the practical aspects, a rather digital approach also appears to exclude large parts of the population. Within various RTDs, non-digital proficient elderly people were addressed and discussions were held on how to reach them. According to the intermediaries, television and radio do bring urgent information to the elderly. However, the network is heavily relied upon for durable or more in-depth information, and there is also no clear picture of whether more in-depth information reaches the elderly. The question how people experience the accessibility of non-digital materials and what additional needs there might be in this respect must be explored in the focus group discussions (reported on in PART 5).

4 ROUNDTABLE DISCUSSIONS: EVALUATING COMMUNICATION STRATEGIES WITH INTERMEDIARIES IN BRUSSELS AND WALLONIA

4.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Brussels and Wallonia by UCLouvain in which roundtable discussions were conducted with intermediaries to evaluate the COVID-19 communication strategy by the federal government and the accessibility of specific communication products. The communication materials used during the roundtable discussions, were developed as part of the experimental product development phase of this project. See PART 2 for more details on this phase. Below, we offer an overview of the materials selected for the roundtable discussions.

This chapter is based on the content of the following project deliverable report:

Lambert, H., Le Boulengé, O., Doumont, D. & Aujoulat, I. *Internal report on insights roundtable discussions for Brussels and Wallonia. Report on Work Package 3*. 18 June 2021.

Hélène Lambert and **Océane Le Boulengé** are equal first authors. They informed and recruited the participants, organized and moderated the roundtable discussions, analysed the data, drafted and later finalized the report;

Dominique Doumont finalized the selection of materials and translated the interview guides, based on the information received from Thomas Moore, participated in the roundtable discussions as an observer, commented on the analysis of the collected material and critically revised the report;

Isabelle Aujoulat supervised the work at the different steps, participated in the roundtable discussions as an observer, commented on the analysis of the collected material, critically revised the draft report, and supervised its finalization.

4.1.1 SELECTION OF MATERIALS

Based on the overview of materials and the subsequent internal analysis and discussion (see PART 3 in this report), a set of materials was selected by several members of the research consortium⁴⁸, and provided to the UCLouvain team to be used as a basis for the roundtable discussions.

Two “units” were selected:

- **Unit 1: urgent information on new measures.** Emergency communication material is made up of media created very quickly after an **event**, generally within 24 hours. It does not have the possibility of being adapted over a long period of time, especially according to the feedback received, as is the case for durable communication material, but **must inform the greatest number of people in a very short time**. This information is

⁴⁸ Heleen Van Opstal, Viktorija Potoroca & Tristan Van Hoeck (Atlas), Lien Vermeire (NCCN), Mieke Vandenbroucke, Nina Reviers, Gert Vercauteren & Bonnie Geerinck (UAntwerpen), Cornelia Wermuth (KULeuven)

changeable. Clear, minimum priorities must therefore be set for translation and retranslation.

- **Unit 2: Long term information on prevention and health (also referred to in the rest of the report as durable communication).** Durable communication is a communication that is repeated and applied over a long period of time. For this type of information, more time is available and more attention can be paid to a wider variety of accessible forms and translations via a wider selection of channels.

In order to evaluate this type of communication carried out by the federal government during the health crisis, excerpts of their productions were presented to organisations during roundtable discussions, in order to gather their views on their accessibility and effectiveness in relation to the target audiences identified for this project.

The units developed (see below), contain:

- Existing materials.
- Existing materials, slightly adapted to highlight certain features to be discussed in the roundtable discussions.
- Different alternatives of the same information to be contrasted in the roundtable discussions.
- The current info-coronavirus.be website.
- A newly made staging website, on which the materials for the roundtable discussions are grouped and structured efficiently for evaluation in the roundtable discussions.
- All products are provided in French and Dutch.

The following products were selected, and developed or made available by Atlas:

- **Audio versions new measures:** audio versions were created based on written language style (the way it is currently provided by Atlas), an alternative version in spoken language style and for each of these versions, one was created with human voices and one with synthetic voices.
- **Infographic Golden Rules:** Atlas provided the original jpeg, and added an alternative that includes a voice-over as well, for easier distribution via social media, and to increase its accessibility for people with low literacy skills or people with visual impairment.
- **PowToon-Video Face masks:** The existing video was extended with: subtitles, sign language, an audio introduction and an audio description.
- **Video on Quarantine:** a video with Dutch text on screen, but with alternative audio in French and Albanese
- **Infographic vaccination:** https://d34j62pglfm3rr.cloudfront.net/Vertaling/Vaccinatie_campagne_beeld_NL.PDF
- The vaccination brochure was made as accessible as possible for screen readers, in collaboration with experts.
- **Pictograms:** a set of alternative pictograms in different styles was selected, to contrast and evaluate preferences.
- **Press conference summary in Flemish Sign Language:** a video was selected, that offers a summary of the press conferences. This video was provided on a voluntary basis by Visual Box.
- **Press conference summary in LSFB:** Similarly, a video offering a summary of the press conferences in LSFB was selected, made by an external organisation (<https://fb.watch/6ckyZ2C59g/>).

The following products were selected by UCLouvain based on the suggestions by Atlas and presented to the roundtable discussion participants:

Unit 1: For urgent information on new measures (“crisis communication”):

- **Text in Easy Language** (“Klare Taal” in Dutch and “langage Facile à Lire et Comprendre, FALC” in French) about regulations and measures against COVID-19. Groups to whom it was presented: intermediaries of people with visual impairment, intermediaries of foreign-language speakers with low socioeconomic backgrounds
- These two texts were respectively produced by NCCN and by Atlas, Intégratie & Inburgering Antwerpen. See Figures 105 and 106 for an example.

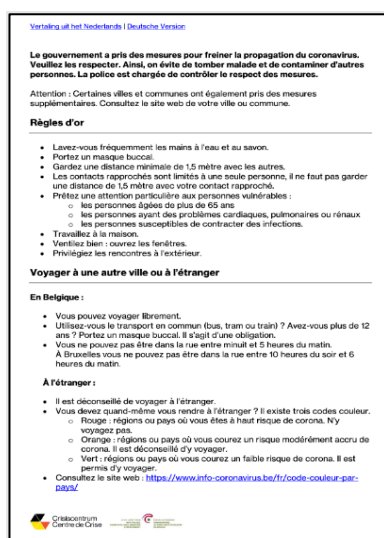


Figure 105 Text in Easy Language in French.



Figure 106 Text in Easy Language in Albanian.

- An extract from a **press conference** interpreted in sign language and a press conference summary in LSFB made by an external organisation working with people with hearing impairment (Figure 107). This was presented in the roundtable discussions with intermediaries of people with hearing impairment.

The press conference interpreted in sign language is an original product and no changes were made to this product within the project. The press conference summary in LSFB is a product made by the collaboration between L'épée Asbl & L'escale Asbl.

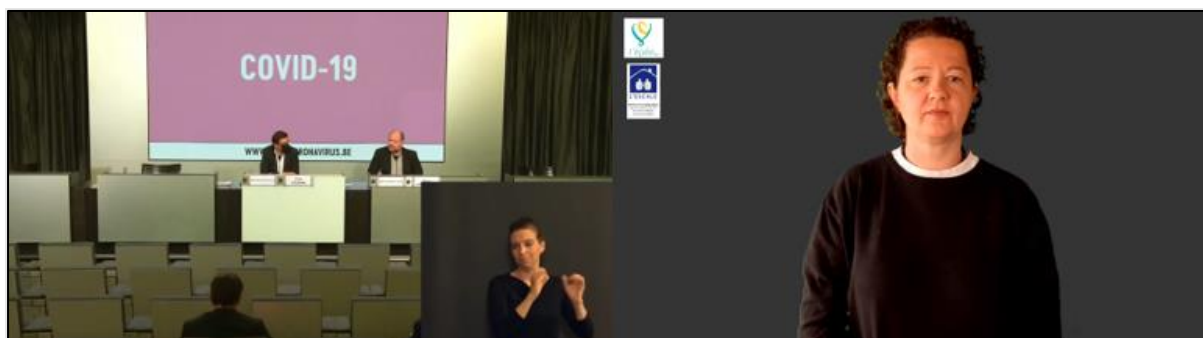


Figure 107 COVID-19 press conference with live LSFB (left) and a summary in LSFB of the press conference (right).

- An image sheet on the regulations dated from March 27, 2021 (Figure 108).

This was presented in the roundtable discussion with intermediaries of people with hearing impairment.

This infographic (“beeldtaalfiche”) is a material produced by NCCN which was translated into French for the presentation during the roundtable discussion.



Figure 108 Image sheet on regulations.

- **Audio messages:** a formal language (or written language) text, read out with a natural voice or a synthetic voice, and casual language text (or conversational language), read out with a natural voice and a synthetic voice.

These were presented to the roundtable discussions of intermediaries of people with visual impairment, French speakers with low socioeconomic backgrounds, and foreign-language speakers with low socioeconomic backgrounds.

Audio with natural voice is original material made by NCCN and was available on the info-coronavirus.be website. The synthetic voice audio was specifically developed by Atlas for the RTs as an alternative.

Unit 2: For long-term information on prevention and health (“durable communication”):

- Different types of **pictograms** including infographic golden rules were presented in all 4 roundtable discussion (Figures 109, 110, 111 and 112). In addition, for the roundtable discussion with intermediaries of people with visual impairment, an audio description was furnished.

Golden rules JPEG is original material by NCCN and was available on the info-coronavirus.be website. For the project, a French natural voice was developed and added to the JPEG image by Atlas.



Figure 109 Infographic on golden rules.



Figure 110 Pictogram: put the mask on your chin. Tie the ribbons underneath by NCCN.

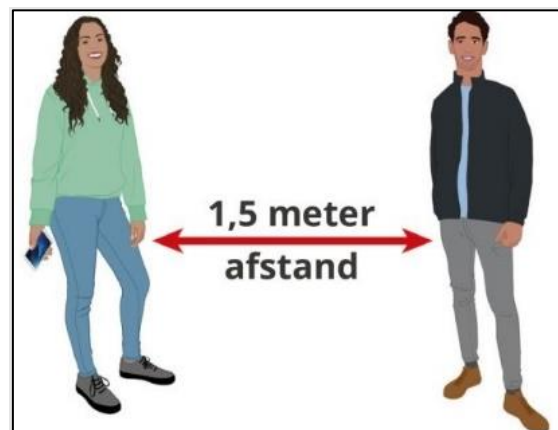


Figure 111 Pictogram: 1,50-meter distance by Pharos.



Figure 112 Pictogram: 1m50 by NCCN.

- PowToon-Video face masks (Figures 113, 114, 115 and 116): standard and adapted versions (subtitles, Belgian-French Sign Language (LSFB), an audio introduction and an audio description).

These were presented to all groups. In addition, an LSFB version was only shown to the intermediaries of people with hearing impairment, and a translated version in Albanese regarding quarantine was presented to the roundtable discussion with intermediaries of foreign-language speaking people.

Concerning PowToon-Video face masks: Video is original material made by NCCN and was available on the info-coronavirus.be website

Audio Description (AD), Audio Introduction (AI) and subtitles were specifically developed for the project and added to the video to be evaluated in the RTs. LSFB-interpreting was also added to the animated video within the project to be evaluated in the RTs. (NCCN & UA)

Concerning PowToon-Video Quarantine: This animated video was developed by NCCN for the project as only a Dutch original existed.



Figure 113 PowToon-Video Face mask.

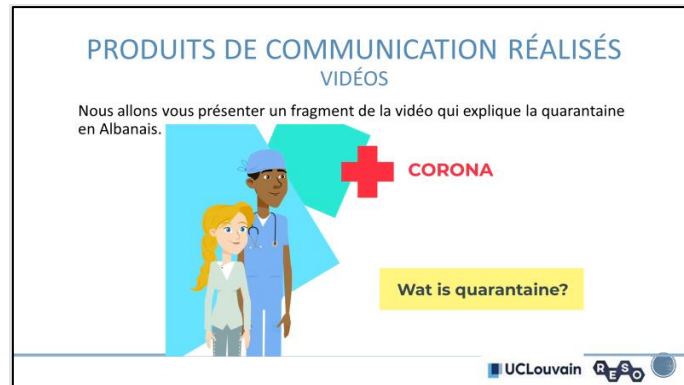


Figure 114 Quarantine video in Albanian



Figure 115 PowToon-Video Face mask interpreted.

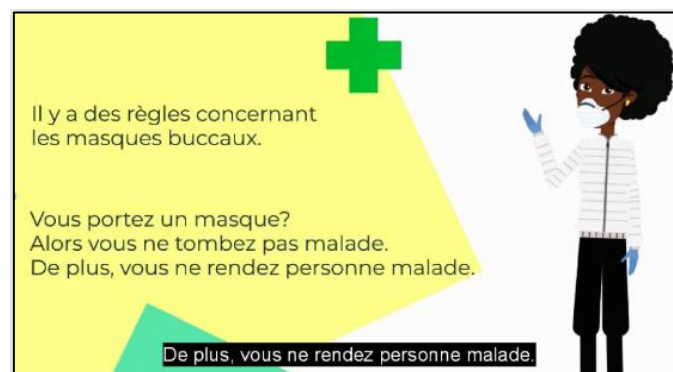


Figure 116 PowToon-Video Face mask with subtitles.

- **Infographic on vaccination** (Figure 117). The PDF was accessible on screen-reading software for the people with visual impairment. This was presented to all groups. The Image sheet on vaccination is original material by NCCN and was available on [the info-coronavirus.be](https://www.info-coronavirus.be) website.

The original Dutch version was translated by NCCN to French.

The PDF was adapted by Eleven Ways for the project (reading order, text alternative in the code of the PDF) to make it more accessible.

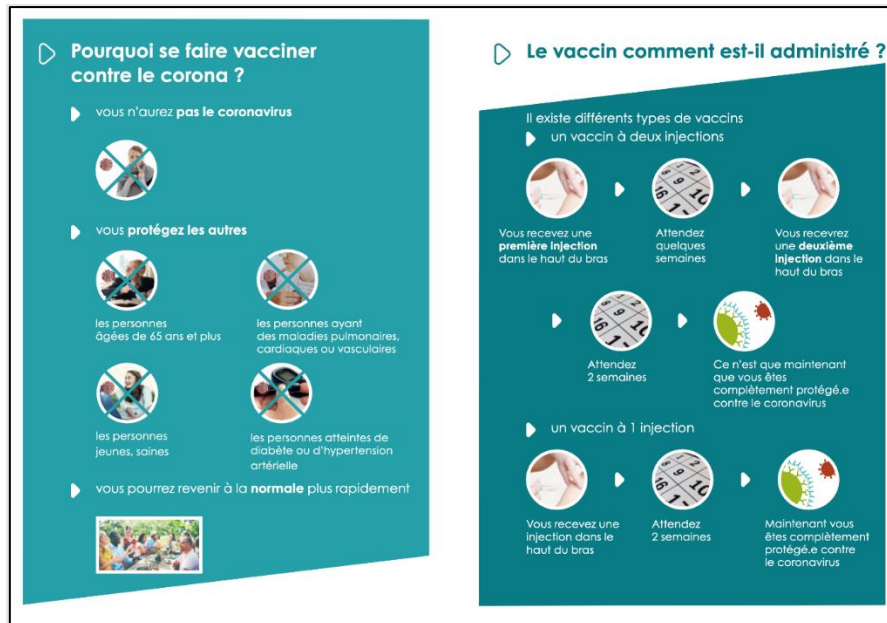


Figure 117 Infographic on vaccination.

- **Info-sheets** presenting the vaccine and the virus and its translated version in English (Figure 118).

Groups to whom it was presented: intermediaries of foreign-language speakers with low socioeconomic backgrounds.

This product was made in Dutch by De Zuidpoort, and also translated in French by the association.

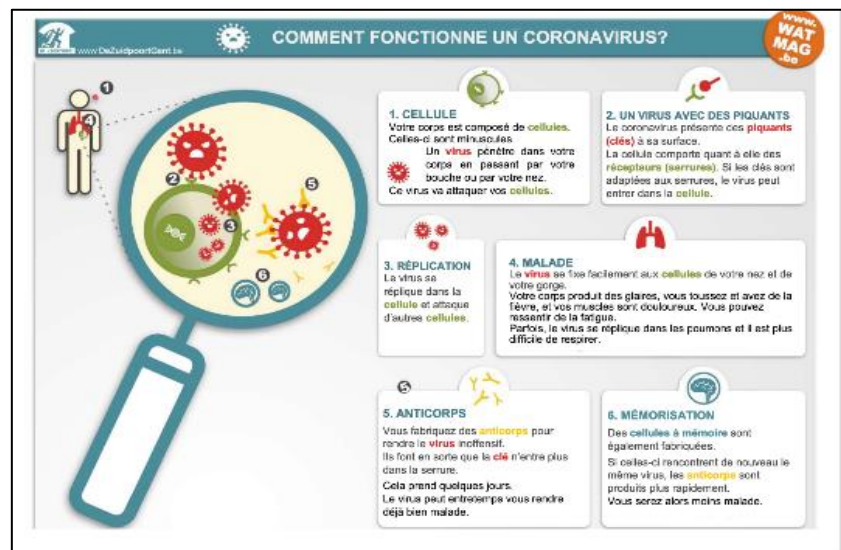


Figure 118 Info-sheet explaining COVID-19 (virus and vaccination).

4.2 METHODS

4.2.1 RECRUITMENT OF ORGANISATIONS FOR THE ROUNDTABLE DISCUSSIONS

As part of the second work package (see Chapter 2 in PART 4 of the report), consisting of the analysis of material produced by organisations specific to the target audiences identified for the project as well as the collection of their opinions on the federal government's communication on COVID-19, associations were identified for their experience with and knowledge of the various audiences. They were identified on the basis of a search on websites specialised in the social field such as the Guide Social, as well as by a Google search on the basis of the following keywords: associations; people with visual impairment; people with hearing impairment; precarious public; disadvantaged people; immigration; exile; undocumented people. Only organisations active in Brussels and/or Wallonia were selected.

The organisations were then contacted by means of an email explaining the project and referring to a questionnaire. In this email, the possibility to take part in the other different steps of the project was also mentioned: to be part of the project's steering committee; to participate in the roundtable discussions; to help in the recruitment of people from the target groups for the focus group discussions. If they were interested in participating in any of these, organisations had the opportunity to get back to the team by email or phone. Video-conference meetings were also organised with several associations. Among these were also federations that passed on information about the project to their member organisations, some of which spontaneously joined the project without having been contacted beforehand by the UCLouvain team.

In the two weeks prior to the roundtable discussions, organisations were contacted by phone to ensure their participation. As the roundtable discussions for people with sensory impairment were not sufficiently filled at that time, a new search for organisations was carried out and contacts were made by phone and then confirmed by email. Other partner associations were also involved in the recruitment of some participants by contacting them themselves or by passing on their contact details to the UCLouvain team.

The people invited to these roundtable discussions were therefore intermediaries of organisations (referred to as intermediaries or participants in the rest of this report). In total, 27 people participated in the roundtable discussions. It should be noted that at the roundtable discussions with people with sensory impairment, **some of the intermediaries were also experts-by-experience**: 1 and 5 persons respectively themselves had a visual or hearing impairment.

After the recruitment of all the organisations, several emails were sent to transmit the participants:

- Information about their participation
- An informed consent form signed by the project leader for UCLouvain, a researcher and the participant
- The material presented during the roundtable discussions so that they could already read or see it
- The Zoom link to access the roundtable discussion and a brief explanation of how the videoconference platform works.

4.2.2 DATA COLLECTION

The data were collected through roundtable discussions lasting between 2 and 2 hours and 10 minutes ($\mu = 2$ hours and 05 minutes). Due to the health situation and prevalent prevention measures, the meetings took place virtually via the Zoom videoconference tool. They took place over two days, on Tuesday May 4th for people with sensory impairment, and on Wednesday May 5th for people from disadvantaged socioeconomic backgrounds. Each roundtable discussion included a facilitator, a moderator, two observers and organisations specialised in the identified audiences (between 5 and 7 associations per roundtable discussion). A PowerPoint was presented in each roundtable.

The roundtable discussions were conducted according to a standard interview schedule developed by Thomas More⁴⁹ and provided to the UCLouvain team, who translated it into French. This schedule comprised three phases:

1. A phase with **general questions** regarding the target group's information intake, the most used channels and forms of communication, and the barriers encountered by the target group in accessing information.
2. A phase where **urgent communication** material was presented to the organisations in order to collect their feedback on adaptations of crisis communication tools.
3. A phase where **durable communication** material was presented to the organisations in order to get their feedback on adaptations of communication tools made by the federal government.

The interview guides adapted for each roundtable discussion are presented in Appendix M.

The discussions were recorded so that they could be transcribed. Extensive notes were taken by the observers during the roundtable discussions. These notes were completed by a second note-taking by listening to the recordings of the meetings a few weeks later.

4.2.3 DATA ANALYSIS

The roundtable discussions were analysed on the basis of a thematic analysis scheme agreed with Thomas More, in order to extract the information useful for this report, according to several themes identified and sub-themes.

General access to the flow of information issued by the federal government:

- The form in which the target audiences get information
- The channels through which the target audiences get information
- The barriers faced by these audiences
- Recommendations specific to these groups to improve their access to information

Product evaluation:

- Crisis communication materials (texts, audio files, press conferences)
- Durable communication material (pictograms, video, fact sheets, brochure)

⁴⁹ Sarah Talboom & Wessel van de Veerdonk

4.2.4 ETHICS

Prior to sending out the survey to the stakeholders, **ethical clearance** was sought for all partners by the coordinating team (Prof. dr. Mieke Vandenbroucke, UAntwerpen) from the Ethics Committee for the Social Sciences and Humanities (EASHW) at the University of Antwerp. In order to receive positive clearance, the following documents were submitted to the EASHW:

- Methodology of the study (version 2, submission date 22/03/2021);
- Information sheet for the participant (version 3, submission date 02/04/2021);
- Consent form for the participant (version 1, submission date 04/03/2021);
- All the diaries or surveys that will be presented to the participants (version 1, submission date 04/03/2021);
- Example of the confidentiality statement for all employees in non-anonymous research (version 1, submission date 04/03/2021).

The activities for the roundtable discussions conducted in Work Package 3 received a final positive clearance on the **2nd of April 2021**. In accordance with the ethics protocol outlined in the EASHW application for these activities, participation in the roundtable discussions proceeded with **informed consent**.

The UCLouvain Ethics Committee was informed of the project. As this project does not fall under the Law of 2004 regarding Human experimentation, the ethical clearance received from the UAntwerpen ethical committee was deemed sufficient, and no further approval was sought on the French side of the research activities.

The aims of the study were explained clearly to all participants. They were outlined in the first email sent to the organisations. In addition, they were reminded in an email sent to the organisations prior to the roundtable discussions. An informed consent form was also attached to this email. It was signed by all roundtable discussion participants. Each of these forms were also signed by a researcher and the research coordinator for UCLouvain. More specifically, in this form, participants were informed that they could end their participation in this study at all time after notifying the research team. They were also informed that the personal data collected would be treated confidentially. By signing the form, participants confirmed that they had been informed of the content, conditions and duration of the study and had understood the given information. They agreed that the data would be collected, processed and used for research and for the purpose of developing recommendations for inclusive crisis communication on COVID-19 in Belgium. Finally, when analysing the data and writing the report, the team carefully respected the anonymity of the participants. The recordings of the roundtable discussions and transcripts were kept in a secure file accessible only to members of the UCLouvain research team.

4.3 RESULTS

4.3.1 GENERAL ACCESS TO THE FLOW OF INFORMATION ISSUED BY THE FEDERAL GOVERNMENT

The participants in the roundtable discussions were invited to comment on the accessibility of the messages about COVID-19, the channels of diffusion and the preferred forms used by the target groups. In this section, we present the detailed results by target group: people with visual impairment, people with hearing impairment, French-speaking people with low socioeconomic background, foreign-language speaking people with low socioeconomic background. A general summary of the results obtained is presented at the end of the chapter.

4.3.1.1 PEOPLE WITH VISUAL IMPAIRMENT

CHANNELS USED BY PEOPLE WITH VISUAL IMPAIRMENT

Generally, the most frequently accessed information channels for people with visual impairment are: **their immediate networks, and then all other types of media** (TV, radio and internet for those who are familiar with the internet). The amount of information sources was said to be large, giving the possibility to choose one's preferred channels

As a result, organisations did not really see the use of alternative methods. However, many organisations set up **hotlines** for their target audiences in order to use direct channels, which are often more effective than indirect methods of communication. Others regularly contacted their beneficiaries to make sure they were okay and that they had no particular questions about the crisis. Thus, many people were able to share their questions, but in general, this was done in a reactive rather than proactive manner. Beyond those that resulted from their direct initiatives, few organisations had specific requests from their target audiences.

In addition, **social networks have been used extensively** since the beginning of the pandemic. Communication groups have been created among people with visual impairment in order to share good practices. These communications have been done mainly through the WhatsApp application. Subsequently, other channels such as the video conferencing tools Zoom and Teams were used, especially for the setting up of roundtable discussions. Initially, some structures set up **individual exchanges** with their beneficiaries but the need to share with other people with the same disability was felt. Therefore, to frame these moments, some organisations set up **virtual roundtable discussions**. During these meetings, people had the opportunity to share good practices and discuss the « System D » that was put in place during the crisis. Some of these roundtable discussions were also open to professionals who work with people with visual impairment to answer their questions and allow them to better explain the situation to the people they care for.

Finally, many people with visual impairment were able to rely on **the network of associations and helpers** that revolves around people with sensory impairment. These organisations and people are already used to helping and having a discourse that is adapted, as well as a relationship of trust already established with people with visual impairment. Because these organisations already have the trust of the public, they have been able to quickly communicate informally and be active in providing information in an adaptive and evolving manner. In addition, many of them had already produced adaptive materials before there was any administration production, either regional or federal.

FORM USED BY PEOPLE WITH VISUAL IMPAIRMENT

People with visual impairment did not really use specific forms and sources of information. The forms used depended on each person's profile and preferences. Therefore, it is not possible to associate a specific form to the population of people with visual impairment.

Peer validation has also developed widely during this period. People have access to a lot of information, but they do not know which one is the right one, so they go to social networks to get help from others. **People identify with those who have the same disability** as them and who have managed to find solutions to deal with certain barriers.

People without access to digital technology had to rely on their family or friends to get information because they did not necessarily have the desire or the energy to look for the information themselves. Blind people have generally been very disadvantaged, because of their increase dependence on others due to changing physical environments as stressed above.

BARRIERS EXPERIENCED BY PEOPLE WITH VISUAL IMPAIRMENT

In general, the information is perceived as **being available and sufficient**, although it comes from a large number of sources, making it **somewhat difficult to identify the right information**. Indeed, the participants to the roundtable discussion pointed out that there are so many different websites, at regional and federal level, or in relation to specific thematic issues, that the information is disparate and not always easy to find.

In terms of access to visual content, many associations received feedback and expectations from the community of people with visual impairment. In general, and **in crisis situations, there is a tendency to adopt very visual content, which is completely inaccessible for people with visual impairment**. The latter also faced many technical problems related to information. For example, during the press conferences, facilities for people with visual impairment are not provided. On the one hand, when **visual content such as PowerPoints or graphics** are used in an improvised context such as press conferences in a crisis situation, these are not accessible to people with visual impairment. On the other hand, **the lack of visual translation or audio description was repeatedly emphasised**. For example, people with visual impairment did not know directly who was the person speaking because their name was not announced but simply written on an informative banner. In addition, subtitles, especially those related to translations of foreign language speeches, are not at all accessible to people with visual impairment, who therefore miss out on a whole part of the information. These barriers are both a source of great frustration and may potentially fragilise (a participant even said “endanger”) people with visual impairment due to lack of information.

The needs that are most prevalent and least met by people with visual impairment are related to **their fears within the public space and physical environment**, for example when circulation lanes, are established in certain areas. These measures have, in fact, been the source of many constraints because people with visual impairment, for example, do not know how to position themselves in a queue, they do not know where the queue starts, which part of the street can be used by pedestrians, etc. Therefore, the organisations found that there was a serious lack of information in this area, which meant that people with visual impairment had to adapt without having any specific information or idea of what they should do. People with visual impairment

thus have **relied on the goodwill of people in the public space, which increases their dependence on others**. Organisations working with people with visual impairment reported with frustration that there has been very little consideration of their specific, especially since the pictograms regularly used to inform the population in the public space, are not accessible to people with visual impairment. People with visual impairment are therefore really confronted with their situation of dependence and this was a very important message they conveyed to their networks. This observation extends well beyond crisis situations, to include general communication situations related to the public space planning.

In addition, the organisations received a lot of feedbacks from their target audiences when the vaccination campaign started. In particular, it was reported that booking a vaccination appointment was particularly complicated for people with visually impairment. For example, to book an appointment to get vaccinated, **the checkboxes on the online form were not adapted for screen reading** and thus, people with visual impairment were checking the boxes somewhat randomly, hoping it would work, which was rarely the case. The alternative set up to deal with this obstacle was to contact the vaccination platform by phone, yet in turn this was rarely available.

Furthermore, concerning certain tools developed by the federal government, organisations have received feedbacks saying that the materials are not correctly adapted for people with visual impairment: **contrasts are not strong enough, the font is too small, the images are not all (audio-)described and the documents are not always accessible and structured to facilitate reading with voice synthesis and other screen-reading software**. There are also technical difficulties with the hypertext links which could be transformed into text with a link behind to allow a better reading by the text-to-speech software. **These same difficulties were reported in relation to the official websites dedicated to COVID-19**. There is a lot of information with links that always refer to other sites or other documents, yet these are not always accessible, which makes the navigation very complicated. Sometimes, some web pages require that all the text content be read in text-to-speech, while at the end of the document, a more pleasant and accessible video is available that repeats the entire message. These elements make access to information tedious for people with visual impairment. In addition, concerning the video supports, it is to be noted that not all the capsules concerning the measures to contain the pandemic are accessible. For example, for the one concerning the use of the facemask, there was, on the one hand, no audio description and on the other hand, the information was very theoretical and did not explain in practice how to put on the mask. This kind of deficiency was a source of additional concern for people with visual impairment.

Moreover, the organisations that participated in the roundtable discussion highlighted that not enough attention has been paid so far to the needs of elderly people with visual degeneration who no longer have access to their preferred means of communication, such as newspapers or television. These people find themselves isolated and without information because their main information channel is no longer accessible to them, yet they do not have access to technology, and have not developed the same skills as people who were born with visual impairment. When hotlines exist to answer users' questions, they were said to not be sufficiently available. Although many people realised that the future was technological and that it was important to adapt to it in order to have correct access to information, it is still necessary to pay attention to the fact that there is a digital divide and that it contributes to an inequality of access to information, especially for groups that are already vulnerable due to their socioeconomic status or sensory deficiencies.

When presented with the different products, several organisations asked if and how they were made available by the federal government. Finally, the participants stressed what they perceive as a paradox **between the government's will to make content accessible to people with visual impairment and yet a lack of understanding of their real needs**. There was a fear that a lot of resources are spent on developing products and materials that do not meet their targets.

GENERAL CONSIDERATIONS FOR COMMUNICATING WITH PEOPLE WITH VISUAL IMPAIRMENT

The majority of the participants highlighted that **it is necessary to consult the end-users to do things correctly and address their needs in the most effective and adequate way**. It is necessary to ask the opinion of the people who will use this material on a daily basis and not to assume the way they will use it, but also to involve the representative organisations of these publics and the community networks which can relay the feedback from the field. Indeed, if a person is involved from the beginning of the process, they will be able to communicate the information to others and thus contribute to an increased use of the material, making it more effective.

In addition, **it was stressed that the communication channels should not be multiplied, and not be made too specific**. These adaptations initially created for people with visual impairment should also be shared with the rest of the population because people other than those for whom these materials are intended would probably be very happy to use these adaptations as well (cf. the Stib/MIVB voice announcing the stops in the subway initially developed to inform people with visual impairment but used by a lot of seeing-users). Communication adaptations must be seen as a whole and not just in relation to a specific group. The participants called for more collaboration between the federal government and the regions and communities to mutualise their resources and develop a single material rather than each creating their own media.

Moreover, digital accessibility has been mentioned many times as a fundamental issue in communication, but it is crucial to find other alternatives, especially for those who become sensory impaired later in life and who do not have access to digital technology. For example, as part of the vaccination campaign, QR codes were sent to people, but these formats are not adapted for people with visual impairment or those who suffer from the digital divide. It is therefore necessary to find alternatives because the messages currently relayed by the federal government touch on vital issues such as health and everyone should be able to access them regardless of their socioeconomic status or disabilities. It could be useful to make adaptations that can be broadcast on TV - which is the most consulted media according to organisations - to be sure to reach a maximum of people.

On the other hand, going beyond the need to receive the right information at the right time, increased **needs for support within the living environment** have been underlined by many organisations. **Increasing the accessibility of prevention messages for the target audiences such as people with visual impairment would therefore involve much more than adapting existing messages, but would also require adjustments to the environment**. In the absence of such adaptations, some organisations report that they have set up support services for very concrete steps, whether or not related to the health situation. It would therefore be interesting if the federal government also developed these kinds of adaptations.

Lastly, it is necessary to offer contact alternatives for all people who have several problems or several types of disabilities. It is therefore necessary to offer alternatives, complete and uniform communication channels for all Belgian citizens and thus avoid wasting available resources by

developing the materials that already exist so that they consider the specificities of all publics. It was recommended that the relevant organisations be consulted, and that the governments listen to their requests and their needs. The importance of communicating with relevant intermediaries to get advice and recommendations was stressed, as they actually are more aware of the needs of the people they work with.

4.3.1.2 PEOPLE WITH HEARING IMPAIRMENT

CHANNELS USED BY PEOPLE WITH HEARING IMPAIRMENT

The participants reported that people with hearing impairment get information through different channels, and first **within their own personal networks** and **through peers**. In fact, according to one of the participants: "the first person who hears something spreads it out within the network".

Secondly, **organisations** reported to provide specific spaces through which people with hearing impairment could get information. Before the crisis, some centres were open to people with hearing impairment where they could go in person and exchange with professionals or peers. However, with the crisis, this type of face-to-face communication has become more complicated. Thus, communication was mainly done via the Facebook pages and other social networks of these associations. People with hearing impairment had sometimes the opportunity to ask questions in the chat or to call certain people from the association by video conference through these social networks. In addition, many associations disseminated information via these channels.

More generally, before the crisis, social networks and digital technologies were already used by many people with hearing impairment for other reasons. With the crisis, this public has used this type of media even more. Thus, according to most of the participants in the roundtable, **people with hearing impairment have mainly informed themselves about the coronavirus via social networks** and more specifically, via Facebook. The problem they encountered is that it is sometimes difficult to distinguish reliable from unreliable information on this type of media. This problem is exacerbated by the fact that the source of the message is not always clearly identified.

Not all people with hearing impairment have access to digital technologies and the internet, as emphasised by several experts by experience. Among the deaf people, a part of the elderly have to face the digital divide. In addition, some of these deaf and elderly people do not master sign language. Thus, it is necessary to keep in mind that the deaf and hearing impaired population is very diverse, with diverse needs too. Among the people with hearing impairment, some will therefore prefer the **written press**, for example people who have become deaf and can read but cannot sign. Some would mainly choose **television**, for example hearing impaired people with hearing aids device.

Finally, deaf people who speak sign language (LSFB) greatly appreciated **the interpretation of press conferences**. According to the participants, they also appreciated a lot the **introduction of a remote interpretation service, via videoconference**, on the www.info-coronavirus.be website. This service allows deaf people to contact an agent of the coronavirus information centre while benefiting from live interpretation. They would however have liked this line to be available during longer hours of the day.

As mentioned above, people with hearing impairment, as well as hearing people, **obtain information about the coronavirus through a variety of channels and this depends on their**

profiles and needs. In this context, it appears necessary to multiply the channels in order to reach most of the people constituting this group. One interlocutor emphasised: "we must not forget that deaf people are like all citizens, they need multiple information, continuous and repeated on several channels". More generally, it was said by our interlocutors that this multiplication of channels must be done both for durable communication and, as much as possible, as well for crisis communication.

It is important to keep in mind that some people with hearing impairment are very isolated. Some of them are not affiliated to associations, according to some participants. This isolation has sometimes increased during the crisis. The network is however crucial for this target group in accessing information. It is therefore important to develop broader strategies to prevent isolation of the people with hearing impairment.

FORMS USED BY PEOPLE WITH HEARING IMPAIRMENT

The first result concerning the forms of information materials on COVID-19 people is that **the information delivered during press conferences is sometimes too complex to understand, even when it is interpreted.** Thus, according to the participants in the roundtable, people with hearing impairment will sometimes need a mediator, to re-explain, more simply, some of the information delivered. Mediation was mentioned by several interlocutors as being indispensable for many people with hearing impairment. This need depends on their profile. As mentioned above, the deaf and hearing impaired population is very diverse. Factors other than disability, such as age and general literacy are relevant when considering accessibility issues.

In order to make information more accessible to people with hearing impairment, **some associations of people with hearing impairment themselves, have created videos to simplify the information.** For example, in collaboration, two associations, one of which was present at the roundtable, created videos that summarise and simplify information given at the press conferences. These videos are a few minutes long and usually include some key words to support sign language interpretation. According to several participants in the roundtable discussion, the federal government should be particularly involved in the production of this type of adapted material. Indeed, it is not always easy for associations to re-explain technical information when they are not health experts themselves, and/or do not feel sufficiently informed about the government's motives. In addition, organisations do not always have sufficient resources and therefore cannot always make these videos in an optimal way. For example, subtitles or pictograms require time and a certain budget. It was recommended by one stakeholder that SPF Santé publique hire a permanent accessibility team that could be called upon in times of crisis to make the communication as accessible as possible. The adaptation of these materials by the federal government would also contribute to disseminate it more widely.

More generally, concerning the form of the products, the participants mentioned that the people with hearing impairment who master sign language prefer content with interpretation (in their sign language). People with hearing impairment who do not master sign language prefer written content that is as simple and clear as possible. A significant proportion of people with hearing impairment have as a matter of fact difficulty reading. Visual content (images such as pictograms) are specifically appreciated by all people with hearing impairment. The clearer these visuals are, the more accessible the information will be to this public. Nevertheless, it was emphasised by many participants in the roundtable discussion that the existing ones are not

always clear enough. It was advised to call upon associations specialised in the creation of pictograms and to collaborate with them rather than inventing new material. It was also said that, for the more specific audience of deaf signers, producing images with sign drawings would increase the accessibility of the information.

Therefore, it was said that in the materials, **it is interesting to use simultaneously different forms: sign language interpretation, visuals and texts**. Videos should try to combine all these different forms, as much as possible.

BARRIERS EXPERIENCED BY PEOPLE WITH HEARING IMPAIRMENT

Several barriers were mentioned by the participants in the roundtable discussion in accessing information by people with hearing impairment. Specific attention was given to access to information issued by the federal government.

One of the first barriers encountered is **that communication is mainly done digitally**. However, a part of the deaf and hearing impaired population - mainly the elderly - has no or limited access to the Internet. One of the participants referred to a double divide: "the verbal divide and the digital divide". The combination of the two types of divides makes access to information even more complex for people with hearing impairment. Therefore, personal communication and/or television and/or paper media (such as newspapers) is used as the main source of information by this subgroup. Yet, this type of information source was, according to some participants, not used enough by the government. During the crisis, **the physical spaces were closed**. Some people with hearing impairment were used to getting information mainly through live personal communication.

Then, **the navigation of the info-coronavirus.be website was said to not be intuitive enough**, according to the participants. Indeed, when one arrives on the home page of the site, it is necessary to choose between one of the national languages or English before being able to access the entire website. On this homepage, there is no possibility to choose sign language or Easy Language ("*langage facile à lire et comprendre, FALC*"). Many deaf people do not read or have a low level of reading. The accessibility of the website is therefore hampered from the start according to some participants. In addition, after selecting one of these languages, it is complicated to find adapted materials (such as videos in sign language or documentation in FALC) among the amount of information found on the website. According to the participants, these types of materials easily "get lost" among the multitude of other information.

Another difficulty/barrier was mentioned for foreign deaf people. **Some foreigners do not understand national sign languages**. International sign language was cited as a possible solution, yet it might create another type of discrimination as not all deaf people do master it. To make up for this it was suggested to produce visual materials that are as clear and explicit as possible.

Furthermore, **the information transmitted by different media often needs to be re-explained to be fully understood**, according to many participants in the roundtable. Mediators play an important role in this. Dialogue is fundamental for a better understanding and appropriation of information. Personal communication is particularly effective but this need has not been sufficiently addressed by the federal government.

Moreover, the remote interpreting service to contact the coronavirus information centre was greatly appreciated, but the hours available for the video conference calls were not sufficient, according to the participants.

Finally, one of the more general barriers encountered, mainly for people getting information on social networks, was **sorting out reliable and unreliable information** among the flow of information found and/or received.

GENERAL CONSIDERATIONS FOR COMMUNICATING WITH PEOPLE WITH HEARING IMPAIRMENT

In order to increase the accessibility of COVID-19 information, the ideal solution would be, according to some organisations, on the one hand, that the **government produces more adapted content**, such as videos summarising the information delivered. On the other hand, in the creation of this content, it would be interesting **to set up more collaborations between the government and different associations** working with people with hearing impairment. A participant suggested that the SPF santé publique could set up a permanent team responsible for accessibility in general. The expertise of this team could be called upon in times of crisis. Furthermore, it was said that one of its roles could be favour more synergies between different actors and to centralise the existing material which is currently very scattered

It was advised that materials be tested before being disseminated. More generally, involving the public in the creation and/or validation of materials is crucial. No one understands their needs better than them.

Multiplying the channels of diffusion and the form of the messages was said to be important to reach all the deaf population which is very diverse: signers and non-signers, those with access or no access to internet, those with or without reading and writing skills, etc.

4.3.1.3 FRENCH-SPEAKING PEOPLE WITH A LOW SOCIOECONOMIC BACKGROUND AND/OR A LOW LITERACY LEVEL

CHANNELS USED BY FRENCH-SPEAKING PEOPLE WITH A LOW SOCIOECONOMIC BACKGROUND

According to the associations met during the roundtable discussion, French-speaking people from disadvantaged socioeconomic backgrounds and those with low literacy levels **tend to not actively seek out information**. Rather, they received it passively through peer exchanges.

However, the large network of field associations aimed to inform their target audiences as best as possible by distributing information directly to their beneficiaries, or through people whom the communities trust and who can therefore pass on messages to these groups more effectively. Thus, shop owners and municipality employees or stewards have been recruited to provide information to the population. These intermediaries are particularly effective in transmitting messages to people with low literacy skills. In addition, some organisations are in contact with community centres and other places where people from disadvantaged socioeconomic backgrounds live, which also enables them to reach other categories of the population that are initially difficult to inform. To do so, these organisations have set up cultural mediation programs to enable them to best adapt to the people they are communicating with. In order to reach the most precarious people, partnerships have been set up with field associations such as the *Samu Social*.

In addition, organisations have also communicated about COVID-19 through **newsletters**, not necessarily to the public directly but to professionals who can share it with their beneficiaries. The purpose of these flyers, in plain language, was that everyone could understand them, regardless of language or educational level.

Furthermore, many organisations have found that the official websites are very little consulted. The population tends to prefer direct contact with local people, such as the employees of municipal administrations. This led some municipalities to set up **hotlines to answer questions and needs** of the population, especially for people who are facing the digital divide. Others, based on the same observation, created a **tab on their website**, which provides information on how people in the target group could manage their daily lives. Finally, many of the organisations shared information via their networks to enable quality communication. Based on the same observations, an organisation developed a collaboration with a **local television station**, to create videos about the vaccine. These videos are posted on the TV station's Facebook page but also on the TV station itself after the news. The television channel was seen as an effective way to reach people who may not have access to other channels such as the internet. They preferred working with a local station rather than a national one, because the former is still widely watched by the population in the municipality in which the organisation works.

Moreover, reflecting on the influencing power that some people with a certain reputation within a specific community might have within this community, one organisation reported to have created collaborations **with some “local influencers”**. These influencers use their own approach, and speak in the same way that of the targeted population. As a result, the message is said to be well understood by the, with positive results in terms of information transmission. Similarly, another organisation reported to have created a partnership with local professionals, such as pharmacist and general practitioners, who are known to the population, to deliver prevention messages that people will more readily embrace because they find that the people they trust also embrace them.

In the end, there were a lot of examples of direct communication delivered locally. The participating organisations highlighted the importance of direct information through trusted parties to reach out to the target audience more effectively.

FORMS USED BY FRENCH-SPEAKING PEOPLE WITH A LOW SOCIOECONOMIC BACKGROUND

According to the feedback received by the organisations present at the roundtable discussion, seeking information on COVID-19 **is not really a major concern for people from disadvantaged backgrounds** or with low literacy levels. This population was described as tending to not actively seek information, and to be particularly vulnerable to fake news that would reach them through social networks, contacts on the street, etc., with a lack of ability to critically analyse such information. According to one participant, in Brussels, around a third of the population over 15 years old is not able to understand basic medical information about themselves. Thus, in the sharing and belief in fake news, there is not only a lack of access to information or a lack of proactivity in searching for it, there is also a lack of ability to understand the information received. To address this issue, one organisation **created infographics** on how to react to all the information received, and thus know what to do with the information, where to find it, how to sort it out, how to analyse it. The organisations present at the roundtable discussion gave examples of initiatives meant to help people make sense of the information and critically analyse it. Lastly,

the difficulty of being face with what was called the current “infodemic”, with rapidly evolving information, was highlighted. Rather than producing regular up-to-date material, one organisation explained that they initiated discussions to help people reflect on the impact of the pandemic on their daily lives, and on their health and mental health. Support materials were used and shared during these discussions to ask people which ones they knew, how they understood it, how they tried to apply the rules in their everyday lives.

Some organisations developed **simplified written materials for distribution to the population**, in particular a brochure to remind people of protective measures but also to explain them, as well as leaflets to answer the questions that the target group has about vaccination. In addition, **flyers** containing as many images as possible and as many simple sentences as possible on the measures set to contain the pandemic were created. These materials were sometimes even proofread by a French foreign language teacher to ensure that they were indeed well adapted for people for whom access to a formal language is complicated. Similarly, many organisations produced flyers on vaccination, including some containing useful numbers to contact in case of questions. For the elaboration of these materials, most of the organisations based their work on the official texts in order to be able to make links with what was transmitted by the federal government.

In addition, to effectively address concerns about immunization, one organisation developed a **webinar for professionals** who work with French-speaking audiences from low socioeconomic backgrounds or with low literacy levels, so that the former would be able to inform the latter correctly and with appropriate vocabulary about vaccination. In the same vein, videos were produced with local epidemiologists and infectious diseases specialists, as well as the director of a local vaccination centre and a renowned scientist, to better communicate with the target group and encourage their support for the vaccine. Another organisation developed materials on vaccination through a health promotion lens. These materials are intended to enable people to be properly informed and to have the keys to make relevant decisions for themselves.

BARRIERS EXPERIENCED BY FRENCH-SPEAKING PEOPLE WITH A LOW SOCIOECONOMIC BACKGROUND

As mentioned in the previous section, people with lower socioeconomic backgrounds were said to lack critical skills to analyse the information related to the health crisis and as a result, they are very vulnerable to **fake news. These have been very present since the beginning of the pandemic**, especially as information is transformed by word of mouth. Organisations regret that it is very difficult to discredit fake news through the same channels as those through which they were disseminated in the first place. Indeed, fake news discredit all the reliable communication tools that would arrive after their appearance. Moreover, bringing new information through another channel would even reinforce fake news because people do not trust other channels than the ones initially used to get the first information, which creates a real problem for the transmission of proper information to the target audiences. This is reinforced by the fact that certain **number of people do not have access to reading and/or writing skills, which makes the available materials unusable since they contain a lot of text**. Often, in these cases, it is difficult to get the messages across the target groups.

In addition to the lack of proactivity in the search for information or the lack of understanding of the information received, the participants also mentioned a phenomenon of tiredness. It has

been a year since the crisis started, now the population does not want to hear about the coronavirus anymore because it is omnipresent and therefore it blocks the reception of new information, thus fake news takes over. Yet the health crisis situation remains a source of anxiety for many people, especially those from lower socioeconomic backgrounds who have seen their daily lives disrupted by the measures decreed by the federal government to contain the spread of the virus. As a result, organisations are wondering how they should operate to bring information to people who really need it, but without being an additional source of anxiety.

At last, organisations highlight that there may have been **a lack of harmony, perhaps due to the urgency of the situation, in creating the communication tools**. Therefore, people do not know what they should look for, nor what source they should believe in. Rather than developing many new materials, it might have been more interesting to mutualise resources and work with that which already exists.

GENERAL CONSIDERATIONS AND RECOMMENDATIONS FOR COMMUNICATING WITH FRENCH-SPEAKING PEOPLE FROM LOW SOCIOECONOMIC BACKGROUNDS OR PEOPLE WITH A LOW LITERACY LEVEL

The participants in the roundtable discussion insisted on the importance **to consult the actors working in the field, in order to be aware of** the expertise of that people develop in their individual lives as they adapt to the difficulties encountered. Some of the organisations that participated in the roundtable discussions were public administrations, used to being called upon to manage communications. To do so, they work in close partnership with a network of field associations, that are in close contact with the target audience and therefore more aware of the specific needs to be considered when developing public policies. It is through meeting each other and developing open-minded and inclusive working groups that the barriers and impediments to accessibility of the federal Government's messages may best be understood.

Moreover, the population adheres more easily to health measures when it is valued by health professionals and well-known and entrusted people from the community. Therefore, depending on the targets to be reached, it is necessary to identify influential and trusted individuals who can convey the messages to them.

Furthermore, **actions should also be taken in terms of training and support for the people who create these materials**. Experts in digital accessibility should be called upon to develop and disseminate the information communicated via the websites.

The participants suggested that politicians should pay attention to their oral communications, which according to the participants tend to reveal their ignorance of the reality of people's lives (e.g. the possibility of playing golf and kayaking again during the first relaxation when the majority of people cannot afford such sports). The organisations emphasised the need to better adapt their communication of the targets they want to reach. If the message is too smooth and polished, it does not speak to people and might create mistrust.

4.3.1.4 FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

CHANNELS USED BY THE SPECIFIC TARGET GROUP

According to the participants, people who do not speak French and who are in a precarious situation inform themselves and receive information about COVID-19 mainly **through their family and friends, their peers or certain community intermediaries**. Several people mentioned that

information circulates and is sought in religious places, schools, associations or other community spaces. One participant mentioned that information is sometimes passed on by children to parents. Another participant mentioned that people tend to trust more the members of their communities. As a consequence, it is very effective to work with them to deliver information.

Several participants in the roundtable discussions emphasised that the **proximity professionals** - doctors, nurses, pharmacists, social workers, teachers, etc. - played an important role in the transmission of information related to COVID-19. One speaker explained that psychology and cultural mediation modules were offered to some field workers so that they could communicate more effectively with this public. More generally, **trust seems to play a crucial role in the choice of information channels** by non-French speakers from disadvantaged socioeconomic backgrounds, as emphasised by many participants. Therefore, proximity channels are the ones favoured by this public. On the contrary, the information delivered by the government sometimes generates suspicion and mistrust among this target audience.

During the crisis, a significant amount of information was transmitted **via social networks**, such as WhatsApp, Facebook or Twitter and sometimes more specifically on pages created by certain groups. Nevertheless, as part of this population does not have access to the internet or digital technologies, information **also circulated through direct personal contacts**.

According to the participants, some non-French speakers from lower socioeconomic backgrounds obtained information **from television**, especially when they had access to **channels in their own languages**. In addition, foreign-language speakers seek or receive information from **«community media»**. These medias are most of the time run by independent journalists, according to one participant on the roundtable discussion. It was specified that large diasporas often have their own media, in paper and/or digital versions.

Finally, according to the participants, people who do not speak French and come from disadvantaged socioeconomic backgrounds **rarely conduct an Internet search**. Moreover, when they do, this search is rather quick and not in-depth. The most effective way to transmit information to this public is therefore to work with intermediaries, according to participants

FORMS USED BY FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

According to some of the participants, the government's materials were not always relevant to deliver to target audiences. **Adaptations had to be made**. It was said that it is sometimes **easier to produce materials when you know your target audience well**. The material can then be tailored to their specific realities. There have been some discussions at the level of municipalities, about sharing or not materials between municipalities. The result of this discussion was that specific local adaptations are usually preferred.

It was mentioned that **some communities felt stigmatised by certain materials**. For example, a pictogram showing a dark-skinned person standing 1.5 meters away from a white person was presented as potentially offensive, because possibly giving the impression that foreign people would transmit the virus. While some participants thought that **"neutral" visuals** with which everyone could identify are preferable, others stated that it is positive to have diversity represented in images. It was also said that images with too many details tend to distract from the main message.

It was finally emphasised that **the materials in paper version are interesting** for these audiences. They can be given to certain intermediaries and circulated within the communities.

It was also mentioned that **when materials are written in Easy Language**, it is **easier to translate them**. Some intermediaries may need to translate these materials directly to the target audience.

BARRIERS EXPERIENCED BY FOREIGN-LANGUAGE LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

According to roundtable discussion participants, their target audiences faced many barriers to accessing communication about COVID-19, including communication from the federal government.

The material produced by the federal government was said to be often unclear to populations with low literacy levels, especially when they have little or no command of the French language. In addition, this material is not always adapted to the living realities and environments of this target group. To make this material clearer and more relevant, many adaptations are needed. Yet, the organisations stated to lack the necessary resources to adapt these materials according to all perceived needs.

According to the participants, it is not enough to produce or translate materials to make them accessible to foreign-language speakers from low socioeconomic backgrounds. **The materials must be accompanied by a more personal communication**. This allows the information to be well understood and appropriated by this audience. It is particularly interesting to work with intermediaries (for example, intercultural mediators) to "translate" the information and transpose it into the codes and realities of communities. Indeed, one participant mention that each community has its own codes and its own "internal discourse". The challenge is therefore to be able to engage in a real and sincere dialogue with this public.

Information from government has sometimes been **perceived as infantilising or injunctive** by these groups, which has had counterproductive effects, **generating some resistance**. More generally, there is a real **distrust of government** among this group. Individuals often reject government information and rely on people closer to them, whom they trust. This mistrust would have been accentuated by the fact that the government contradicted itself in certain information given. These contradictions would also have caused trouble for certain associations that relayed the information. According the participants in the roundtable discussion, once trust is broken, it is very difficult to re-establish it with these groups. It was suggested that the government should pay particular attention to the risk of giving contradictory information and should communicate better about scientific uncertainty.

Furthermore, the digital divide is a reality for the most disadvantaged populations. However, the federal government's communication about COVID-19 was mainly done through digital channels. More generally, the organisations present at the roundtable discussion felt that **the channels through which information was transmitted were not diversified enough**.

Finally, a lack of collaboration between the government and the actors on the field was noted. It was felt that the government did not approach the organisations enough. It was said by one participant that the government has "gone on its own".

GENERAL CONSIDERATIONS FOR COMMUNICATING WITH FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

It was first advised to create **a network of actors working directly with these target audiences**. More specifically, within this network, it was said that the federal government could produce materials and share it with the others actors who could, in turn, disseminate it using the most effective channels and adapting them, if necessary, to the very specific needs of their audiences.

Then, it was recommended to **call upon community intermediaries**, including intercultural mediators, to transpose the information into the codes specific to the communities and **facilitate a sincere and open dialogue**.

More generally, according to many participants, **personal communication is very effective and should become a priority**. It is particularly interesting to work with health care professionals and other community stakeholders who are trusted by foreign-language speakers. In this process, **encouraging the creation of spaces where professionals and target audiences can dialogue is a good practice**. It was emphasised that it is necessary to keep in mind that the goal of these sessions should not be to convince but rather to provide a range of information that will enable people to make informed choices.

In addition, it was stressed that **meeting the target audiences in their own environments** (schools, churches, other community spaces) is necessary. In fact, as already mentioned, the target audience may not always proactively seek information. They may have other priorities and concerns. The information must therefore reach them. In a pandemic context, this work must be done in small groups, to respect social distance. It is therefore necessary to provide the necessary human resources, as stated by one participant.

Moreover, it was said that **reliable and accessible information should reach target groups more quickly and efficiently than fake news**. Indeed, when information is inaccessible, individuals and groups will tend to turn to simpler explanations, as in fake news. However, when fake news reaches and penetrates certain communities, the work of deconstructing this misinformation is long and difficult.

More generally, invest, in times of crisis but also outside of crisis, in **strengthening the level of health literacy of target groups**. For some participants, this means strengthening the development of critical awareness while offering spaces for debate.

Finally, it was emphasised that **more synergies and collaborations** should be settled between field actors, professionals, associations, researchers and the different levels of government.

4.3.2 PRODUCTS

After expressing themselves on more general barriers regarding accessibility and use of the channels and form of information about COVID-19, the roundtable discussion participants were asked to react on some more specific types of materials. As developed in the methods section, the materials presented to the participants were divided into two categories. The first type of material was linked to crisis information, defined as information that must be disseminated

within 24 hours. The second was linked to durable information, defined as information that is repeated, developed and applied over a long period of time

We present hereafter the specific findings by type of communication (crisis or durable) for each roundtable discussion are presented. As explained in the introduction, it should be noted that not all materials were presented to all groups. Thus, for each type of material, not all groups are represented. A summary of the overall product findings is presented at the end of this chapter in Section 4.4 on “Conclusions and recommendations”.

4.3.2.1 URGENT COMMUNICATION ON NEW MEASURES

We present in this subsection the comments received by the target group intermediaries on material that we classified as crisis communication material. As a reminder, by crisis communication we mean a communication that must be delivered very quickly after an event, usually within 24 hours.

A. PRESS CONFERENCES

Two videos were shown at the roundtable discussion with the intermediaries of people with hearing impairment: the first video was an extract from a press conference interpreted in sign language and the second was a summarised explanation in sign language of the information delivered at a press conference (Figure 107). Hereafter are the feedbacks gathered.

Roundtable discussion participants first **emphasised the added value of interpreting press conferences**. According to them, this is the first time, to their knowledge, that so many means are deployed by the government to ensure access to information by deaf people. Several participants expressed their gratitude for the positive efforts made by the federal government. It was noted that the interpretation was done by deaf people themselves, which was seen as very positive. Indeed, according to several informants, **interpretation by deaf people is better – both in terms of clarity and accuracy** –, specifically when the information is complex.

It was regretted that the ratio between the interpreter and the rest of the screen was slightly too small. It was advised to follow the recommendations of the Conseil Supérieur d'Audiovisuel (CSA). According to these recommendations, the interpreter should occupy one third of the screen. It was also mentioned that at the beginning of the broadcasts, on some TV channels, banners or the logo of the TV channel were placed on the interpreter. It was advised to raise awareness among the television channels so that they would respect the recommendations of the CSA. It was also recalled that the public television channels have a contractual obligation to interpret the information given in emergency situations.

It was then said by some participants that the information delivered during press conferences is sometimes too technical and complex for people with hearing impairment. The second video therefore seemed accessible to a wider audience among people with hearing impairment. The shortness of the video was appreciated. The inclusion of some key words was positively received by the participants. Several participants mentioned that it would be interesting to add pictograms to this second video to support the interpretation. A representative from one of the organisations that produced the video was present at the roundtable discussion. He agreed with the other participants about the added value of pictograms. However, he said that producing and adding images to videos can be time and work consuming. He added that it would be interesting to have access to a bank of ready-to-use images, already tested and validated by the final audiences. Several participants added that some organisations, such as Pharos and Inclusion ASBL, are specialised in the production of pictograms and that it would be interesting if the government could work with them.

B. IMAGE SHEET ON REGULATIONS

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH PEOPLE WITH HEARING IMPAIRMENT

An image sheet (a document with photos and short texts) (Figure 108) was proposed to the participants of the roundtable discussion of intermediaries of people with hearing impairment. Their reactions are described below.

Their reactions were unanimous. The pictures in this sheet are not clear enough. They are not comprehensible without the accompanying text. This makes it difficult for people with hearing impairment to access the information. Specifically, it was said that the images are too small overall. Participants also mentioned that some of the images are confusing, such as the image of two people hugging each other. It was also felt that crossing them out does creates confusion

It was recommended that image sheets be made with simpler and clearer images, and that their authors take a certain distance ask themselves whether the images explicit enough without the text, and whether the images lead to misunderstandings. In addition, the participants insisted that all materials be tested by end-users before dissemination.

For people with hearing impairment with sign language skills, several participants said that images presenting drawn signs would be a relevant alternative to pictures.

This material was presented only to intermediaries working with people with hearing impairment.

C. TEXT ON REGULATIONS AND MEASURES AGAINST COVID-19

A material containing text in Easy Language (Figures 105 and 106) was presented at some roundtable discussions: an accessible screen-reading version was presented to intermediaries working with people with visual impairment and a translated version was presented to intermediaries working with foreign-language speakers from low socioeconomic backgrounds. Hereafter are the feedbacks gathered during the roundtable discussions.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH PEOPLE WITH VISUAL IMPAIRMENT

The screen-reading accessible text was sent to the participants in order for them to evaluate the relevance and accessibility of this form of material.

A visually impaired person representing one of the organisations conveyed to have been reluctant to read the message at first, fearing that it might be difficult to through all the colour codes used by the federal government to communicate about the travels around the world. Indeed, he was expecting the document to be a map with colours, which would make it very difficult for people with visual impairment to understand. In the end, as he prepared for the roundtable discussion with the material he had received in advance, he said he realised that it was actually very well explained. Eventually, this text is adapted to screen-reading programs, making it accessible for people with visual impairment.

However, as all of the text information is accessible through other channels as well, the necessity to re-distribute it through other means was questioned. For communication forms that are more difficult to access for people with visual impairment, translating them was considered insufficient.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

A material containing translated a translated version of the text was presented to the participants.

One participant said that the **text seems clear and concise**. He added that the material "looks serious". Nevertheless, according to several respondents, **the accessibility and effectiveness of this type of material depends on what channel** it is disseminated through. On social networks, people are more attracted to images and videos. Such extensive written information should therefore be more usefully displayed in certain places visited by the target audiences, or personally sent by email.

D. AUDIO MESSAGES

Four audio files of 1:50 each were played out during the roundtable discussions with the intermediaries of people with visual impairment, French speakers from disadvantage backgrounds and foreign-language speakers from disadvantage backgrounds. The aim was to hear them about their preferences between:

- A formal language text spoken out with a natural voice;
- A formal language text spoken out with a synthetic voice;
- A casual language text spoken out with a natural voice;
- A casual language text spoken out with a synthetic voice.

Below is their feedback.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH PEOPLE WITH VISUAL IMPAIRMENT

According to the participants in the roundtable discussion the text is declaimed very quickly, in addition to containing hurried words, making the usefulness of the material to people with visual impairment questionable.

The natural voice is in principle preferred but need to be developed correctly, as such, it should be slower, it should pause in between sentences, etc. However, the value of this type of product was questioned, as was the intention of the authors behind it. Had a specific need been identified? **As people with visual impairment have the same access to vocal information through the media as all other people**, small adaptations to existing materials might be sufficient, rather than creating new materials? **The participants in the roundtable discussion were more in favour of small adaptations to materials meant for the whole population, including the people with visual impairment, original and specific creations.**

Multiplying communications by type of disability may not be the right way to reach the maximum number of people in the population. Instead, a website with well accessible and inclusive communication materials might be enough, text-to-speech software may be used by people with visual impairment to read the information presented on a well-structured word document.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH FRENCH-SPEAKING PEOPLE FROM DISADVANTAGE BACKGROUNDS AND PEOPLE WITH A LOW LITERACY LEVEL

The participants to this roundtable discussion, conveyed that a large part of the population from low socioeconomic backgrounds tends to reject the messages issued by the government, making it useful to use sources other than governmental channels, for example the Facebook page or website of the organisations or municipalities. In the file that was presented and listened to during the roundtable discussion, in addition to the word « government », the word « police » is said, which would potentially create even more distrust among the targeted audiences. Moreover, the word “police” is spoken louder than the rest of the text, which can give people the impression that they are being watched, thus creating a risk of panic which leads them to not listen to the message further.

More generally, the vocabulary was perceived as not adapted to people who are used to casual language rather than formal language. This was said to be problematic because people who do not understand a message would not dig for other information to understand said it better, but consider that they are not concerned instead. When producing new communication materials that is intended to be inclusive and accessible to all, attention should thus be paid to the fact that people use and understand casual language more than formal language. Moreover, the messages should not be too long and repetitive, as there is a risk of losing the interest of the person who listens to the message.

Regarding the material presented, the participants in the roundtable discussion also reported that they could hear that **the person speaking in a natural voice was not a native French speaker**, which discredited the message according to them. Moreover, the person was **speaking very fast**, making it difficult to follow the speech. The synthetic voice was also commented as really unpleasant to listen to; it was said to be “jerky”, giving the impression that a robot was speaking. **The use of a synthetic voice was not supported by the participants.** Except for people with visual impairment who are used to this when they use screen-reading software, this type of voice was thought to create a barrier.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH FOREIGN-SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

There was **no consensus regarding the usefulness of the presented audio files** among the participants. Some were unsure about the accessibility of the audio files to their target audiences. Therefore, they gave rather personal opinions that contradicted each other. Overall, participants were **not convinced by any of the audio clips**. They felt that the audio clips were long and monotonous. One participant conveyed that it would be unlikely that foreign-language speakers from socioeconomic backgrounds would listen to these files until the end because the voices might stress, irritate or displease them. By contrast, another participant said that although the voices were not pleasant, the information was clear and understandable and therefore accessible to the target audience. The natural voice was commented as being more pleasant, although the synthetic voice sounded clearer and surprisingly “more human than the natural voice itself”, because it contained more intonations. The differences between the more casual (spoken) and formal (written) languages did not raise comments.

Finally, it was said that form is difficult to separate from the channel. Indeed, **this type of material seemed relevant to them if broadcasted via loudspeakers**, carried for example by some small trucks that would circulate in disadvantaged neighbourhoods. **Audio files did not seem relevant if broadcast via websites or social networks** where visual contents, such as pictograms or videos, are more viewed.

4.3.2.2 DURABLE COMMUNICATION

We present in this subsection the comments received by the target group intermediaries on material that we classified as durable communication material. As a reminder, by durable communication we mean a communication that is repeated over a long period of time

A. PICTOGRAMS

Different types of pictograms were presented to the participants of all roundtable discussions (Figures 109, 110, 111 and 112). For the people with visual impairment, a version with an audio description was shown. Below we describe the feedback from each of the roundtable discussions.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES OF PEOPLE WITH VISUAL IMPAIRMENT

The participants mentioned that it is important to clearly see what **the purpose of the pictograms is as well as the purpose of audio description**. If it is to send a message about what to do to limit the spread of the virus, it is not necessarily useful because people with visual impairment have already received a lot of non-visual information about what to do. The value of these pictograms is initially to remind people in public spaces, what the rules are. People with visual impairment know that there are pictograms available, and they have been audio-described, but they do not know what they represent, nor how to apply their contents within their physical environments. The usefulness of pictograms, even if they are audio-transcribed was therefore questioned by the participants.

Independently of their usefulness, a **problem of contrast was acknowledged**, as the presented pictograms would not meet the European standards making them difficult to access by the general population as well.

Concerning the fact that they are defined as audio-described, the participants were very critical, considering that **what they heard was not audio description, but rather reading of subtitles...** As for the pictograms, the relevance **and usefulness of audio descriptions was also questioned**.

If the **content of pictograms** is to be made accessible to blind and visually impaired in public spaces, other strategies than pictograms, including audio-described pictograms are to be thought of, such as a notification through a smartphone application when a person comes across a pictogram in the public space, if the aim is indeed to make information accessible to people with visual impairment at all times and in all places.

The participants generally suggested that pictograms that pictograms might not be particularly useful to the people with visual impairment if they are correctly informed by other forms of communication.

In theory, **pictograms are a means of communication which is in crisis** situations to inform about something. Yet, if pictograms are audio described for people with visual impairment, they will only be accessed through internet searches, which does not meet their aim to be “seen” in physical spaces as reminders of prevalent rules. The relevance and usefulness of adapting pictograms for people with visual impairment was therefore questioned.

With regard to the content, one of the pictograms was commented at length, as the distance of 1m50 which is constantly recalled in the barrier gestures is particularly challenging: if it is already difficult for a sighted person to visualise what it represents, it is impossible for a person with a visual disability to realise the distance they have in relation to another person. The same applies to guide dogs.

Coming back to **the voice that reads the captions associated with the images, it was said to speak much too fast**: everything is read in succession without a pause between sentences and it is easy to imagine that an elderly person who is visually impaired and maybe lacks technical skills will not understand the message behind it. If the **reading of captions or audio description is too fast, it might be counterproductive** and confuse the mind of the person who hears it instead of communicating an important message.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH PEOPLE WITH HEARING IMPAIRMENT

In one of the first reactions, a participant specified that whereas hearing people are in a logic where they will first read the text and then look at the image, **a deaf person would look first at the image and then at the text**. The pictures used need therefore to be sufficiently self-explicit, e.g. comprehensible without the text.

Most participants stated that some of the **pictograms presented were not clear enough**. For example, the pictograms on the golden rules (Figure 109) was said to contain several unclear or even confusing images. Specifically, the pictograms "limit yourself to 1 close contact", "think about vulnerable people", "work at home", "ventilate indoor spaces" and "prefer outdoor activities" were said to be unclear. The pictograms in this material were also considered to be too small.

It was then mentioned that the image "put the mask on your chin. Tie the ribbons underneath" (Figure 7) contained too much information. It was suggested that the information in this image be broken down into several images instead. It was also recommended to add arrows on this image to make it more explicit.

The "1.50 meter distance" image was considered clear (Figure 110). The red colour of the arrows, according to one participant, makes it easier to understand the information.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WORKING WITH FRENCH-SPEAKING PEOPLE FROM DISADVANTAGED BACKGROUNDS AND/OR A WITH A LOW LITERACY LEVEL

When they make productions, organisations really try to have a very inclusive lens, so they put a lot of images, but when they were presented with the pictograms selected for the project, they wondered if these had been tested before being distributed to the public.

They commented the pictograms as not being adapted to everyone because **their meaning is not always obvious**. The pictograms were said to be not **self-explicit enough**, which is unfortunate when the public that is targeted does not necessarily have access to the captions that accompany the images. Nevertheless, they allow communication with a fairly large proportion of the population because of the **neutrality of the drawings** (Figure 109). Indeed, the details tend to drag attention to the character and the way one is portrayed rather than to the message that is to be conveyed and valued. On the other hand, the **colours and contrasts were criticised as not complying with agreed communication standards**.

Finally, there are a lot of different pictograms and there is a huge production of new graphic materials, so they lose their effectiveness. Multiplying the sources without harmonising them is also creating a sound and visual infodemic, and people do not pay attention to the transmitted messages anymore.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WHO WORK WITH FOREIGN-SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

First, the golden rules infographic material (Figure 109) was said to contain **too many pictograms** or, more generally, **too much information**. The pictograms are **particularly small**, and therefore less accessible than larger ones. This material requires a lot of concentration to understand the information, according to one participant. In addition, the pictograms presented in this material are **not always clear enough**. Specifically, the pictogram showing two people embracing is not clear. In order for the information to reach as many people as possible, they should be more explicit.

There was a discussion between **the participants as to whether pictograms should remain the same or change over time**. Different views were expressed to that regard. Some thought that when the same pictograms are used over a long period of time, they become more familiar and therefore accessible to most citizens. Others participant emphasised that a certain lassitude can set in: "with time, we don't even look at them anymore", suggesting varying the pictograms from time to time, with creativity. For example, one participant explained that an artist had designed "pokemon" pictograms to explain barrier gestures to youth, and attract their attention better.

Moreover, one organisation reported having received feedbacks from its target audience regarding a more detailed pictogram (Figure 112). In this image, a dark-skinned person is standing 1m50 away from a white person. This was very badly perceived by some communities who felt stigmatised and understood the message as « foreign people transmit the virus », which is completely contrary the purpose of this image. It was therefore suggested to create more neutral and self-explicit pictograms so that everyone can identify with them.

It was also emphasised that it is useful to keep in mind that **some associations or companies will print these pictograms in black and white**. Will they still be clear without colour? This is a question to be considered.

Finally, it was mentioned that it is difficult to distinguish the medium from its context of dissemination or the intention behind it. The relevance of a medium depends on the channel through which it is distributed: will it be posted, distributed on the street, explained by professionals? Furthermore, the images would need to adapt to evolving contexts. For example, any image showing a person with a mask is now clear to the population. But was this image as

clear and explicit at the beginning of the crisis? The accessibility of images therefore also depends on the context.

B. VIDEOS

A video on how to wear the mask was presented to the intermediaries of all the target groups, with specific adaptations for each group.

The basic, unadapted version (Figure 113), contained drawn images, some of which were animated, some text, a voice-over, and background music. Its length was 1:33 minutes.

For the blind and visually impaired, an audio-described version and an audio-introduced version were presented.

For people with hearing impairment, a sign-interpreted version (Figure 115) and a subtitled version (Figure 116) were provided.

A translated version in Albanian (Figure 114) was presented to the group representing foreign-language speakers.

The reactions of the participants are detailed hereafter.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WHO WORK WITH PEOPLE WITH VISUAL IMPAIRMENT

Three versions of a video on the use of facemasks was presented during the roundtable discussion:

- One standard video without any accessibility adaptations
- One with audio description
- One with audio introduction

The reactions of the organisations present are detailed hereafter.

The adaptations were thought to be good attempts to make the video about facemasks accessible, but doing an **audio introduction makes the video much longer and then the subject gets a bit lost in the process**. It is also possible to make an audio description but not everything must be described. To be as relevant as possible, a mix between audio introduction and audio description would be the best option, so that the adaptations do not get in the way of the content, which is the most important part. Therefore, it is good to want to structure the content as it is done in the video with audio introduction, but people also need to be able to capture the relevant information. With these materials, attempts are made to describe the visual information, but the participants got the impression that the information is pre-digested for the people with visual impairment, although they are quite capable of targeting the important information themselves. **The content was thought to be clear enough, without a need to be re-explained**. If this video was made only for people with visual impairment, it was suggested to add an audio description that would be more accurate and more adequate, so as to divert attention from the content. **The organisations said that at first sight, the audio description spoils the message**.

In addition, whether it is for the initial video or for those with adaptations, there were a few points of attention: it is necessary to **make sure that the background is well contrasted with the text**, which is not the case with these materials; **the background music is too loud** and at times overpowers the audio description, at the risk of polluting the reading. Again, the question is when to describe and when not to describe, when it is really relevant. According to the participants, this should only be done when the image brings additional information to what is already said (for example, images where there is also text). Moreover, **some of jargon words used by the person**

speaking in the video are not accessible enough, for example « *salle d'op'* ». It is important to ensure that the text is understandable and complete for everyone. Furthermore, in these videos, the messages have just been translated but that is all, **there is nothing to make the information in the message more relevant or even applicable in practice.**

Indeed, as already mentioned, the participants insisted that it is not enough to make the messages theoretically accessible, but that their applicability in the people's everyday lives and environments be also considered when adapting or producing communication materials. If the messages communicated to them are adapted to their sensory barriers but not to the reality of their lives, this makes the message inaccessible despite the fact that it may be understood. **In translating generalist messages that target everyone in relation to the pandemic, those who produce the messages actually miss the point of this communication, which is to inform people and provide them with solutions through a message that is practical for them in the context of their daily management of the virus.** The participants deplored that the media are usually mostly treated in a technical way with not enough consideration for the real needs, in terms of contents and applicability, for some audiences.

Finally, when asked which communication channels should be prioritised, the participants acknowledged that many are already used. They mentioned that in addition to existing channels there are a number of entrusted intermediaries among the field actors and social services, who tend to not be involved enough, as general broadcasted and web posted communication campaigns have been favoured so far, when direct communication, tailored to the specific needs of the communities are known to be effective.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WHO WORK WITH PEOPLE WITH HEARING IMPAIRMENT

Three videos were presented to people with hearing impairment:

- The original video with no adaptations (Figure 113)
- One with sign language interpretation (Figure 115)
- One with subtitles (Figure 116)

The video most appreciated by the participants was the one containing interpretation. It was appreciated that the original video already contained some text and images.

The **pace of this video, not too fast**, was viewed positively. It was said that the **interpretation was synchronised with the images** which facilitates understanding. The clarity of the images was also appreciated. To be even clearer, it **was advised that the transition between two "topics" be more clearly marked**. Some participants said that the text could be removed while others said that it would be very important for it to stay so that the video is also accessible to people with hearing impairment who do not have sign language skills.

The video with subtitles was considered confusing by one participant because the subtitles repeated text already contained in that video. Another participant mentioned that when there is a voice-over, it is interesting to have subtitles to access the whole content in text.

The need for more contrast was repeated again in this group, as some people with hearing impairment, might also face visual barriers in addition, especially in an aging population.

FINDINGS SPECIFIC TO FRENCH-SPEAKING PEOPLE FROM DISADVANTAGE BACKGROUNDS AND PEOPLE WITH A LOW LITERACY LEVEL

The original video, with no adaptations (Figure 113), was presented during the roundtable discussion.

To begin with, from a technical point of view, **the proportion of text is too high** for people who have difficulty understanding health-related information. **The colours of the video are distracting** and the **music is too loud** in relation to the speaker's voice. Also, the music was found oppressive and likely to distract from the message. *"It is not an efficient way of doing things, the colours, the sound and the **animations attract much more attention than the text**".* Another participant said: *"Moreover, **the text is far too detailed and complicated** for a message which is simply to wear a facemask when the distance of 1m50 with other people cannot be respected".*

The budget needed to produce such videos were also discussed, implying that in order to not waste it, relevant intermediaries as well as end-users (experts by experience) should really be consulted when developing such products, to make sure they are clear and adapted for everyone, and the money does not get wasted.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WHO WORK WITH FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

The original French version of the video (Figure 113) was presented to this group as well as a translated version in Albanian (Figure 114).

One participant mentioned that **the information is explained simply** but that these videos **should be tested** with the audience to assess their level of understanding. The video seemed inclusive, according to the participant. It was said that there **is diversity in the choice of images, which was seen positively**. Other participants felt that the videos were **a bit too long and contained too much information**. It was recommended to reduce the number of ideas/information charge per slide.

A general message, repeated in several groups, was that the author/sender of the message should be clearly identified for people to be able to decide whether they can trust the message, which was not the case in the presented videos. It was also advised to add links to access further resources if useful.

Moreover, the contrast of the videos would also need to be checked, and the voice-over was said to be monotonous.

C. INFOGRAPHIC ON VACCINATION

An infographic on vaccination was presented to the intermediaries of all the different groups (Figure 117). This PDF was accessible on screen-reading software for the people with visual impairment. Below we describe the feedback from each of the roundtable discussions.

FINDINGS FROM THE ROUNDTABLE DISCUSSION WITH INTERMEDIARIES WHO WORK WITH PEOPLE WITH VISUAL IMPAIRMENT

All the participants agreed that the PDF format is not the preferred format for screen-reading assistance software. If the information is meant to be accessed via the internet, **a standard html format is very effective as long as the text is well structured**, giving the user the ability to move

from title to title, etc. Furthermore, if a PDF document is accessible, normally a word version exists, which should be made accessible too. PDF formats do pose problems because as soon as there is a little bit of graphics, it is very difficult to be able to read these documents correctly. Making a word document which respects the announced order and numbering of the titles makes the structure and reading easier for text-to-speech software. Graphic and web designers are not always trained in terms of accessibility of digital documents and therefore do not necessarily meet European standards, which undermines the accessibility of the written textual contents for people with visual impairment.

In addition, it was recalled that beyond digital aspect, some « **paper** » **alternatives exist**, for example, in **Braille language**. Adapting some tools in Braille was presented as a real added value for people who are less trained in digital or who do not have access to it. An important part of the older population still used Braille.

In the end, as for the materials presented above (pictograms and videos), the participants questioned how all these adapted or specifically created materials are produced; How it is ensured that the intended end-users are aware that such communication alternatives exist? For example, prior to participating in this roundtable discussion, the majority of the participants were not aware of such adaptations, and would therefore not have been able to communicate them to their publics. Once again, the need to ensure correct dissemination, especially in crisis situations, was emphasised. The use of well identified communication points was mentioned, in order to respond quickly and correctly. It was also stressed that not all people are part of associations because a fear of being stigmatised. These people were said to event more at risk of not receiving timely and adequate information. Therefore, the question of how to make this communication accessible to all should be asked at every step of the tools' creation process.

FINDINGS SPECIFIC TO PEOPLE WITH HEARING IMPAIRMENT

The participants made comments that match some of the comments about the image sheet and the pictograms. It was said that the pictures are not clearly visible because they are crossed out, that the visuals are too small and that images are not clear enough without the text. Furthermore, it was recommended to create and add icons with some of the signs for the deaf audience specifically or to include instead images with a clearer visual logic. It was also recommended to enlarge images.

FINDINGS SPECIFIC TO FRENCH-SPEAKING PEOPLE FROM DISADVANTAGE BACKGROUNDS AND PEOPLE WITH A LOW LITERACY LEVEL

According to the participants, the brochure contains **too much text**. Moreover, they found that the **pixilation was bad** and therefore the enlargement of the document does not allow to read it correctly. The crosses over some images are disturbing because they distract from the meaning of the information and it is difficult to understand what the message really is about. Moreover, the **images were criticised**, as not being explicit enough, especially those concerning the timing between the two vaccines: the same image is presented several times but is not related to the same meaning. In addition, the reading of this document is made complicated because of different reading directions: on one page, it is from left to right and on another, from top to bottom. In order to be more accessible, the documents should have a certain consistency in their structure.

Regarding the **information contained in this leaflet, this was said to not be entirely accurate**, or sufficiently evidence-based, when it comes to saying that one does no longer contract the virus once vaccinated, or that one can no longer transmit it. The participants emphasised that they would have preferred to read instead that there is a chance to be less sick and therefore to avoid saturation of the hospitals, so that the others are also a little protected... It was said that the lack of accuracy in the messages may have the opposite effect than the one expected, leading some hesitant people to feel cheated and decide to not adhere to the principle of vaccination.

In addition, the participants questioned the relevance of the text as such: it was said to give **too much information that is not useful but no information regarding recent new discoveries** such as variants, etc. These documents should therefore **be readapted regularly according to new data, and be dated so that people may know when they access them if they are still up-to-date**.

Finally, if this type of material is made available to the public, people who prefer to have a telephone contact to make sure they understand or to be able to ask other questions should also be thought of. Therefore, rather than just producing a brochure, **it should be mediated through a live personal contact**.

FINDINGS SPECIFIC TO FOREIGN-LANGUAGE SPEAKERS WITH LOW SOCIOECONOMIC BACKGROUND

According to many participants, the **visuals are not clear and understandable enough**, specifically for foreign-language speakers who will read little or no accompanying text. Specifically, the crossed-out images hinder understanding and can even be confusing. The images with the coronavirus design do not seem understandable to the vast majority of the population. The calendar image is probably not explicit enough to this audience either. One stakeholder said that, more broadly, the entire federal vaccination campaign is not easily understandable or accessible. Another participant added that it is, in fact, a particularly complex topic to explain.

One participant **discouraged moving from photos to pictograms**. It is better to stay with the same type of images, according to her.

It was also said that the **most important information should appear at the beginning and at the very end of the material** because that is what people remember. However, the information on maintaining barrier behaviours after vaccination appears too far down in the brochure.

It was added that if the brochure contains several pages, it might be useful to **include a small table of contents** to guide the reader.

It was said that, more broadly, this type of medium (a brochure) can be interesting for communicating with the public, but that its distribution needs to be accompanied by the presence in the field of someone who can provide for an oral explanation, answer questions, and engage in a discussion with the target audiences.

D. INFO-SHEETS PRESENTING THE VIRUS AND THE VACCINE

This info-sheet about the coronavirus and the vaccine was presented only to the intermediaries working with foreign-language speakers (Figure 118). A translated version was discussed. Below are the reactions obtained.

This form seems very interesting but **remains complex**, according to several participants. However, it seems difficult to simplify further. It was said that in some cases, it is better to keep some complexity rather than oversimplify. The topic of vaccines was said to be specifically complicated. In this brochure, further **simplification could lead to misinformation**. Simplification is not always the best solution. It can lead to mistrust. The most effective solution, according to stakeholders, is to use intermediaries to explain the material.

It was said that this **material has been very useful to health professionals**. It allowed them to answer some of the questions asked by their patients, such as "what is going to be inserted into my DNA? "Are they going to insert a microchip in me? ". This support has helped to raise the barriers to vaccination. More specifically, it is specified that this support was used by several medical centres. A dialogue was established between the health professional and the patient based on this brochure. One participant mentioned that his association had also used this material translated into English to communicate with certain foreign audiences.

Last, **the material was said to be pleasant to look at**: "the image is radiant, shimmering in colour and very attractive", she said.

4.4 RECOMMENDATIONS & CONCLUSION

In this final section, we first summarise the general results of this chapter. We then make some general recommendations and some more specific recommendations for certain types of materials.

4.4.1 GENERAL FINDINGS

4.4.1.1 GENERAL ACCESS TO THE FLOW OF INFORMATION ISSUED BY THE FEDERAL GOVERNMENT

A. THROUGH WHICH CHANNELS DO VULNERABLE PEOPLE GET INFORMATION /RECEIVE INFORMATION?

For **all the target groups** in this study - people with visual impairment, people with hearing impairment, French-speaking people from disadvantaged socioeconomic backgrounds, foreign-language speakers from disadvantaged socioeconomic backgrounds - it was said that they get information mainly through:

- Family members and friends;
- Peers;
- Larger networks, composed of **associations** working with the different target groups;
- **Intermediaries**, such as health professionals;
- Social networks.

According to the participants in the respective roundtable discussions, **people with visual impairment** would also get information through more **traditional media** such as television, radio or internet. When they use social networks, the channel they prefer is **WhatsApp groups**. For **people with hearing impairment**, social networks in general, and **Facebook** in particular, seem to be used a lot, except for those with low digital skills (digital divide). In addition, deaf people with sign language skills are informed by **press conferences**, although the information delivered is

sometimes complex to understand. **French speakers from low socioeconomic backgrounds and foreign-language speakers from low socioeconomic backgrounds** primarily obtain information from **people they know and trust**. In addition to this, **foreign-language speakers** obtain information from **television channels in their own language** or from some **community media**.

B. WHAT FORMS DO THEY USE/ARE MORE ACCESSIBLE TO VULNERABLE PEOPLE?

All target audiences prefer forms that are adapted to their needs. Specifically, people with visual impairment, turn to materials that contain **audio**. The participant in the roundtable discussion said that people from this target group appreciate **audio description or audio introduction** that makes certain materials more accessible. They use **screen readers** to understand some materials. Those without access to digital technologies prefer **Braille**.

Second, people with hearing impairment and have sign language skills prefer **sign language interpretation**. People with hearing impairment who do not have sign language skills will favour clear and **concise visual or textual content**. In addition, **self-explicit visual** content is particularly useful for all people in this audience. Materials that simultaneously use different forms, such as interpretation, visuals and written text, are particularly relevant.

Last, people from low socioeconomic backgrounds or with low health literacy tend to better understand materials that contain clear and short texts or visuals. Foreign-speakers more readily turn to materials in their own language.

C. WHAT HAS BEEN PUT IN PLACE BY ORGANISATIONS TO MAKE COMMUNICATION ABOUT COVID-19 MORE ACCESSIBLE TO THESE AUDIENCES?

Overall, materials have been created or adapted to make communication more accessible to certain audiences. **Hotlines** have been set up to facilitate personal communication. **Tabs** on web pages or **groups on social networks** have been created.

In addition, **for people with visual impairment, roundtable discussions** have been organised. **For people with hearing impairment, pages on social networks** have been set up to allow associations to disseminate information and the target audience to get in touch via chat or video-conference. **Videos in sign language summarising the information given during the press conferences** have been created. One participant commented on an **online interpretation service**, allowing a deaf or hearing impaired person to contact a hearing person via video conference, has been included on the federal government website to contact the coronavirus information service directly. This was the result of a collaboration between the government and an association. Intermediaries working with **foreign-language speakers** reported working with **intercultural mediators**, while those working with a **French-speaking audience** reported working with **local influencers**, and **created videos in collaboration with local television stations**.

D. WHAT BARRIERS DID THE TARGET AUDIENCES EXPERIENCE IN ACCESSING INFORMATION?

For all groups, it was said that it is difficult to navigate through excessive amounts of information. Secondly, it was mentioned that the information delivered by the government is often too complex and needs to be re-explained by some mediators/intermediaries to be fully understood. The digital divide was mentioned by all groups as a potential barrier to accessing information.

The closure of physical spaces contributed to making access to information complicated for these audiences. Finally, it was said that the channels through which federal government information was transmitted were not varied enough.

Intermediaries of people with hearing and/or visual impairment mentioned that in times of crisis, many visual materials are produced but they are mostly inaccessible to this audience. A lack of adapted, audio-described and/or audio-introduced materials was noted. A particular difficulty was mentioned regarding the distance of 1.50m, which is not easy to estimate and to respect for people with visual impairment. For this group in particular, the lack of information readily accessible within their environments was stressed as particularly distressing and disempowering. Indeed, the participants in the roundtable discussion stressed that whereas most of the information is theoretically accessible, it is in practice very hard, sometimes impossible, to put in practice in an environment that is changing as a consequence of applying the recommended measures: How to estimate the right distance in a queue? Where to find the hydroalcoholic solution at the entrance of a shop? How to identify the right direction when circulation flows are mandatory in a given environment? A crucial lack of information within the physical environment was stressed for this vulnerable group.

People with hearing impairment considered the **hours of availability of the online sign language interpretation service to be insufficient**, according to their intermediaries. In addition, it was mentioned that deaf foreigners are not proficient in national sign languages. People from **low socioeconomic backgrounds do not actively seek information** according to the participants in the roundtable, but receive it passively instead. Yet, **fake news are sometimes faster than official information**, and are very difficult to deconstruct, once they circulate in a community. In addition, this audience sometimes feels lost in the large flow of information, which increases their fear and isolation.

For foreign-language speakers, the material is rarely translated. Furthermore, it is rarely sufficient. Indeed, personal interaction and transposition of the information into certain cultural codes is necessary.

E. WHAT GENERAL COMMENTS WERE MADE BY INTERMEDIARIES OF THE TARGET AUDIENCES?

Many broader comments were made. Most of them apply to **all groups**. First, it was said that it would be interesting if the **federal government would produce more adapted materials**. In addition, any materials produced **should be tested** before being disseminated more widely. It was also mentioned that it would be interesting if all the **information was centralised**. More generally, it was recommended to **create more synergies and collaborations between all actors passing information** - directly or indirectly - to these target groups. Furthermore, it was stated that **it is not enough to convey messages about the measures**: it is also **necessary to explain to the target groups how these measures can be implemented in their living environments** and to support them in this process. Finally, it has been said that **these groups rarely do extensive research on the internet**. Therefore, information needs to be provided through other channels as well.

Specifically, for **people with hearing impairment**, it was said that it would be interesting to **multiply the channels of diffusion and the forms** of the messages to reach all the deaf or hearing impaired publics: signing and non-signing, having access to the internet or not, knowing how to read or not, etc. Regarding the latter issue, the participants in the roundtable discussion stressed

that a number of people with hearing impairment face writing and reading difficulties, that need to be taken into consideration when adapting communication products for their use.

For people from **low socioeconomic backgrounds**, both French and foreign-language speakers, **trust is fundamental for the adherence** to the messages. According to the participants, some political **decision-makers held contradictory speeches** or showed a gap between their life realities and those of these groups, **which increased mistrust and resistance**. The **injunctive tone** sometimes used in certain messages produced the same **counterproductive effects**.

4.4.1.2 PRODUCTS

A. CRISIS COMMUNICATION

Press conferences (Figure 107):

The participants in the roundtable discussion commented that:

- Belgian-French Sign Language (LSFB) interpretation by hearing impaired people themselves as opposed to interpreters who are not hearing impaired, contributes to increased accessibility.
- The interpreter should occupy one-third of the screen for better visibility.
- TV stations sometimes put their logo on the interpreter's image.
- Videos in LSFB summarising important information from the press conferences were greatly appreciated by people with hearing impairment.

Image sheet on regulations (Figure 5):

- The following comments were made:
- The images are not self-explicit enough and are too small in size.
- Images with signs and pictograms are more relevant than photos.

Text on regulations (Figure 1 and 2):

Regarding accessibility for the people with visual impairment, the following comments were made:

- The information about the measures is accessible by many means, so it is not necessarily relevant to produce other means of communication such as texts adapted to the screen reader software, since people with visual impairment already have the possibility to get information through other channels.

Regarding the relevance for foreign-language speaking people of low socioeconomic backgrounds, it was mentioned that

- The relevance of the material depends on the channel through which it is transmitted. It should be sent out through emails, newsletter or displayed on official websites. According to the participants, this material is not adapted for social networks because on these channels, people tend to pay more attention to texts if they are accompanied by images, which is not the case with this material.

Audio materials:

Here are the findings from the 3 roundtable discussions:

- While there was a tendency to prefer the natural voice among the intermediaries of the blind and hearing impaired, there was no consensus among the other groups

- The natural voice was not that of a French-speaking person and this was disturbing for some organisations.
- The audio files seemed comprehensible to the participants but not pleasant. The relevance of this type of material also depends on the channel through which it is disseminated. It was said, for example, that it might be interesting to broadcast it through loudspeakers. More generally, its usefulness was questioned by many participants because they do not think it is necessary to create these types of materials as the same messages are already transmitted in other forms such as videos for people who cannot see or understand text messages.
- The text was perceived as spoken out too fast and repeated many times, leading to a loss of interest from the listener
- The vocabulary was thought to be too complex.

B. DURABLE COMMUNICATION

Pictograms (Figures 109, 110, 111 and 112):

The comments made during the roundtable discussions with the intermediaries of the people with hearing impairment, the French-speaking people from low socioeconomic backgrounds and the foreign-speaking people from low socioeconomic backgrounds are as follows:

- Pictograms are not always clear and understandable without the text. Some are even confusing.
- The size of the pictograms is sometimes too small. It is more efficient to have large images.
- Some images contain too much information. It can be interesting to break them down into several images.
- For pictograms representing a person or an object in movement, arrows could be added to signify movement.

The participants in the roundtable discussion with intermediaries of people with visual impairment commented that:

- The contrast was not always sufficient
- the provided audio description was a reading of captions rather than a real audio description.

In the roundtable discussion concerning the foreign-language speakers, the comment made by the participants was that:

- Some pictograms were felt to be stigmatising. It was suggested that universal images be used instead of images highlighting diversity, so that everyone could identify.

PowToon-Videos Face mask (Figures 113, 114, 115, and 116):

General Findings:

- The background music distracts from the main message.
- Some of the terms used, such as "*salle d'op*", are not understandable by everyone. It is necessary to use a vocabulary known by all.

Specific findings regarding the relevance of the material for people with visual impairment:

- Audio description and audio introduction can improve the accessibility of videos for this target group. However, they should not be overloaded with information. Only important information should be given. It is also interesting to combine the two.

Specific findings regarding the relevance of for the material for people with hearing impairment:

- A combination of interpretation, images and clear text is ideal.
- It is interesting if the interpretation is synchronised with the images. For better understanding, the transition from one topic to another should be very clearly marked.

Specific findings regarding French speakers from low socioeconomic backgrounds:

- There is too much text in the videos presented
- Overall, there are too many elements in the video (images, colours, music) that distract from the main message

Findings specific regarding foreign-language speakers from low socioeconomic backgrounds:

- The diversity represented in the images is appreciated positively by some participants. On the other hand, others mentioned that some of the images presented are stigmatising to certain groups and that it would be better to adopt more neutral images.
- The source of the message is not apparent, which undermines the trustworthiness of the message and does not contribute to building confidence

Infographic on vaccination (Figure 117):

General findings:

- The images in this brochure were commented as not being clear enough, and not self-explicit. The text was needed to understand them.
- The images were seen as being too small.
- The combination of and switch from one type of image to another one (e.g. from pictograms to photos) is not recommended
- Some images are crossed out; this was perceived as making them unclear and confusing
- Pixilation was too poor

Specific findings regarding their usefulness for people with visual impairment:

- PDF is not a good format for screen reading assistance. Other formats are preferred such as word, when titles are respected.
- It would be interesting to also use Braille for this type of material. Not everyone has access to digital technology.

Specific findings regarding the people with hearing impairment:

- It was recommended that images be created with signs for the specific public of deaf people who master the sign language. This would make the message more accessible.

Findings specific to foreign-language speakers from low socioeconomic backgrounds:

- Again it was recommended that the source of the message be indicated, to help appreciate whether the message is trustworthy

Info-sheets about the coronavirus and the vaccine (Figure 118):

The participants in the roundtable discussion commented that: The material is interesting but complex. It should be distributed through health professionals or intermediaries who would provide direct explanations to complement the information and support its accessibility.

4.4.2 SUMMARY OF MAIN RECOMMENDATIONS

4.4.2.1 RECOMMENDATIONS THAT ARE INDEPENDENT OF THE TYPE OF PRODUCT:

- More **synergies and collaborations** should be settled between field actors, professionals, associations, researchers and the different levels of political governance in
- **Network of actors working directly with the target audiences should be created, and actors working in the field should be consulted.** People's individual life experiences and expertise in the face of difficulties must be taken into consideration in public policies.
- **Personal communication is very effective and should become a priority.** It is particularly interesting to work with health care professionals and other community stakeholders who are trusted by the target groups. Moreover, it is necessary to **identify influential and trusted individuals** who can convey the messages to them.
- **Reliable and accessible information should reach target groups faster and more efficiently than fake news.** Indeed, when information is inaccessible, individuals and groups will tend to turn to simpler explanations. The federal government needs to adapt its communication to the target groups in order to avoid creating mistrust.
- **Actions should also be taken in terms of training and support for the people who create these communication materials.** Experts in digital accessibility should be called upon to develop and disseminate the information communicated via the websites.
- Materials should be tested before being disseminated. More generally, involving the public in the creation and/or validation of materials is crucial to answer in an effective and adequate way to their needs.
- The documents should be readapted regularly according to new data, and be dated so that people may know when they access them if they are still up-to-date.
- It is important that the sender of the message be explicitly named in the materials. The source of the document should be written on the said document. The authors should be listed in order to make it possible to identify that the material is trustworthy.
- **It should be avoided to make the materials too specific.** The adaptations made might also interest people for whom they were initially not intended, extending their benefit to other groups of the population. Communication adaptations should therefore be seen as a whole and not just in relation to a specific group. The resources used for adapting or creating materials should be mutualised rather than everyone creating their own media and multiplying the sources of information.
- The channels and form of communication should be diversified.
- **Alternatives for people who do not have access to digital technology should be found.** The messages currently relayed by the federal government touch on vital issues such as health and everyone should be able to access them regardless of their socioeconomic status or disabilities.
- Adaptations should be made for people with visual impairment in the public spaces, for example, through a smartphone app.
- The lessons learned in terms of crisis communication in the COVID-19 context should **be applied in relation to other health-related topics** as well.
- On each material, it is interesting to **refer to resources that allow the public to obtain more information/go further**, such as telephone numbers or websites.
- When producing materials, it is important to **think about people who cumulate different vulnerability factors** (e.g. blind and deaf people, deaf people who speak a foreign language, etc.).
- The relevance of the materials depends on the channel through which they will be disseminated.

Other recommendations, specific to the materials that were presented and discussed, were also been made by the organisations who participated in the roundtable discussions, and are listed below.

4.4.2.2 RECOMMENDATIONS FOR SCREEN-READING ACCESSIBLE MATERIALS

To make text and visual materials adapted and inclusive for people with vision impairments, **digital and accessibility experts must be hired**. People who are not sufficiently trained in accessibility issues may miss the point when they make adaptations. **A use of structure in a text is very important** and it is therefore more useful to **create html or word format** documents instead of using the PDF format which is often problematic for screen-reading programs, especially when the document contains graphic contents.

The CAWaB produced a book of guidelines about what they call “Handistreaming”, or making communication accessible to everyone. This guide is available:

<https://cawab.be/Handistreaming-comment-adapter-votre-communication-a-tous-131.html>

4.4.2.3 RECOMMENDATIONS FOR VISUAL MATERIALS (PICTOGRAMS AND VIDEOS)

To ensure the accessibility of visual content, there are **programs, such as QuickScan and AnyReader, to be installed on computers that calculates both text and image contrasts** and it was advised to use it to review all documents produced for the federal communication, in order to ensure that they are accessible to people with visual impairment.

Furthermore, it would be interesting to **compare the official pictograms with those produced by specific associations** to see whether they are inclusive or not. It is important to be able to work with the organisations that produce adapted tools in order to propose the best possible tools and avoid increasing the flow of available information.

Before proposing pictograms to the whole population, it is necessary **to circulate the good practices developed by specialised organisations** and to see in each community what works for them or not. For example, it was mentioned several times that **images that are too detailed may distract from the main meaning of the message and sometimes create stigmatization**, especially when people of different ethnic origins are represented. It could therefore be more interesting to **create more neutral and self-explanatory pictograms** so that everyone can identify with them. More generally, it was recommended to create large images, not to cross them out and not to switch from one style to another (e.g. pictograms to photos) in the same document. In addition, it has been recalled many times that the images need to be self-explicit.

Concerning video adaptations, it was recommended to always work with professionals, as **audio description** requires very specific skills: it is necessary to speak slowly, to speak distinctly, to articulate, etc. It was advised to make **use of already existing resources that already** by making these adaptations with people who are really trained in the technique of audio description or audio introduction and who have a long experience in the matter, for the sake of not wasting scarce resources and to ensure a real benefit in terms of accessibility for the targeted people.

At last, according to the participants in the roundtable discussion, it would be interesting to ask a few people who can see perfectly how they managed with all the communication related to COVID-19. By doing this, it would be possible to raise awareness that **the needs of a visually impaired person for structured information would also meet those of a person who can see**. Thus, it was advised to not multiply the tools in relation to the specificities but to adapt the same

material so that it can meet the needs of each specificity. Only then would it be really possible to talk about inclusion, which is not the case at the moment with the plethora of tools developed by associations but also by governments. The participants insisted that the **spoken news should be audio-described, translated into sign language and easy to understand**. Therefore, a **single newscast that contains all these information and adaptations**. It is towards this type of adaptation that we should move.

4.4.2.4 RECOMMENDATIONS FOR AUDIO MATERIALS

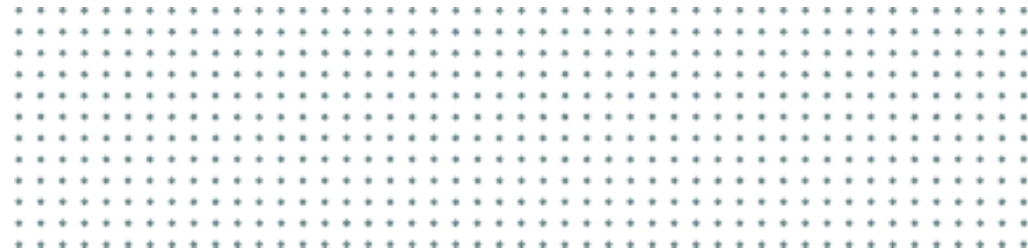
To make these audios more inclusive, it was advised to use **more fluid and very cosmopolitan voices** like those heard on the radio. **Messages should be straight to the point**. In addition, the federal government needs to aim for "one message, one target" because currently, people for specific groups are seen as blocks in the population when there are many different people within the same category.

Moreover, there is **a difference between spoken and written language**, thus in order to share simple messages, they must be reworked so that they are understandable. It is essential to make **speeches that are adapted to vulnerable groups** and that are simple rather than repeating them more slowly

4.4.2.5 RECOMMENDATIONS FOR AUDIOVISUAL MATERIALS

It was said that the pace of the videos should not be too fast, and that that the images, text and/or interpretation be synchronised. The transition between two topics should be clearly marked for better understanding.

Too much colour, background music and/or detailed images are not recommended as such features may distract the viewers' attention from the main message. It was also said that it is interesting when videos contain both images, some text and interpretation. This allows to reach a wider audience. Last, it was advised to keep the videos as short as possible.



PART 5

QUALITATIVE EVIDENCE: END-USERS

1 FOCUS GROUP DISCUSSIONS: EVALUATING STRATEGIES WITH END-USERS IN FLANDERS

1.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Flanders by **Thomas More** in which focus group discussions were conducted with end-users of target groups to evaluate the COVID-19 communication strategy by the federal government and the accessibility of specific communication products. The communication materials used during the focus group discussions, were developed as part of the experimental product development phase of this project. See PART 2 for more details on this phase and see below for more information on the developed products for discussion in the focus group discussions.

This chapter is based on the content of the following project deliverable report:

Talboom, S. & van de Veerdonk, W. *Internal report on insights of focus group discussions with vulnerable population. Report on Work Package 3.* 15 November 2021.

1.2 METHODOLOGY

During August and September 2021 six focus group discussions (FGDs) were organised. On average, this number is considered the minimum necessary to identify more than 80% of all discoverable themes (Guest et al., 2016). Three FGDs took place at Atlas, Integratie & Inburgering Antwerpen (Atlas) and three at Ligo, Centra voor Basiseducatie Antwerpen (Ligo). The FGDs were held during courses that took place in the context of an integration programme (Atlas) or the training of low-literate adults (Ligo). The FGDs were scheduled at the beginning of the school year, so that not all participants were acquainted with each other. This was particularly favourable to prevent a group effect bias and let participants speak more freely.⁵⁰

1.2.1 RECRUITMENT

Atlas recruited participants for the FGDs in their own organisation through their existing classes and via their network by involving Ligo. By having the conversations take place at a location that is already known to the participants, a more informal, relaxed research setting is created. Since we work with a hard-to-reach target group, the only inclusion criteria were a) not speaking Dutch (Atlas) and b) speaking Dutch (different levels) but experiencing other socioeconomic vulnerabilities such as a lack of education, poverty... (Ligo). The goal was to recruit around eight people per FGDs. To counter drop-out, 12 participants per FGD were invited.⁵¹

⁵⁰ A group bias effect can occur during face-to-face FGDs. To uphold consensus, participants agree with each other's opinions instead of providing their own truthful responses. This often leads to exaggerated responses and results that do not accurately reflect the true opinions of all participants.

⁵¹ Normally a 25% margin of over-recruitment is advised. We have increased this margin to 50% because our target group is not only hard to reach but also tends to drop-out more easily.

1.2.2 TARGET GROUP

On average, all FGDs comprised of eight participants, accompanied by a translator or a teacher (Interpreted-Assisted Focus group discussion, Moderated by Researcher). Participants at Atlas were divided by a teacher over three FGDs and consisted of migrants from countries where Arabic is spoken (previously defined as vulnerable foreign-language speakers). The choice to test the products only with an Arabic speaking group was purely pragmatic to uphold the strict planning of the project. The first three groups were the first available for testing. A translator was arranged which allowed people to participate in their first language.

Additionally, participants recruited via Ligo were also divided by the LIGO teacher(s) over three FGDs. Here discussions were held with Dutch speaking participants (different levels) with a low socioeconomic status (pre-defined as vulnerable Dutch speaking population).

1.2.3 ETHICAL CLEARANCE

During the FGDs, the current COVID-19 guidelines were upheld, making the risks of infection to participants negligible. Information and informed consent forms (ICFs) were provided in either easy Arabic or easy Dutch making it more accessible for participants.

At the start of the FGDs we explained the goal of the study and the goal of the FGDs together with the ethical items such as recording the conversation, the voluntary and anonymous nature of the participation and signing the ICFs. Ethical clearance was given for the FGDs and the adaptations by the Ethics Committee for the Social Sciences and Humanities of the University of Antwerp under reference: SHW_21_77.

Note: During the first FGDs at Ligo, signing the ICFs caused distrust from the start, even after participants were given a comprehensive but simple explanation. Although people wanted to participate, signing a document was a step too far. Especially for participants with limited reading and writing skills. After Thomas More raised this issue, University of Antwerp wrote an addendum to the ethical committee, after which we obtained permission to verbally take consent.

1.2.4 ANALYSIS

The FGDs were audio-taped, transcribed verbatim, coded (open, axial and selective) and analysed. Our qualitative studies adhere to the standards of qualitative research design, analyses (QUAGOL) and reporting (Dierckx De Casterlé et al., 2012). The analysis occurred separately between both authors to obtain increased trustworthiness.

An iterative process was upheld to refine the topic list in between FGDs. This to explore topics brought up by the population as important and were initially not incorporated in the topic list. For example, FGDs 1 brought up topic X, we would check if this topic was also seen as important in FGDs 2 etc.

When this report is published (internal) the audio recordings of the FGD will be deleted according to ethical regulations.

1.2.5 SELECTION OF MATERIALS

Based on prior testing of (similar) products during roundtable discussions with intermediaries of the vulnerable populations and a subsequent internal analysis and discussion, **a set of materials was selected to be tested** during the FGDs. These were:

1. A video (DIFT): This video explained a topic relevant to the current COVID-19 pandemic (such as 'what is a vaccine'). The novel functionality of these video's is that both spoken language as subtitles can be independently changed. <https://www.info-coronavirus.be/en/vaccination-video/>
2. Brochure (Infographic): A 1-page example for testing purposes (see Appendix O) based on the lessons learned from prior steps of the project (such as using larger pictures relevant to the message).
3. Audio: A audio file with a still frame, added with the logo of the government and additional links to the website, mainly for trustworthiness of the product (see Appendix P).

To maximise the impact for the vulnerable population, the variability in the presented products was deemed important as discussed below.

1.2.5.1 DURABLE INFORMATION VERSUS URGENT INFORMATION

Throughout this project, a distinction was made between urgent and durable information. This was considered when choosing the products to be tested with the target groups.

- **Urgent information on new measures.** Urgent crisis information is information that is needed in case of social emergencies such as an attack or a nuclear disaster. This information must be available within 24 hours, which therefore has an impact on the type of communication that can be provided. An example of urgent COVID-19 crisis communication is the very first announcement that face masks are mandatory in stores from date x. This information is changeable and needs to go out quickly. Clear, minimum priorities must therefore be set for translation and retranslation.
- **Durable information on prevention and health.** Durable information is information which is not new and where repetition is necessary for societal benefit such as rules about face masks, washing hands and keeping 1.5 metres distance. The information applies for a longer period. Therefore, more time is available, and more attention can be paid to a wider variety of accessible forms and translations via a wider selection of channels.

1.2.5.2 DIGITAL PRODUCTS VERSUS NON-DIGITAL PRODUCTS

Some products are predominantly used digitally such as videos, others mostly non-digital such as brochures. To reach a vulnerable population where not everyone is equally equipped with digital devices and where not everyone has the same digital skills, both options are necessary. This factor was considered when selecting the products to be tested with the target population.

1.2.5.3 CLEAR VARIATION IN PRODUCTS

Generally, it helps the vulnerable population to make a better distinction between multiple products when these products can be clearly distinguished on their own. For example, if we test two videos, they are much harder to distinguish compared to say, a video and a brochure. This increases certainty that the participant is reacting to the currently displayed product and not to the first video of our example when in fact we have arrived at the second video. This approach was also visually supported during the FGDs by means of an image, as shown in Figure 119.

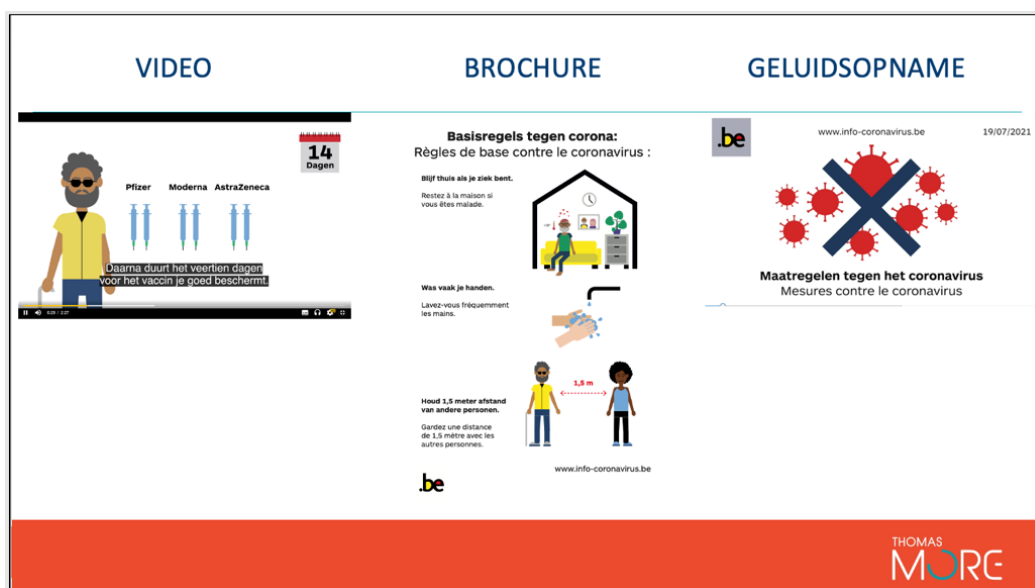


Figure 119 Visually supporting the participants to make a distinction between products during the FGD.

1.2.6 TOPIC LIST

We have constructed a topic list⁵² based on the preselected products shown above and have tested the products in terms of form and channel as elaborately as possible within the given timeframe of 1.5 hours. The topic list included interactive, hands-on activities to keep the vulnerable target group maximally involved and focused on the products to be tested. For example, after watching the video (product 1), participants received the shots of the video on paper and were encouraged to circle clear, positive aspects in green and to indicate difficult, unclear elements in red, after which we discussed the results in group⁵³. Participants got to work with tablets or their own mobile phones to try and change the language or subtitle settings of the presented video and they got to choose which product is most suitable for them and rank it by awarding every product a podium place (1st place, 2nd place....). By introducing these activity-oriented questions, participants got a short break from using oral language to express their opinion.

We know from experience and prior research that people find it hard to admit when they find something difficult to understand. In addition, responses in FGDs may be motivated by social desirability or a courtesy bias. Cultural norms in combination with power relations and the limited skills of participants to express themselves in Dutch can form a barrier to express disagreement. To overcome this obstacle, indirect questioning was regularly used. In the absence of a critical evaluation of the products, participants were asked to put themselves in the shoes of their neighbours, friends, and family members (e.g., “Imagine your dad receiving this video, would he ...”). In addition, the respondent’s overly positive responses were checked by comprehension questions (e.g., “What do you think we should do according to this brochure?”).

Regarding communication with the target group, Easy Language was used and next to more open-ended questions to explore their opinions freely, straight forward (close ended) questions

⁵² The developed topic list was face validated by Atlas, Integratie & Inburgering Antwerpen. The complete topic list is presented in Appendix N.

⁵³ This approach was inspired by the Stoplight method (Hadden, 2017).

were asked to check certain features specifically. For example, is the speed of the audio message too fast, too slow or just right?

Finally, we supported the participants during the FGD with a mainly visual presentation in the background to visualise the flow of the conversation. For example, when the conversation was steered in the direction of channel choice, several channel options were shown, as demonstrated in Figure 120. Not to direct the population to these specific channels but rather to support what we mean with the term channel.



Figure 120 Example slide supporting presentation for participants.

1.3 CONTEXT OF PARTICIPANTS

The context in which we organised the FGDs is important to fully grasp the information given in this report. Therefore, we will discuss some of the elements that defined the participants and probably influenced their opinions towards the products.

1.3.1 FOCUS GROUP DISCUSSION COMPOSITION

Due to the rather broad definition of the target population, we experienced a great diversity among participants in different FGDs (between group heterogeneity) in terms of education level and language skills. However, by recruiting at class group level (selected on language and education level), the participants per focus group discussion formed a relatively homogeneous group. This composition is seen as ideal (Kitzinger, 2005) regarding the generalisability of results.⁵⁴ The example below illustrates the contrast in level of education between the different FGDs. In the first fragment a participant (P2 - FGD1) critically questions the course of the FGDs, while the second fragment exposes a respondent (P5 - FGD4) who is more practically trained in construction.

"I also worked in GZA (hospital), in the medical sector. We also often had to do research and to study or investigate something, but what we did then, was that we asked people random questions and on the basis of their answers, we built up data and we then examined that data and we really saw that, look, it has to be this way or that way, because the lady just said that that's very normal, yes, that everyone knows that information. Maybe we do know the information here, but there are people, if you go on the

⁵⁴ Homogeneity in the group capitalizes on people's shared experiences, while heterogeneity between groups makes it possible to evaluate if the experiences are shared over different groups.

street here, for example, who know nothing at all about this information, so how are the people chosen who participate in this research? Are there other people or ...? How, yes, based on what?"

(P2 - Translated by interpreter - FGD 1)

"[My husband] did an AstraZeneca. It did nothing for him. He came from work, [he] has very heavy work in construction. He went to work at 9 o'clock, and he went to vaccination centre, did nothing for him, a little bit red, but euh."

(P5 - FGD 4)

During the FGDs it became evident that **participants found it hard not to go into discussion about the content of the products**. Although we cannot provide any hard evidence, we suspect that this focus on content was due to a) the controversial character of the central topic in the tested communication material (the subject of vaccination is highly charged) and b) the characteristics of our participants. Respondents had a hard time to reason on a more abstract level about points of improvement and were mainly able to formulate input based on practical experiences. People very easily fell into personal narratives about how the vaccination went for them and their reasons for (not) being vaccinated.

The fragment below shows how one of the respondents (P4) talks about his experiences with the vaccination (note: M = Moderator).

P4: *"Well, the first one is good, but the second one is, uh..."*

(participants speak indistinctly)

M: *"What are you saying?"*

P4: *"The second syringe, that was not good for me."*

M: *"Ah, okay, yes, I understand what you mean. We're not going to talk about the vaccination but rather what we would like to know if the video is clear." (FGD 6)*

We also noticed that strong opinions about vaccination (either pro or anti) made it more difficult to shift the focus of the conversation towards form and channel, especially in such a short time interval and with an interpreter as a delaying factor. People with strong beliefs had a hard time thinking about the products from different perspectives. This is shown below when the participants were asked to give their opinion about a product.

"The moment you choose to be vaccinated, this information is enough to know what is expected of you, how the vaccines work, how it works in terms of choice and so on. So, for P5 it is all clear, because this is what you need to know about the vaccinations"

(P5 - Translated by interpreter - FGD 2)

"I haven't been vaccinated so far and I'm not planning to either. So for me it's not clear what is or isn't good in these images."

(P2 - Translated by interpreter - FGD 2)

In addition, a large proportion of respondents still expressed concerns and questioned some of the decisions regarding the current vaccination strategy.

"P4 says that the way that [the video] is set up is very good and that the language is also very simple and accessible. However, many refugees in [MUNICIPALITY] are very afraid of the vaccine itself because they also receive a lot of other information. From their country of origin and from the Arab world. Doctors who claim that those vaccines can indeed be harmful to people's health in the long term. That one can become paralysed in certain parts of the body or that after a certain time bleeding in the brain can occur. P3 says it can even lead to death. P2 says he has also heard that after two years it can indeed be fatal or cause serious health problems. P3 adds that he's already been invited twice and has ignored it twice."

(Translated by interpreter - FGD 3)

Even after explaining the goal of the FGD, every FGD would still start with a focus on the central theme of the communication product (content). This was structurally countered by the moderators by explaining their position: *"We are no medical doctors and we do not work for the government; we are not the ones deciding the rules"*, supplemented with earlier mentioned techniques such as indirect questioning and comprehension questions.

P2: "Yes, why and who chooses where you get vaccinated? So, you get an invitation and I have to go and get vaccinated in [Municipality]. Why can't I choose another place for example?"

M: "Well, that is about the content. That's the government's decision. This is about communication."

(Translated by interpreter - FGD 2)

P3: "Why can't we choose which vaccine we get and who decides that or who decides which vaccine we get?"

M: "Yes, that's a system from the government of which I can't say that much about. What I would like to hear from you is whether the video is good. Is it a good way to convey this kind of information [...]?"

(Translated by interpreter - FGD 3)

In an earlier example, it became clear that respondents refer to information from their country of origin. **Participants who joined one of the three FGDs at Atlas** (vulnerable population speaking another language) **came from different regions and were only recently in Belgium** (e.g., 7 months). This group travelled through many different countries and encountered messages and information concerning COVID-19 depended on these countries. For some, this caused distrust, confusion, and fear. The first quote (P2 - FGD 1) shows a concrete situation in the discussion where a respondent refers to such contradictory messages and the confusion it causes. In the second example (P6 - FGD 3) we see how information from abroad is used to question the content of the displayed products.

"In Palestine, we were always taught that when you put on a face mask, the white side should be on the outside. This means that this person is safe or not infected. The blue side out means you are infected, you have a disease. So, they never talked about that and here they only put the blue side on the outside."

(P2 - Translated by interpreter - FGD 1)

"P6 thinks that certain information is not really shown on the video, because some doctors, especially in the Arab world, advise you to take blood thinners before you get your vaccine. This was also the case for him. He had to have a blood tested first. So that's [information] not shown in the video either."

(Translated by interpreter - FGD 3)

Finally, the timing of these FGDs also had some influence on the feedback - and the persistent focus of participants on content. The content themes of the communication products that we

presented to the participants was (in their view) known. Because, over the past year and a half, people have been frequently confronted with COVID-19 information via (social) media, civil society organisations, cities and municipalities, employers, and schools.

Furthermore, participants showed a tendency to easily agree with what was shown to them: *"The products are good"*. One way to compensate for this lack of disagreement and to check whether the form of a product is suitable for information transfer to the target group, is by means of teach-back / comprehension questions. However, because **respondents had prior knowledge**, this technique was not always applicable and merely confirmed the knowledge claims of respondents.

"The video was clear, but also because we we're already aware of the information [mentioned in the video] through other channels"

(P4 - Translated by interpreter - FGD 1)

"Actually, it is normal. It is all clear. We know everything, we understand everything, certainly for being corona for two years already [...] so."

(P5 - FGD 4)

When we asked respondents about specific formal properties of the products - such as the speed of the audio file in the first excerpt below - prior knowledge was again brought up as a factor that influenced the understandability of the product. In that case, we literally asked participants to place this information in another situation (not related to COVID-19) to break through thinking patterns and view the products in a broader context.

P7: *"Yes, but that, you already have in your brain what is said..."*

M: *"Uh-huh"*

P7: *"Then you follow [the pace] faster"*

M: *"Yes, but if this was new information on a completely different subject, would it be too fast?"*

P7: *"Then it would be a bit fast"*

(Participants respond in agreement) (Audio - FGD 6)

1.4 RESULTS

1.4.1 FLOW OF CRISIS COMMUNICATION AND CHANNEL USE

In this section, the results of product testing (channel use) are presented between facilitating factors that the participants thought were helpful in reaching the population and barriers that prevented the products from reaching the population.

Overall, the participants came up with a wide range of channels to make use of sending the products to the target group. Overall, WhatsApp was mentioned by most participants as a well-established channel to send products.

Although some channels were mentioned more than others, participants agreed that a wide range of channels are needed to reach the whole population for the different products.

"All things then, why, because an example of his family. The father never watches TV and only sits outside. He better get it through WhatsApp. His brother is only on Facebook of all the social media, eh so then he can receive it better through Facebook than, so that changes from person to person. For madam, WhatsApp is the best."

(Summary by interpreter - FGD 1)

"Also use everything, because, uh, one uses Facebook, another one uses Instagram. One goes to the station, the other stays at home because he is disabled or something, so if you use everything, you reach everyone."

(Summary by interpreter - FGD 2)

Helping each other and asking for help to receive the correct information was also an overall facilitator as children could help their parents or teachers could help their students or employers could help their employees.

1.4.1.1 FACILITATORS AND BARRIERS (CHANNEL)

A. VIDEO - COMMUNICATION APPS, SOCIAL MEDIA, AND PUBLIC AND PRIVATE SCREENS

When we asked respondents about how they would like to receive the video, various **channels were listed**, and respondents found it important to use this multitude of channels simultaneously to reach a broad target group.

B. WHATSAPP

WhatsApp was mentioned several times within all FGDs as a channel that is widely used by the target group. WhatsApp is used to quickly and easily forward things to family and friends (groups) and seems to be by far the most used channel.

Because WhatsApp is widely used by the respondents and their friends and relatives, it was also considered a suitable channel to share COVID-19 information in the form of a video.

"Therefore, I think WhatsApp will work better because almost everyone has WhatsApp. So, we now also communicate in the family only with WhatsApp. We send messages. You can also easily send a video with a link and so on."

(P9 - Translated by interpreter - FGD 1)

However, often participants painted an all too positive picture about the potential of WhatsApp to distribute the video. Some caution is necessary when drawing conclusions based on these statements. When is a video on COVID-19-related topics relevant enough to be forwarded? Not every message will be viewed or shared.

"WhatsApp is also a good tool, because if I get a video and I find it interesting, then I will send it to other people, also to my parents, for example, and then those parents will also send it to their friends and so on. So of course, you reach a lot of people that way."

(P5 - Translated by interpreter - FGD 2)

In addition to the many positive qualities that were attributed to WhatsApp, some participants also formulated restrictions. In one of the FGDs (FGD 4), the use of WhatsApp for spreading

important messages was questioned. Some participants mentioned that they would prefer to **receive important information via email**, to prevent this type of content from being lost between the chitchat of family members and friends. An email has a more formal character. At the same time, it also became clear over the conversations that not everyone uses this channel (frequently). Particularly people with school-age children placed a greater emphasis on the importance of email. Others did not want the video to be shared via WhatsApp, as they usually distrust these types of messages. Some participants indicated that they **do not trust URL links from a redirected website** because they want to guard themselves against possible viruses or maleficent intentions. Alternatively, it was recommended to forward the file itself rather than a website link.

M: "So P5 and P9 prefer to see important information via email rather than WhatsApp."

P7: "WhatsApp, most chat too much" (FGD 4)

M: "Social media, WhatsApp?"

(Participants respond negatively)

Interpreter summarises: "No"

M: "Why not? Why no WhatsApp?"

Interpreter summarises: "No, it's more for privacy."

M: "But suppose he were to get the video; would he distribute it himself through WhatsApp?"

P6 (As translated by the interpreter): "No, because there are many people who are then uhm afraid that they vir, yes so links actually have viruses inside."

M: "So he would not trust it."

Interpreter: "Don't trust it."

M: "And does everybody think that way?"

(Participants respond in agreement)

Interpreter summarises: "Yes" (FGD 3)

M: "Yes. Just now it was decided with the video "no WhatsApp", because we don't dare click on that. But with this audio product it is no problem?"

Interpreter summarises: "Because an audio is not linked to a website. So that can be sent as a file via WhatsApp".

M: "That can be done via WhatsApp. So, people don't have to be afraid to click on that."

(Participants respond in agreement)

Interpreter summarises: "Yes" (FGD 3)

C. SOCIAL MEDIA

There seemed to be a bit of support for **Facebook** as an interesting additional channel for video, but only as such: **as an extra medium on top of distribution via WhatsApp**. Roughly all participants had WhatsApp installed on their mobile phones but not all attendants had a Facebook account. Besides Facebook, other social media channels such as Twitter, Instagram and YouTube were only briefly touched upon and this by a limited number of participants. It happened in a more pro forma way, as if participants wanted to supplement the list of social

media platforms. Except for Facebook, none of the participants could be identified as frequent users of these online platforms.

"So P3, P5 and P1 also say Facebook is a good option."

(Summary by interpreter - FGD 2)

"So, everyone says on Facebook is much better because you also reach a lot more people with it."

(Summary by interpreter - FGD 3)

"WhatsApp also works well, because almost everyone has WhatsApp. So, if I get a video like that, I will also send it to a lot of family members. So, most do have WhatsApp, but Facebook or YouTube... not everyone has Facebook [...]"

(P3 - Translated by interpreter - FGD 1)

Finally, some participants had doubts about Facebook as a good channel to distribute videos. They found **Facebook more suitable for fun-related content** and less appropriate for spreading weighty, serious messages.

"Yeah, so it's too much information to be put on Facebook. Facebook serves for other things, we do other things with that, that's maybe more for fun, for fun things to share and not so much for corona information."

(Summary by moderator - FGD 5)

"P9 thinks Facebook might be less suitable because there is quite a lot of information in the video for Facebook. Additionally, P9 indicates that WhatsApp is faster and easier."

(Summary by moderator - FGD 1)

D. PUBLIC AND PRIVATE SCREENS

Screens at home and in public spaces were also cited as an interesting distribution channel for the video. Television is generally seen by the target group as a reliable source of information.

"And television always works. You can never turn it off either. Because when I was in Lebanon, so in the beginning of the corona period, we got all the information only through television. So not through the phone or so and it worked. So even when you watch a movie or something, there's those messages coming from underneath. Those were good too. And it was a daily activity so at eight o'clock every day sitting in front of TV to get the information."

(P3 - Translated by interpreter - FGD 1)

"As far as I am concerned, television is still the best way to get in touch with people. Euh, that's how we've always been used to it. If we want to hear something official from the government, TV is the first possibility."

(P3 - Translated by interpreter - FGD 1)

"(...) the TV and the radio every day. I don't go to bed without the news, I go to sleep, I have to listen to the news and then I go to sleep."

(P7 - FGD 6)

However, from the responses of our participants, we were able to deduce that both vulnerable non-Dutch speakers as well as vulnerable Dutch speakers **still rely on broadcasts from their home country**, especially those whose language level is not strong enough to fully understand Dutch news. It seems that mostly people with school-age children watch Flemish television programmes.

Children can support their parents in understanding the messages. Some participants also indicated that combining broadcasts from their country of origin with Flemish television caused confusion.

M: "And on television, with us, it's in Flemish of course. Is that not a problem?"

Interpreter summarises: "Yes, we'll manage to follow this kind of information, because we still have children who can explain. Sir doesn't watch Flemish television, but madam does. Especially because there are children in the family. Madam in the back also." (FGD 1)

In general, participants found it hard to come up with channels to distribute the video to older people.

"Okay, so both P4 and P7 suggest showing the video on TV. [...]. But P2 did gave a sincere remark, or a justified remark sorry, that most people from the older generation actually watch TV channels of their own home country."

(Summary by interpreter - FGD 3)

A possible alternative distribution channel - at least for people who are sufficiently skilled in reading subtitles in accessible Dutch - is **screens in public spaces and urban environments**. The possibility of showing videos in the doctor's waiting room, the pharmacy, city hall... was not actively brought up by participants but the idea was positively received when mentioned by the moderator. Yet participants found it hard to provide specific alternative broadcast locations. Multiple participants mentioned using "everything" and only a few provided concrete examples such as billboards in a football stadium, in trains or at bus stations. Participants did not consider the fact that in such public locations it is not possible to view a video with sound and in multiple languages.

"Yes, indeed, because Facebook is not suitable for everyone of course, so that's why I say the screens on a [train/bus] station for example and on TV for example and then via all kinds of channels. In the commercials or between programmes for example you just give a message this way."

(Summary by interpreter - FGD 2)

"Yes, but why don't we use everything? Why don't we use other ways? Euh, what do you call that? Euh, billboards for example, football for example where you see a lot of advertisements then come through in those screens. We can also use anything that can be used to transmit information."

(P2 - Translated by interpreter - FGD 1)

E. BROCHURE - COMMUNICATION APPS, PUBLIC SPACE, AND THE ROLE OF INTERMEDIARIES

Participants came up with many options to use as a channel to distribute the brochure. Once more, social media, and most prominently **WhatsApp** were mentioned for providing the population with information.

M: "Okay, and P4, how do you want to receive those brochures?"

P4: "WhatsApp." (FGD 6)

Regarding the distribution of the brochure, the participants placed a strong emphasis on **visibility in public spaces**: in the streets, in common areas of their living quarters ("at the front door") and places where people come together such as cafes, sport events, houses of prayer, ... In addition to the use of public spaces to provide brochures, posters were also mentioned.

P10: "And just in the streets?"

M: "In the streets?"

P9: "Everywhere in the streets"

(Participants speak indistinctly): "Café, too. Café"

P4: "(...) for euh sports"

M: "Ah, where people gather to play sports?"

P4: "Where there is a lot of people"

M: "Where there's a lot of people gathering, that's where it should be (...)"

(Participants respond in agreement) (FGD 5)

Regarding printed communication, several respondents over multiple FGDs pointed out that this type of communication material often reaches them through **an intermediary**. The examples given varied from schools (in case of respondents with school-age children), employers and through the doctor's office.

"Through work, so through different companies, certainly large companies. A lot of information can also go through flyers, brochures and so on, so that employees can also get from their employers that this kind of information is also shared."

(P6 - Translated by interpreter - FGD 2)

"Well indeed from school, or in the doctor's office, or (...)"

(P9 - FGD 4)

"Others mention the town hall, hospital, government, sports hall, and display it in large at the school gate."

(Summary by moderator - FGD 4)

M: "Yes, the schools communicated a lot? You get a lot of information...?"

P8: "Yes, that a lot, yes, a lot of mums, a lot of kids always give message (...) people know that." (FGD 4)

When we asked the participants about possible distribution channels ("How do we get this brochure to you/your family, friends and neighbours?") their first reflex was often to reply: **"by**

post". After discussion, however, most people agreed that we would not be able to reach everyone through the mailbox and receiving the brochure at home was deemed unnecessary. The following reasons were cited:

1. The brochure cannot be sent in the correct language. According to the participants, the link on the brochure that directs the reader to a foreign-language alternative (on the federal government's website) will not be visited (See 5.3).
2. Most people throw away a brochure when they receive it by mail. This statement was also confirmed by the conversations we had with Atlas and Ligo. In general, the target group has trouble distinguishing important from less important mail.
3. Participants receive the information via intermediaries and want to see it presented outside (as discussed before).

"I don't think it should be in the mailbox."

"You get that everywhere. I don't think it should be in the mailbox."

(P9 - FGD 4)

"Because you already receive the information through various means, receiving a brochure at home seems somewhat superfluous according to the target group."

(Summary by moderator - FGD 6)

"That goes straight to the bin. Everything that is advertising, they are not even going to bother to read it. They know it's not a bill, so it goes straight in the bin."

(Summary by interpreter - FGD 3)

"It is not necessary to get it at home, because, home, that's not the place where you should be careful. It's actually outside now and that's why the sensitisation has to happen outside."

(P7 – Translated by interpreter - FGD 3)

"I think if it's put in the mailbox (...), that people just throw it in the bin."

(P5 - FGD 6)

Some participants mentioned that by **using multiple media outlets** people could better remember the information and link information that they saw online for example, and again during their commute on the bus.

"Yes, so just the posters on the street."

(P3 - Translated by interpreter - FGD3)

"He says even if you spread information via Facebook for example, they will see this information and they will probably forget about it quickly because people have so many things on their minds, however, if they see it again on the street in a big way, this will refresh their memory."

(Summary by interpreter - FGD3)

F. AUDIO

As with the previous products, participants referred to WhatsApp and Facebook as potential distribution channels. Overall, however, participants felt that due to the urgency of the information communicated via the audio file, it is important to disseminate these messages through a range of **different channels** to reach everyone in time.

"Also use everything, because one uses Facebook, another one uses Instagram. Some people go to the station, the other stays at home because he is disabled or something. So, if you use everything, you reach everyone."

(Summary by interpreter - FGD 2)

One channel not mentioned before is the **emergency SMS**. At several FGDs, participants pointed out the potential of this alert system to reach all Belgian residents with urgent information via their mobile phone provider. Respondents indicated that if they received the link to the audio file via such an official text message, they would be more likely to click on it. Concerns about phishing and the reliability of the information are allayed by working with a recognizable and official number. And it is precisely here that, according to participants, there is still work to be done: the number used by the government for SMS communication in urgent situations must be made widely known.

"Yes, so first you share the number via social media for example or on the busses, everywhere. You make clear "this is from the government". The town hall also sends..., because then they probably also know the numbers of the people who live in the town and so you make the number known to the people in different ways."

(Summary by interpreter - FGD 2)

P5: *"I also once had... I came from the (...) and I was in the tram almost to [PLACE] and suddenly my phone started to ring- allé, my smart phone - and it said danger and you had to keep the windows of your car closed and (...). I think it's good that that's on that, well (...)"*

M: *"Would you like to get something like this on your phone if there's something really urgent?"*

P5: *"Yes." (FGD 6)*

"It has to be known who is sending it. The number must be known to open the file sooner. P9 also says that it is first checked by clicking on it before sending it on to the family."

(Summary by moderator - FGD 4)

P5: *"WhatsApp, with that, why WhatsApp? It's easy. Everyone can hear it."*

M: *"Yes"*

P5: *"Then you know where that [information] comes from. Then you know the person, then you're going to click anyway."*

M: *"Yes, you mean, if you get a WhatsApp message, it's from someone you know?"*

P5: *"I know yes" (FGD 4)*

Respondents state that messages sent via WhatsApp generate trust because you know who the message comes from. People want the same piece of mind when it comes to urgent government

communication received via SMS. People indicate that they are wary of information distributed via SMS and they find it hard to distinguish between legitimate and maleficent messages. In addition, there is also always the risk that the recipient considers the information as an advertisement and therefore not opens the message.

P7: Erm, yes, us people, allé, the people of the class would say yes, but then other people I am doubting."

M: "Why do you doubt?"

P7: "Yes, some people see advertising oh, that's advertising I remove that."

M: "Yes, so do you think they wouldn't click on it?"

P7: "No."

P5: "Or some people"

P7: "Some people don't dare to open things like that."

M: "Don't you dare do things like that."

P7: "We always post a (...) then you really shouldn't click eh."

M: "Yes"

P7: "Because euh that's also (...) not to open."

M: "Yes, so you think people won't trust it. They won't dare click on it."

P7: "Yes, but if those people, yes, if those people don't understand that, they're not going to open it."

P8: "I always look at the name of the person who sends it."

P7: "Because sometimes you receive very strange things by phone and you really don't dare open it. Last year, I received a text message. It mentioned the name of the tax department: 'you have to pay so and so much, 15 euros'. I showed it to my husband. My husband said 'don't click'. Then I asked at work, she said 'no, don't click, don't open'." (FGD 4)

1.4.1.2 QUESTIONS FROM PRIOR INTERNAL ANALYSIS (CHANNEL)

The conversations made it clear that the target group is usually **not actively looking for information**. Information about COVID-19 mainly reaches them **through (or with help of) an intermediary** (a teacher, a friend, the children, a doctor, an employer).

"Through work, so through different companies, certainly large companies, a lot of information can also go through flyers, brochures and so on, so that employees can also get from their employers that this kind of information is also shared."

(P6 – Translated by interpreter - FGD 2)

P7: "In the beginning of the corona I would've liked the information to be sent to me personally, but currently I have already received that information at work as well."

M: "P8 confirms that this also applies to her. P5 stressed that her husband receives information letters about safety and corona every Friday." (FGD 4)

M: "Would you go there? To a website? Would you look it up?"

P7: "No, I count on my teacher, who sends me the news." (FGD 4)

"When older people receive a letter, they seek help from others to explain what it says. P6 thinks both video and letter are necessary. P1 indicates that help from the environment is important."

We asked participants if they had noticed the URL link on the products and if they would go there for additional information. It became clear that hardly anyone had noticed the presence of the website / link. Most participants also indicated that even if they noticed the link, they still would not visit the website. Most participants were not aware of the existence of the website.

"I did not look at it. Didn't see it. So P1 did see it, but the rest didn't."

(Summary by interpreter - FGD 2)

M: *"But to go to the website and look for it, I actually hear everyone except for P5 say: 'I wouldn't go to that website.'"*

(Participants respond in doubt)

P5: *"I would do it to (...)"*

M: *"P8 too? Would you visit the website?"*

P8: *"No" (FGD 6)*

"Or you just make a website that is clear just for the information that everyone can visit that."

(P8 – Translated by interpreter - FGD 2)

1.4.1.3 AGE AND CHANNEL USE

In most FGDs, participants agreed that channel use varies widely across generations and that it is important to take this into account.

"For older people, you can work for example through texting or something, so that you send that in a kind of message."

(P8 – Translated by interpreter - FGD 2)

"My neighbour wouldn't [watch this video], because that lady is ninety-five years old."

(P4 - FGD 6)

When we asked people to evaluate the products through the eyes of their relatives or neighbours, often the participants imagined their parents. They indicated that they help their parents to process and use COVID-19-related information, while older participants, in turn, relied on their children for help.

"My mother used to be unable to do that either, but my niece taught her during the Easter holidays: You have to do like this, you have to do like that and she taught her."

(WhatsApp use - P7 - FGD 4)

P7: *"So when she... Sometimes when I'm watching TV and in the news measures and so on, when I finish the news, I tell her."*

M: *"Yes, you make a translation?" (FGD 4)*

"Yes, it is easy. Yes, I have email from my daughter, but I don't always use. My daughter always helps me."

(P11 - FGD 4)

It also became clear that the younger population found it hard to think of ways to reach the older generation and vice versa. It was generally assumed that older people rely more on newspapers and TV, while the younger population tends to use social media more.

"...not focusing only on Facebook, but also on other social media of course, so you have Instagram, you have Twitter, you have other kinds. So, everything that people use from the younger generation."

(P8 - Translated by interpreter - FGD 2)

"But what you can do for older people, says P3, is send it by post. Because they are still going to read papers and newspapers and so on. But for younger generations, it's better to send a picture or a PDF via the mobile phone. That's what P2 also says."

(Summary by interpreter - FGD 2)

During the COVID-19 pandemic in Belgium, participants saw a shift in channel use among their parents and older generations. Because of the restrictions, people could not get in touch with their family through traditional family visits, which led to creative solutions. One strategy was to teach older family members how to use WhatsApp, so they could still connect with other family members.

"Or then she tries to call, allé, every time for her, yes, mom call here, or tries WhatsApp, every person who has WhatsApp, as she knows. "... And she wants to call, she wants to call. She calls her sisters, her brothers."

(P5 - FGD 4)

1.4.2 PRODUCT EVALUATION

This section presents the results of product testing (form). We discuss both facilitating factors – elements that the participants thought were helpful for comprehending the message - and barriers that prevented understanding.

1.4.2.1 FACILITATORS AND BARRIERS (FORM)

A. VIDEO

The educational aspect of the video was appreciated by participants. The video raised several substantive themes that were still unclear in society. The explanatory communication helped to counter the kind of information that for example, states that "COVID-19 is only a flu", a message that was especially pronounced early in the pandemic. Countering this latter example seemed to work according to the participants because facts were stated without any motivational intent. For example, specific symptoms were communicated which could be COVID-19.

"A lot of people who had symptoms of corona said 'no, it's just a cold, this is just another flu' and so on, but when we got that information, look, this is also corona, they also started to understand."

(P4 – Translated by interpreter - FGD 1)

While factual information can prevent misconceptions, the content of these messages does not always reflect people's reality. During the FGDs, participants provided numerous examples to demonstrate that their own experience (or the experiences of people in their environment) does not always match the content of the video. An often-mentioned example was about choosing a vaccine. The video shown to the participants told them that no vaccine could be chosen. However, the participants disagreed with this statement because they still managed to get the vaccine of their choice. These **contradictions between content and experience lower message credibility.**

P5: "I called to make an appointment because the code was blocked. After I called, they said: 'yes, the code is blocked, okay, can you come and do AstraZeneca?'. I said to them: 'No, I don't want to do AstraZeneca.'. They said: 'You just have to wait until other vaccines come available.'."

M: And then you still managed to get the vaccine you wanted.

P5: "Yes, yes." (FGD 4)

"By accepting the invitation at a later stage, people could still choose. P7 therefore finds it strange that this is possible, while the video tells us we cannot choose."

(Summary by moderator - FGD 5)

Participants reacted rather strongly to the message that citizens do not have the freedom to choose between available vaccines. During almost all FGDs, participants asked questions about this lack of freedom. The transparent presentation of the vaccination course (more specifically the multitude of vaccines shown in the video) caused extra confusion.

"Syringe. One is very good, better. One... I don't know bad or something?"

(P4 - FGD 4)

"Why can't we choose which vaccine we get? And who decides that ... Who decides which vaccine we get?"

(P3 – Translated by interpreter - FGD 3)

M: "So you want to know why Johnson & Johnson is only 1 syringe? That's what you're missing here, that they don't explain this properly?"

P1: "Yes" (FGD 6)

M: "Very good, so you are not allowed to switch vaccines. Have we remembered anything else?"

P2: "All three is good."

M: "All vaccines are equally good."

P2: "But sometimes people say that vaccination Pfizer is more good." (FGD 5)

To avoid confusion and dissatisfaction, participants suggest talking only about “the vaccine” in general, rather than highlighting the differences between vaccines. For example, respondent P7 (FGD4) asks whether we should communicate the different brand names since the result – protection against the virus – remains the same.

"Yes, but the effect is all the same."

(Vaccines, P7 - FGD 4)

"Yes, so for him, it's not that he personally has a problem with whether he gets Pfizer or some other vaccine, but if he sees it listed like that, then you, you create a bit of doubt: 'Why should I get Pfizer instead of Johnson and vice versa?'. Just use the word 'vaccine' in general."

(P3 – Translated by interpreter - FGD 3)

TRANSLATION – SPEECH AND SUBTITLES

The translations provided in the video were highly appreciated by all participants. Both the possibilities to change the spoken language and to add subtitles were very positively received.

- People who did not speak Dutch found the translated information accessible and easy to understand in their native language of choice.
- People whose language level was not proficient enough to understand the entire message, set the speech to Dutch and the subtitles to Arabic and they told and demonstrated to us that they could understand the video well after this configuration.
- People who spoke Dutch did not need Dutch subtitles. They recognised that subtitling could be important for people with hearing impairment.
- Subtitling support was also considered relevant for target audience members who speak an Arabic regional variant. According to our respondents, these people can read Standard Arabic, but have more difficulty understanding spoken text (e.g. P6 - FGD 1).

"You sometimes have people who don't understand all the Arabic dialects or at least not the Standard Arabic. So, for someone from Sudan, especially in the case of Standard Arabic, it is difficult to listen to, but not to read."

(P6 – Translated by interpreter - FGD 1)

"So P4 says that the way it was written and published was very good and the language is very simple and accessible. P2 asks if there are many more informative videos and if they can be distributed on how that one had to further allé be careful."

(Translated by interpreter - FGD 3)

M: "And do you read those subtitles?"

P5: "Yes, I do."

P2: "I can't read the subtitles. But I understand what they mean."

M: "Yes. And do you understand how it's said?"

P2: "Yes."

M: Okay, because it might be that it's too small, too small subtitles and (...)

P2: "No, it's not too small, but I just can't read." (FGD 6)

UNDERSTANDABILITY, USABILITY, AND TECHNICAL ISSUES

Several factors influenced the understandability and usability of the video. One of the features of this product, is that one can adjust the speed. The **default speed level of the video** was proficient for everyone to properly understand the video.

"P3 says that it is spoken in Easy Language and in a calm manner so that everyone can understand. Both younger and older people can understand it."

(P3 - Translated by interpreter - FGD 2)

In one FGD (FGD2), participants argued that the title of the video should be clearer. By **clarifying immediately in the title that the video deals with COVID-19 vaccination** (and not just vaccination in general), people would pay more attention from the start. (See Figure 122)

"Also make a clear title like: 'look, this video is about this or that'. So that people will pay attention a bit"

(Summary by interpreter - FGD 2)

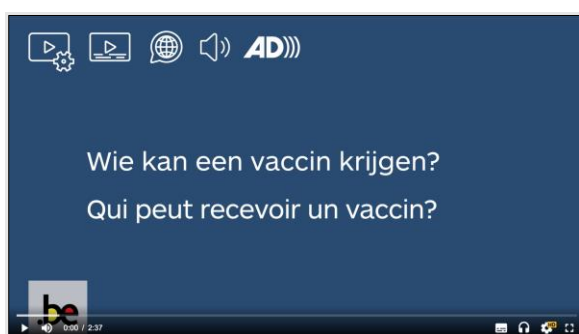


Figure 122 Title - Start screen of DIFT-video.



Figure 121 Support for explaining how to change subtitles or language in the video during the FGDs.

During the FGDs, we encountered **several technical barriers**. The DIFT video was new to all participants, no one had ever seen it before. The functionalities of the video (changing the language and subtitles) were tested during all FGDs. Before testing the product, we explained to the participants – supported by a PowerPoint slide (Figure 121) - how to change the language and subtitles.

The first technical obstacle had to do with **sharing the video**. The website (www.info-coronavirus.be) was not always accessible and furthermore no download link for the video was available. This makes it difficult to share and forward the video. Certain participants were therefore unable to access the information / the product at the time of the FGD. If people manage to get to the website after referral, they end up on one page where all videos on all topics and for all types of f are displayed. For example, during multiple FGDs, several participants came across a video intended for people who use sign language. Yet people did not understand that they did not belong to the target audience of this video. During the FGDs, we tested QR-

codes as an alternative way to distribute the video. However, most participants were unable to scan the QR-code themselves. Participants suggested YouTube as an interesting way to distribute the video (at least if the online video platform offers the same language-setting features in the future).

When everyone had the video in front of them (FGDs 1-3, 5) we asked participants to change the language to Arabic, their native language. In Table 25, one can see how many participants managed to change the language of the video. **Participants did not find it easy to adjust the settings**, even those who had experience watching videos on YouTube. They agreed that a good explanation of how to use the video is indispensable.

FGD 1	5 out of 8
FGD 2	3 out of 8
FGD 3	1 out of 7
FGD 4	Dutch speaking (not tested)
FGD 5	3 out of 7 (Low level of Dutch)
FGD 6	Dutch speaking (not tested)

Table 25 Number of people who managed to change the language and/or subtitles in the video after an explanation with visual support.

M: "Do you think that when people get a video like this, they will understand that they can change the language or subtitles?"

I: "So they all say: 'No, they are not going to know that language and such can be changed'. P7 says: 'This is actually a regular YouTube video. Via YouTube you can also go to settings there, but to know that subtitles are on the other side... not everyone is going to know.'." (FGD 1)

"It wasn't clear to me either. So, if you hadn't shown me that [example on how to change the language], I wouldn't have known [how to adjust the settings]. We all watch YouTube and stuff at home, but I'm not going to immediately think 'Look, I can change some settings below'. So, if you really can't work with technology and so on, then you don't know [that you can adjust it and how you can do it]."

(P4 – Translated by interpreter - FGD 1)

Also, age played an important role, as **almost none of the older participants were able to change the language of the video without assistance**. Usually, younger participants were able to manage the settings after a short explanation. Earlier it became clear that older people dependent on their network for help. Therefore, one must consider different methods to explain how to access and change the settings of the video. **One option to better meet the needs of older people is the ability (for intermediaries) to prepare the video in a specific language**. People from the target group do not choose the optimal language settings themselves, the intermediary decides this for them.

"I think that for younger people, who are more technologically proficient, it would be enough to give a brief explanation in the video itself about how it can be changed, but for the older target group it has to be done differently."

(P5 - Translated by interpreter - FGD 1)

M: "(...) that's no problem, but when I send the video it's in Dutch. Would you like to receive it in your own language?"

P6: "Yes."

M: "Would you be able to change the language in the video to your own language?"

P6: "Uh, no, my son (...)"

M: "Your son could help you."

P6: "Yes." (FGD 5)

During the FGDs, it became clear that in addition to the difficulties in selecting the language, the video also contained a **technical bug**. When people wanted to select Berber as their language, the video started in Arabic. This situation highlights the importance of testing to identify areas of improvement.

P7: "Berber is not, it is not. Not Berber at all."

(Participants speak indistinctly)

P1: "No, it doesn't."

M: "Doesn't it?"

P1: "No."

M: "It is very important that you mention this. So Berber..."

P7: "No, in Arabic."

P1: "It's all Arabic."

P7: "Only Arabic"

M: "Because actually there is also the option of Berber, but that is (...)"

P1: "No, if you, I just checked, if you click on Berber, it starts talking Arabic." (FGD 4)

B. BROCHURE

Participants came up with several facilitating factors for the brochure. It was unanimously decided that the use of **colour is preferable to a black and white print**. It attracts attention, which makes people more inclined to have a look at it.

I: "So that [black and white print] will, if there is no budget of course, be clear enough. But of course, they say, madam says, everyone says, colour is much better."

M: "And why is it much better?"

I: "It's also easy and it gives more ease to the eyes. P3 says it's more pleasant to look at."

(Summary by interpreter - FGD 3)

"P2 and P8 say that if you look at the grey, it might not be very clear to some people that [this picture] is about hands. Seeing it in colour makes it more certain that people understand what it is about."

(Participants respond in agreement)

(Summary by moderator - FGD 5)

We asked participants if they understood the message and if they could explain it to us in their own words. We also asked whether their parents or neighbours would understand. **Respondents were able to explain the message well with each picture**. This was also the case with the black and white version, although some participants felt this version of the brochure would limit the interpretation for others. (Note: There is considerable prior knowledge about the topic. These responses need to be considered with caution.)

"So, stay at home, wash hands, keep your distance,... Without reading, without hearing, she [mother] knows that, ... she already knows that because of the pictures."

(P5 - FGD 4)

P8: *"Yes, stay home."*

P7: *"If someone is sick, they should stay at home."*

P5: *"But anyway, if someone is sick, they have to stay home in quarantine. That is so, that (...) you infect other people." (FGD 4)*

"Distance is also clear to the group. P5 also mentions that if you are sick you should stay at home."

(Summary by interpreter - FGD 3)

Some people noted that the brochure was not in line with the golden rules. They noticed for example that wearing a face mask was not depicted. Overall, people agreed that **information must be complete**, otherwise it creates space for discussion.

"Yes, maybe wear face mask is missing."

(P11 - FGD 4)

I: *"So sir also says that he misses the face mask here, because we are talking about the essential rules or Golden Rules, so to speak, and the face mask is also one of those Golden Rules, because you are talking about staying at home when you are sick, washing your hands, keeping your distance. Well, a face mask is also part of it, normally it has to be on there."*

M: *"So people are actually saying it's not complete?"*

I: *"Because we're going to have discussions because of this. When it is compulsory for a face mask, I can also say to the police officer, no, look, it's not in the Golden Rules, so I'm not obliged to do that." (FGD 1)*

There was some discussion about the first picture of the brochure "stay at home when you are sick" (Figure 123). **The pictogram raised additional questions** such as "Should someone who is sick stay alone in a room?" or "Can people still go outside to the park when they are sick?". People indicated to **be more specific** and some participants asked to enlarge the pictogram.

Blijf thuis als je ziek bent.

Restez à la maison si
vous êtes malade.

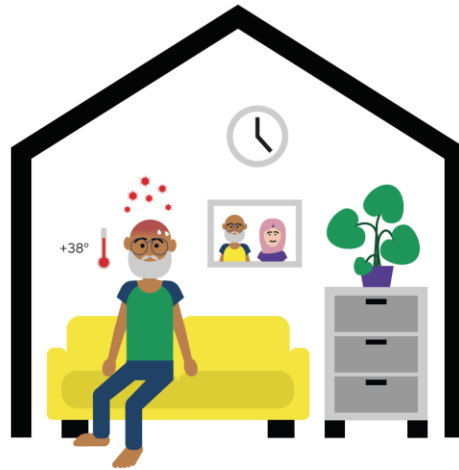


Figure 123 Brochure - Pictogram 1: "Stay at home when you are sick".

"All pictures are very clear. It's just that, as P4 also says, the first photo should be much more detailed, larger, but also clearer and give more instructions so that people know that if you have Corona, you should not only stay at home but also separately in a room so that your other family members do not have to worry about it."

(Summary by interpreter - FGD 3)

"P4 and P11 mention that only one person can be in the room. This information is missing on the quarantine pictogram."

(Summary by moderator - FGD 4)

Staying at home. One can also go to the park if there are not too many people. Get some fresh air."

(Summary by interpreter - FGD 3)

The participants stressed the importance of different languages. However, they doubted whether multiple languages on a brochure would increase clarity. To avoid a brochure that is too busy, participants thought it would be best to mention on the brochure that the document is also available in several languages. Some respondents suggested using a QR code or a simple, accessible website as a solution to get the brochure's message across in different languages. If they would receive the brochure in a language they do not understand, they would ask for help. Only one (younger) participant mentioned the translation capabilities of his mobile phone.

"It is the Netherlands and it is Belgium, keep it in Dutch, otherwise how many languages will you choose?"

(P1 - FGD 6)

"So, you have to ... You don't have to put all the translations underneath, because otherwise it's too much on one page, but you put Arabic, French, other languages underneath, so people know that the whole text is translated into other languages."

(P5 – Translated by interpreter - FGD 2)

C. AUDIO

There were quite a few ideas to improve the audio product. The Arabic version of the audio still frame is shown in Figure 124. The participants' first comment was that the **translation from Dutch to Arabic is incorrect**.

"Also, what is written in Arabic is not readable. Because that is in loose letters not correctly, from left to right, so is not correct."

(Summary by interpreter - FGD 2)



Figure 124 Audio product still frame of Dutch-Arab version.

Participants thought it was a good idea to link a picture to the audio file, as it generates more interest. Moreover, by adding the **logo of the Belgian federal government to the product, it was considered more trustworthy**. Although respondents could not always identify the logo, they knew it was something legitimate. The participants mentioned that the website could be displayed more prominently.

"So, for me it's clear that there are also those viruses on there, and that this is about corona, then I can also listen with more interest without even reading or so, so if I look and listen there, it works."

(Summary by interpreter - FGD 1)

"Yes, especially for refugees, then [the logo] is going to attract more attention. When they see that [logo] and they know it's from the government then it's important to them."

(Summary by interpreter - FGD 3)

M: "What is that for? [Logo]"

P8: "For town hall"

P5: "Country?"

.....

P6: "Yes, it's (...) officially so"

M: "That it's official because that logo is on it?"

P6: "Yes"

M: "Does everybody agree?"

P10: "Yes" (FGD 5)

"Only the link or website where one can find extra information should be displayed more clearly on the screen."

(Summary by interpreter - FGD 3)

The participants would prefer to see more figures – symbols, pictures, pictograms - linked to the content of the audio. Such minimal visual support would make the audio file more interesting, and it could also help people understand the information better. For the same reason,

participants also requested subtitles. Participants indicated that the image used is clear but believe that it would not have been clear at the start of the COVID-19 pandemic.

Note: The participants first saw the video product before they listened to the audio and were very positive about the subtitles.

"But when you only have to listen to some crosses there or viruses here, it is not interesting"

(P7 - Translated by interpreter - FGD 1)

"I can understand what's being said, but, when you have subtitles and you have photos... When you have a video, so to speak, like we just saw. Uh, clear photos, then it sticks and grabs your attention."

(P7 - Translated by interpreter - FGD 1)

"I'm missing a subtitle here, just like we saw below the video. That one was clearer."

(P2 - Translated by interpreter - FGD 1)

"With sound only and without further support, it is difficult for P6 to hear everything and subsequently difficult to comprehend. P8 also finds it difficult because it is only sound. P9 and P5 sometimes understood the audio and sometimes they did not."

(Summary by interpreter - FGD 2)

"In the beginning of Corona, the image would not have been clear, but now it is, because much is known."

(Summary by moderator - FGD 4)

Participants agreed that the **audio was played too fast** and therefore they could not understand and remember all the information. For some, the audio file was also **too long** and it was generally **hard to follow**.

M: "What do you think?"

P2: "It's fast."

P5: "Yes, it goes fast."

P2: "Fast."

M: "Uh, too fast?"

P2: "Yes, much too fast."

M: "Okay, so"

P5: "But now if that gets on the radio, that's already a (...)"

M: "Yes?"

P5: "If you are driving in your car and they pass something like that..."

M: "Yes. Does everyone think it's going too fast? P4 nods. P7?"

P7: "Yes" (FGD 6)

M: "You think it's too long?"

P9: "Too long, yes."

P7: "Young people would say yes, maybe"

M: "Young people would? But older people wouldn't?"

P7: "I don't know, that's, like my mum, when she gets the video, she watches it for a bit and then she puts it away."

M: "And why do you think they don't keep listening or watching?"

P7: "Yes, like my mother who speaks, well she speaks Dutch, but she doesn't understand it very well" (FGD 4)

P6: "Sometimes I do not understand things, it's hard for me."

M: "How about the others?"

P8: "Yes, for me it's difficult."

M: "Yes."

P8: "It's a bit difficult, but that's all."

M: "To understand, because it's only sound?"

P8: "Yes, yes." (FGD 5)

P1: "Children under 12 do not participate, what does that mean? That doesn't count or?" (laughs)

P2: "Yes, those don't count" (FGD 6)

1.4.2.2 QUESTIONS FROM PRIOR INTERNAL ANALYSIS (FORM)

A. AUDIO

During a previous internal analysis (see PART 3), the question arose whether a synthetic voice could be used to save time when producing urgent messages. During the FGDs with vulnerable Dutch speaking participants we compared the use of synthetic and natural voices and we noticed that **participants had more difficulty understanding the synthetic voice than the natural voice.**

"The last one [with a natural voice] is preferred over the first one with the computer voice. We should be careful not to use that. Erm, but the lady says some information of the [audio synthetic voice] is too difficult, and the other lady says that too."

(Summary by moderator - FGD 5)

"The audio file [with synthetic voice] is very difficult for P10 and P6. They also indicate that it went too fast. The speed was mentioned as a problem by several participants."

(Summary by interpreter - FGD 5)

B. VIDEO

Questions from the internal analysis regarding the video were:

- *How many languages should we include?* This question did not come up at any FGD, so we decided that it had no precedence over the other topics discussed. In general, the

participants were very pleased with the option to listen to the information in another language, as explained earlier.

- *How to best combine languages through speech and subtitles?* During the FGDs we noticed that the combination of the two happened naturally.

M: *"Because you had selected spoken Dutch and subtitled Arabic?"*

P8: *"Yes, Arabic"*

M: *"And that went well with understanding?"*

P8: *"Yes. Yes." (FGD 6)*

1.4.2.3 FINAL EXERCISE (RANKING THE PRODUCTS)

In a final exercise, participants were asked to rank the products in order of their preference. Generally, the participants **did not find it an easy exercise**. Most had a hard time choosing between products. Especially in FGD 5 and FGD 6, where some participants voted on two or even three products for a shared first place. During this exercise it became clear that, apart from all the feedback, participants were quite pleased with the products. As we can see in Table 26, on average the video is rated as the best product, despite the technical issues during testing. The brochure scored second place and the audio product third.

		1 (Gold)	2 (Silver)	3 (Bronze)
Focus group 1				
	Audio	1	0	6
	Brochure	3	3	1
	Video	3	4	0
Focus group 2 & 3				
	Audio	0	1	13
	Brochure	4	9	1
	Video	10	4	0
Focus group 4				
	Audio	0	0	10
	Brochure	3	7	0
	Video	7	3	0
Focus group 5+6*				
	Audio	3	4	8
	Brochure	11	2	2
	Video	7	5	3

Table 26 Ranking of the products by participants. (*One could not choose and preferred several products)

1.5 CONCLUSION

Note: A variety of specific feedback was provided. Both in terms of form and channel about three different products and about specific technical matters. Therefore, we recommend reading the the other chapters and parts of this report, when looking for an elaborate understanding on either a specific product, form or channel.

During the FGDs we experienced appreciation from the participants towards the shown products. In the next sections we take a closer look at the more overarching topics that became evident to us during the FGDs.

TESTING / CO-CREATION

Testing the communication products seems to be very important for the vulnerable population as multiple issues surfaced that would have had a major impact on the understandability or usability of the products. Examples that were given in this report were **technical issues** such as the absence of a download link to send the video file to friends or family or that the Berber and Arabic spoken language options were mixed up. These issues can be tackled during the development phase and prevent issues in a later stage of implementation. Furthermore, testing will provide the developers and the government with **information that improves the understandability of the products** not only for the vulnerable population but simultaneously for the general population as well. For example, by giving an explanation on how to change the language or subtitles in the video or play audio at a slower pace. The latter two examples would have had a rather large impact on both usability and understandability if not changed after testing. Therefore, a verification and validation process is recommended for development of products for a vulnerable population.

DIGITAL DIVIDE

During the FGDs it became clear that **digital communication has major implications for older people in society**. This became evident when most older participants were hardly able to find the products via a QR code, could hardly change the language of subtitles without help and were difficult to reach digitally. Moreover, participants had trouble indicating how to reach the elderly. TV and radio would reach the older population but a letter in the mailbox is not possible without knowing where older people live or what language they speak. Next to (foreign) television and radio, it became clear that middle-aged participants **often relied on someone else to keep them up to date with the latest COVID-19 information**. Think, for example, of their children, employer, house of prayer or GP. A positive node was the use of WhatsApp. This made it possible for older people to receive relevant information from family members or other intermediaries. Younger people seemed more able to receive or find digital information, use features in new products after minimal explanation and send it to peers.

INTERMEDIARIES

The digital illiteracy discussed above makes it clear that the elderly population is highly dependent on their social network (if available) or intermediaries (GPs, home care, ...). To a lesser extent, this also applied to middle-aged people. Not all participants saw this as a problem, on the contrary. Because they already receive information through intermediaries, multiple participants decided they did not need the information sent to them personally. Intermediaries appear to be a very important chain in reaching the vulnerable (older) population.

It should be noted that the non-Dutch speaking vulnerable people also **tend to receive information from foreign media or other sources from within their community**, for example an Arabic GP. This means they receive both information from abroad as from the Belgian federal government, which in some cases leads to fear, doubt and/or confusion (*“What should I believe?”*). It can be interesting to know which questions exist in these circles to adequately respond to them, which brings us back to the importance of testing.

TRANSLATIONS AND SUBTITLES

The **translations of the products were unanimously praised by everyone in every focus group discussion**. Some people were even surprised by the translation options of the video and asked if

there were more of such videos. People were in favour of more translations instead of less. This became evident when no subtitles were provided in the audio file.

2 FOCUS GROUP DISCUSSIONS: EVALUATING STRATEGIES WITH END-USERS IN BRUSSELS AND WALLONIA

2.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Brussels and Wallonia by **UCLouvain** in which focus group discussions were conducted with end-users of target groups to evaluate the COVID-19 communication strategy by the federal government and the accessibility of specific communication products. The communication materials used during the focus group discussions, were developed as part of the experimental product development phase of this project. See PART 2 for more details on this phase and see below for more information on the developed products for discussion in the focus group discussions.

This chapter is based on the content of the following project deliverable report:

Lambert, H., Le Boulengé, O., Doumont, D. & Aujoulat, I. *Internal report on insights of focus group discussions with vulnerable population in Brussels and Wallonia. Report on Work Package 3.* 30 November 2021.

Hélène Lambert and **Océane Le Boulengé** are equal first authors. They informed and recruited the participants, organized and moderated the focus group discussions, analysed the data, drafted the results and later finalized the report;

Dominique Doumont advised on recruitment of the participants, finalized the selection of materials, translated and adapted the interview guides, moderated the focus group discussions, contributed to the analysis of the collected material and critically revised the report;

Isabelle Aujoulat supervised the work at the different steps, drafted the methods section of the manuscript, commented on the analysis of the collected material, critically revised the draft report, and supervised its finalization.

2.1.1 OVERVIEW OF THE SELECTED MATERIALS PRESENTED TO THE END-USERS

Based on the results of the previous steps of the project, a set of newly created or adapted materials was selected by several members of the research consortium (see PART 2), and provided to the UCLouvain team to be used as a basis for the focus group discussions.

Based on prior testing of (similar) products during roundtable discussions with intermediaries of the vulnerable populations and a subsequent internal analysis and discussion, **a set of materials was selected to be tested** during the FGDs. These were:

2.1.1.1 PRODUCT 1: A VIDEO ON VACCINATION

This short video explains how the COVID-19 vaccine works; the information is provided using audio and subtitles in different languages as well as audio description and sign language.

This video was designed to let the user freely choose the language that is used to speak out the text as well as for the subtitles (see Figure 125 for an example). <https://www.info-coronavirus.be/en/vaccination-video/>



Figure 125 Print screen of the video on vaccination with Turkish subtitles.

Two versions of the video were presented to the participants during the focus group discussions. The first version was one with audio only and in the second, subtitles were also added. The language of the video depended on the public present in the focus group discussion. In the French-speaking groups, the video was broadcasted in French audio first, then with French subtitles. For the foreign-language speakers, the video was presented in the following way:

- At the Espace Citoyen de la Porte Ouest, where all the participants who took part in the focus group discussion were Turkish, the audio was in French and subtitles were in Turkish, as we did not have access to Turkish for the audio part;
- At the organisation SIMA, a first version in Arabic subtitled in Turkish was shown to the participants, as we did not have access to Turkish for the audio part and as participants were either speaking Turkish or Arabic. A second version was shown in Arabic with Arabic subtitles.
- At Proforal, where the participants were from numerous countries but spoke a medium amount of French (B1), the video was shown in French and the second version was in French with French subtitles.
- At the Espace Citoyen de Marchienne-Docherie, where the participants were from numerous countries but spoke little French (A2 level), the video was shown in French and the second version was in French with French subtitles. A version was also shown in Arabic as several participants in the room spoke Arabic.

It should be noted that we have encountered issues when trying to set the languages to the ones we wanted in some focus group discussions. For example, when we wanted to broadcast the video in Arabic, with subtitles in Turkish, during one focus group discussion, we encountered some technical problems. Indeed, although we did click on the Arabic language, it seems that the audio was set in Turkish. However, we did not have access to a Turkish audio when needed for a focus group discussion with Turkish-speaking participants.

Moreover, the video was not available in a downloadable version, which led to issues in regard of the broadcasting, when the internet connection was too low, for example. In a general matter, we had difficulties in accessing the video.

2.1.1.2 PRODUCT 2: A ONE-PAGE BROCHURE (INFOGRAPHIC) ON 3 ‘GOLDEN RULES’

In this one-page brochure, three basic rules regarding COVID-19 are recalled: (1) “Stay at home if you are ill”; (2) “Wash your hands frequently” and (3) “Keep a distance of 1.5 meters from other people”.

The brochure contains pictures and text (short sentences in Easy Language) and is available in different languages (see Figure 126).

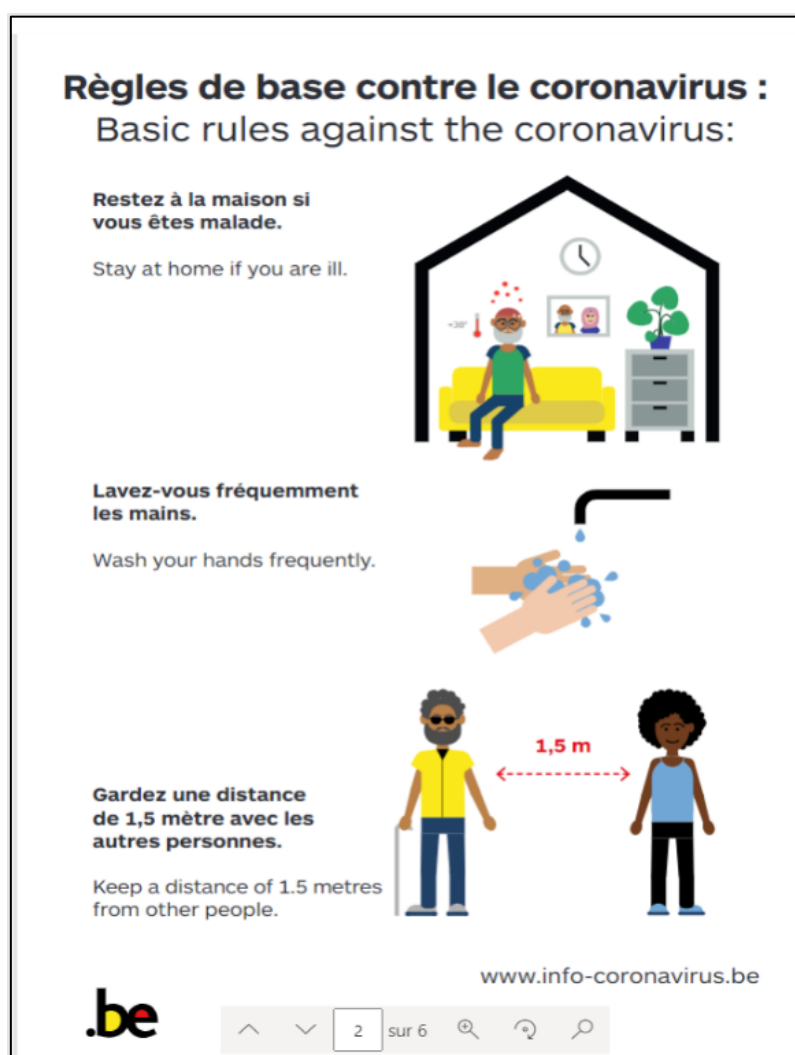


Figure 126 Brochure on golden rules.

2.1.1.3 PRODUCT 3: AN AUDIO FILE TO PRESENT NEW MEASURES

The **audio** file is meant to present new measures. The measures presented are about ‘home working’, ‘number of people for street gatherings’, ‘shopping together, etc. Two versions of the same message were developed and presented, one with a natural voice and one with a synthetic voice. It was created in different languages and presented with a still frame (see Figure 127) that includes the government logo, a picture of the COVID-19 virus, and a link to the federal website.

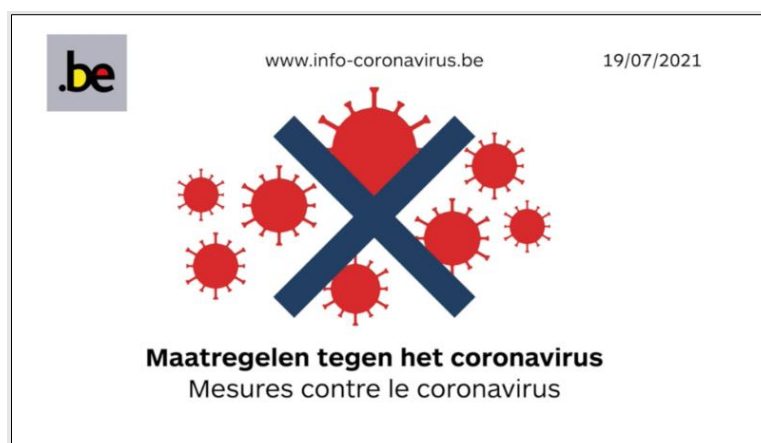


Figure 127 Still frame accompanying the audio on new measures.

2.2 METHODS

2.2.1 RECRUITMENT OF PARTICIPANTS AND SAMPLE CHARACTERISTICS

All along the project, a collaborative approach with first-line organisations in Brussels and Wallonia has been favoured by the UCLouvain team. The recruitment strategy of participants was therefore carefully planned with voluntary organisations, most of which had participated in the previous steps of the project, and accepted to be part of our advisory board (see Appendix S).

To that purpose, two meetings were organised with these organisations: a first meeting (10/09/2021) with organisations working with French and non-French speaking groups from disadvantaged socioeconomic backgrounds, and a second meeting (8/11/2021) with organisations working with groups with sensory impairment.

During these meetings, after an overview of the results reported on in PART 2, a discussion was held on how to proceed to successfully engage end-users from the different target groups in our focus group discussion. Our initial aim was to conduct four focus group discussions with vulnerable populations, two of which were to be held in Brussels, and two in Wallonia, with separate focus group discussions for French- and non-French-speaking end-users.

As a result of this collaborative process of setting up a recruitment strategy with the members of our advisory committee, as well as with other organisations we were referred to by our partners, **eight focus group discussions (FGDs) were held with a total of 58 participants between the 15/10/2021 and the 15/11/2021.**

These eight focus group discussions with French and non-French speaking people with lower socioeconomic backgrounds and poor health literacy were organised with the help of the following six organisations:

For Brussels:

- **Les Pissenlits asbl** (<https://www.lespissenlits.be/>) (Brussels) volunteered to organise a focus group discussion in Brussels with French-speaking people from disadvantaged socioeconomic backgrounds. This group also included D/deaf people ;
- **Entr'Aide des Marolles** (<https://www.entraide-marolles.be/>) (Brussels) agreed to organise a focus-group with French-speaking people from disadvantaged socioeconomic backgrounds,

- **Sima asbl** (<https://simaasbl.be/>) (Brussels) offered to organise a focus group discussion with non-French speaking people, representing the Turkish and Arabic communities;
- **Prorafal asbl** (<https://www.proforal.be/>) (Brussels) helped to organise a focus group discussion with people from different origins who speak little French as part of a B1 French course in Brussels. The languages represented in this group were: Spanish; Portuguese; Greek; Ukrainian; Arabic and Iranian.

For the Walloon Region:

- Through the city of Charleroi, member of the advisory board, contact was made with several **Espaces citoyens** (Citizens' Spaces), of which two responded positively to our invite. Each *Espace citoyen* organised 2 focus group discussions each: one with French speaking people from disadvantaged socioeconomic backgrounds and one with non-French speaking people.
- The **Espace Citoyen de la porte Ouest** (<https://www.cpascharleroi.be/fr/bottin-social/revitalisation-sociale-des-quartiers/espace-citoyen-de-marchienne-porte-ouest>) set up a group with representatives of the Turkish community
- The **Espace Citoyen de Marchienne-Docherie** (<https://www.cpascharleroi.be/fr/bottin-social/revitalisation-sociale-des-quartiers/espace-citoyen-de-marchienne-docherie>) gave us access to an existing multilingual group with people who speak little French (level A2), thus inviting us to conduct a focus group discussion with people with different languages: Italian, Ukrainian, Albanian, Arabic and Turkish.

For more information on these organisations, see Appendix R.

The characteristics of the focus group discussions are presented in Table 27.

The number of participants in the different focus group discussions varied **from four to thirteen people, with an average of seven**. Our initial aim was to have eight participants in each focus group discussion but we were not always able to control for the number of participants. Indeed, on the one hand, some focus group discussions were held with already existing “natural” groups such as French lessons or regular groups meetings. It was therefore not possible to reduce or increase the number of participants in these groups. On the other hand, when the groups were organised specifically for our research project, it was very difficult to anticipate how many people would join. Whereas some people never turned up, others would join without prior notice. Following the advice of our partner organisations', we opted for a certain flexibility to that regard, in order to not interfere with the organisations' usual activities with their public, and their wish to give people access to places where they feel welcome, comfortable and free of pressure.

Prior to the focus group discussions, in the preparation phase of the focus group discussions, a lot of exchanges (through emails and by phone) took place with the collaborating organisations, in order to prepare:

- The information to be sent out to the participants (directly by the organisations)
- The material presented during the focus group discussions so that they would be fully aware of what was going to be shared during the focus group discussions
- The check list of the necessary materials and specific requirements for the room (space, refreshments, audiovisual material, etc.).

It is to be noted that after careful consideration of possible implications, based on a strong suggestion issued by our advisory board and considering the socioeconomic vulnerability of the target populations and the efforts and time they would dedicate to the project, a decision was made to offer a voucher of 20 euros from a popular chain of supermarkets (Aldi). This voucher

was given to each participant at the end of the focus group discussions, and had not been announced before. It should therefore be considered a gift to thank the participants, and not an incentive.

In addition to the eight focus group discussions organised with French and non-French speaking people with lower socioeconomic backgrounds and poorer health literacy, as **we felt that the end-users with sensory impairment had been under-represented in the former roundtable discussions with intermediaries (cf. PART 3), we were aiming for an additional two focus group discussions with people with sensory impairment.** Those were organised with two of our partner organisations:

- **Aya asbl** agreed to organise a focus group discussion with people with hearing impairment from the Muslim culture;
- **La Lumière asbl** offered to set up a focus group discussion with people who were both blind or visually impaired AND deaf or hearing impaired (or deafblind people), as these doubly disadvantaged people had emerged as a particularly vulnerable group in the previous steps of the project, which was confirmed during our meetings.

It is to be noted that the results for these two focus group discussions with people with sensory impairment are not presented in this chapter, but are presented in a separate short chapter which highlights their more specific needs (see Chapter 3 in PART 4 of this report)

Focus group number	Number of participants	Spoken languages	General characteristics	Region	Products presented
Focus group 1	N=4	French	Belgian participants	Wallonia	Video in French with and without subtitles (in French); one-page brochure with text in in French; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 2	N=6	French	Belgian and non-Belgian participants	Brussels	Video in French with and without subtitles (in French); one-page brochure with text in in French; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 3	N=8	French	Belgian and non-Belgian participants	Wallonia	Video in French with and without subtitles (in French); one-page brochure with text in in French; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 4	N=9	French	Mixed group of people with and without hearing impairment (deaf)	Brussels	Video in French with and without subtitles (in French); one-page brochure with text in in French; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 5	N=4	Foreign-language speakers: Turkish & Arabic	Various countries of origin; A1 level in French	Brussels	Video in Arabic with subtitles (in Arabic and Turkish); one-page brochure; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 6	N=13	Foreign-language speakers: Iranian, Greek, Ukrainian, Spanish, Portuguese & Arabic	Various countries of origin; B1 level in French	Brussels	Video in French with and without subtitles (in French); one-page brochure with text in in French, Turkish or Arabic; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 7	N=5	Foreign-language speakers: Turkish	Participants from Turkish or Kurdish origin	Wallonia	Video in French with subtitles (in Turkish); one-page brochure with text in in French and Turkish; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it
Focus group 8	N=9	Foreign-language speakers: Italian, Ukrainian, Albanian, Arabic & Turkish	Various countries of origin	Wallonia	Video in French and Arabic with and without subtitles (in French and Turkish); one-page brochure with text in in French and several other languages; French audio in natural and synthetic voice with a still frame with a visual and the federal government's logo on it

Table 27 Summary and characteristics of the focus group discussions.

2.2.2 DATA COLLECTION

The data were collected through focus group discussions that were held over a four weeks period (from 15/10/2021 to 15/11/2021). The focus group discussion lasted between one and a half and three hours, with an average duration of 1h59'. While several focus group discussions had to stop after two hours because there was a strict timing to be respected, the timing for other organisations was much more flexible and some focus group discussions therefore lasted up to three hours. A short break was taken in the middle, often accompanied by biscuits and coffee, which allowed to create a convivial and relaxed moment, while continuously respecting the sanitary measures: the participants and moderators wore masks and stood at a distance of 1.5 meters from each other at all times, windows were regularly opened, hydroalcoholic gel and masks were made available.

Each focus group discussion was held in a place already known by the participants, in the presence of a trusted intermediary who facilitated the contact with the research team, allowing a relation of trust to be established. Each focus group discussion was moderated by two members of the research team, in the presence of the representative of the partner organisation. In three focus group discussions, an interpreter or language facilitator was also present:

- At Espace Citoyen of Marchienne Docherie, a French teacher facilitated the focus group discussions and we spoke English with some participants.
- At Espace Citoyen de la Porte Ouverte, a Turkish interpreter was hired to do the translation.
- At SIMA asbl, an Arabic translator was hired to do the translation with the Arabic participants. We had planned to have an interpretation in Turkish made by the teacher of that group but were notified of her absence at beginning of the focus group discussion. We therefore used an online translator to communicate with the Turkish-speaking participants in this group.

At the beginning of the focus group discussion, the objectives of the study were explained orally to all participants. For the focus group discussions with people who spoke little or no French, the objectives of the study were either retranslated when there was an interpreter (FG 5, FG 7, FG 8) or explained in simple terms by the group's French teacher (FG 6). Participants were asked if they had any questions after this explanation. If they had questions, those were answered and we made sure they understood our answers. Before recording the session, the oral consent of each participant was sought. In addition, after the session, a form re-explaining the objectives of the study and giving the contact information of the UCLouvain team was distributed to each participant.

The focus group discussions were conducted according to a standard interview schedule developed by Thomas More⁵⁵ and provided to the UCLouvain team, who translated and adapted it into French (see Appendix Q). The interview schedule comprised three phases:

In the **first phase**, after welcoming the participants and informing them of the objectives of the focus group discussions (FGD), we asked a **few general questions** about how the participants would usually get information regarding the COVID-19 health crisis. Sample questions include:

⁵⁵ Sarah Talboom & Wessel van de Veerdonk

"How do you usually receive information?"; "Which are your preferred communication channels?"; "What makes you trust (or not) the information you receive?", etc.

In a **second phase**, we presented to the participants the **communication products**, i.e., the video, brochure and audio that had been specifically created and/or adapted for this phase of the project.

For each product, the participants were asked to give their opinion about it. Hereafter are some sample questions that were asked to the participants:

- *"What do you think of this video/brochure/audio? You may really say anything you think of it. There are no good or bad answers."*
- *"Would you share this video/brochure/audio with you relatives?"*
- *"Could you understand everything the person was saying?"* (audio)
- *"Was the video good, too slow or too fast?"* (video)
- *"Is the text in the brochure clear? Are the chosen images clear too?"* (brochure)
- Etc.

We strongly relied on the topic list developed by Thomas More (see Appendix N) to conduct our own focus group discussions. However, not all planned activities could be optimally conducted. For example, after watching the video, the participants were asked to search the website (www.info-coronavirus.be), for the video they had seen. Unfortunately, we quickly realised that not all participants had a mobile phone or tablet, and most of those who had one were not able to either access the website or locate the video on the website, due to a lack of numerical competence. Moreover, after watching the video, participants we supposed to receive the shots of the video on paper and circle positive aspects in green and negative aspects in red. We quickly realised that the participants had already given that information orally while answering our questions. This activity was therefore adapted.

Several other specific tasks were performed during the focus group discussion:

For example, after the presentation of the brochure and the exchange with the participants, each participant was asked to indicate in red on the brochure what was perceived as difficult to understand (in terms of images, words, sentences, figures, etc.), and in green what was easy to understand.

During the discussion around the audio files, the participants were also invited to react on the still frame that represented the virus COVID-19 and the federal government's logo.

At the end of the focus group discussions, participants were requested to rank the three communication products according to their preferences, and explain the reasons of their choices.

The discussions were recorded and transcribed at verbatim, with the help of a student.

2.2.3 DATA ANALYSIS

As a first step of analysis, the two members of the team who had moderated a focus group discussion would hold a debrief just after, in order to exchange ideas on what had been discussed during the focus group discussion. In order to keep track of these ideas, a short synthesis of the focus group discussions was drafted right after they had been done. This allowed us to identify some recurrent themes and transversal issues across the focus group discussions, that constituted a start-list of themes for the analysis.

In a second phase, the transcriptions of the focus group discussions were coded on the basis of this start list, while additional themes were allowed to emerge inductively. The themes thus extracted are illustrative of the content of the discussions in relation to the research questions:

1. How does the federal government's communication about the COVID-19 crisis reach different target groups?
 - Facilitators and barriers encountered
 - Preferred channels
 - Credibility of various data sources
2. What are, according to the end-users, the accessibility and perceived usefulness of different adapted communication products? More specifically:
 - The video: clarity of the video; preference for the video with or without subtitles; opinion about the images; channels through which it could be distributed; ...
 - The brochure: clarity of the message; opinion about the images; opinion about the translated text when relevant; channels through which it could be distributed; ...
 - The audio files: clarity of the audio files; preference between natural or synthetic voice; opinion about the still frame and the federal government's logo; channels through which it could be distributed; ...

2.2.4 ETHICS

Prior to recruiting the participants for the focus group discussions, **ethical clearance** was sought for all partners by the coordinating team (Prof. dr. Mieke Vandenbroucke, UAntwerpen) from the Ethics Committee for the Social Sciences and Humanities (EASHW) at the University of Antwerp.

The activities for the focus group discussions conducted in Work Package 3 received a positive clearance under number SHW_21_77. In accordance with an addendum to the ethics protocol outlined in the EASHW application for these activities, participation in the focus group discussions proceeded with **oral consent**, and the names of the participants remained unknown to the research team.

The UCLouvain Ethics Committee was informed of the project. As this project does not fall under the Law of 2004 regarding Human experimentation, the ethical clearance received from the UAntwerpen ethical committee was deemed sufficient, and no further approval was sought on the French side of the research activities.

2.3 RESULTS

The results are presented hereafter according to the two questions investigated during the focus group discussions: (1) *How do people with low socioeconomic background usually access the communication?*; and (2) *What are their thoughts and opinions about different forms and products, more particularly the tools newly developed or adapted by the project consortium?* In every section the results are first presented for the French speaking participants, and then for the non-French speaking participants.

Our findings are illustrated with citations from the different focus group discussions, where **P** stands for *participant*, **M** for *moderator*, **I** for *interpreter* (if present), and **O** for *observer or co-moderator* from the partner organisation where the focus group discussion was hosted.

2.3.1 FLOW OF CRISIS COMMUNICATION AND CHANNELS USE

2.3.1.1 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH FRENCH-SPEAKING PARTICIPANTS

A. FACILITATORS AND BARRIERS PERCEIVED BY FRENCH-SPEAKING PARTICIPANTS

A major difficulty encountered and mentioned by many participants was the **very large amount of information circulating**. This information was sometimes perceived as **too complex** and with too many contradictions, leading to feelings of “*getting lost*”. The participants highlighted that this would exacerbate their anxiety and frustration, which was already present.

- P: *What is to be taken? What is to be left? Is this one wrong, is the other right? It's really, really complicated. It's very difficult. (FGD 1)*
- P: *They (the experts) didn't agree at all with the information they were giving, so we were a bit lost. Because one says one thing, the other says something else and the channels... you'd change the channel and find another information that would contradict with the previous one. (FGD 2)*
- P: *Too much change, too much at once, too irregular, it is a case of neither yes nor no*

In relation to the vaccine too, different opinions on the vaccine, there is a lot of change, a lot of change in the opinions (FGD 4)

According to some participants, information has become **increasingly confusing over time**, in particular with the frequent change of measures.

- P: *At first, I felt it was quite clear. But then, once... then anyway, it was clear, you're at home, confined, everything is closed, you're not at work, you can't see anyone. Clearer than that! But afterwards, once we started to open up again and this bubble thing, I couldn't find my way... It was a bit like seeing four people, then three, then two and a half. (FGD 1)*
- P: *So, sometimes we'd get a lot of information... from the television, from the newspaper and all that, and then sometimes... it depends, maybe it's not that... we'd wait for the Codeco. At some point it was almost every Friday like that: we listened to everything (...) but then we'd ask ourselves a lot of questions, we'd find that there were things that don't make sense at all (FGD 4)*

The issue of vaccination was spontaneously addressed in every focus group discussions, and people were very critical, both about the way the information was conveyed to them, and about the credibility of the information, leading to feelings of confusion:

(...)

- P: *For me it's not clear (the information on vaccination).*
- P: *It's not clear*
- P: *It's not clear.*
- P: *Well, people are persuaded to be vaccinated but at the same time, yes, even if you are vaccinated, you will catch COVID-19 and you can contaminate others.*
- P: *Yes.*
- P: *So what's the point of getting vaccinated? (FGD 3)*

Another important source of confusion were the **differences between the different regions** in terms of measures to be applied. People were aware of different levels of decision power in Belgium, which made things very difficult to understand for them.

P: Because the government says one thing and the municipalities say differently. (...) They should be a bit more honest and a lot more correct rather than saying "that for some, that for others", and every time it's mixed up. Here, on the other hand, from 1 November, here, in Charleroi, well in Hainaut, the health pass is compulsory, it's only from 1 November. In Brussels, it's already from today. I say to myself, there's no point, I don't know, they should be much clearer. (FGD 1)

P: Every morning, I hear on the radio, "ah at the Flemish, we took the decision, that", "here, in Wallonia, we took the decision that". It's the same country, Belgium, why can't we agree, there is a system. (FGD 3)

The role of helping agencies and support organisations, such as those that helped organise the focus group discussions, was highlighted as playing an important role, in allowing people to meet, express themselves on their experiences, get access to information, discuss and debate, in order to sort out what is true and false and develop their own opinion and make their health and prevention related decisions:

P: We listened to everything but then we had to sort it all out. That's what I tried to do but it wasn't easy. (FGD 1)

O: I would just like to recall that we held a session here at the medical centre on the question of the vaccine because we felt that there were many questions and we thought that it was very important to be able to talk about it freely and discuss the perceived advantages, disadvantages etc. and we will certainly hold another one in two or three weeks' time so if you are interested in being able to discuss this with doctors and professionals, with nuanced opinions as well.. well, welcome. (FGD 1)

As during periods of confinement these spaces were closed, several participants recalled that they **had been very isolated** at the beginning of the crisis, with a lack of social contacts, and how distressing it used to be:

P: At the time, I was locked up at home, so I didn't see anyone. (...) And at that time I didn't have my little dog so I was totally alone. (FGD 1)

Faced with an excess of information and contradictions, some participants reported to have developed general feelings of discontent and distrust which **would lead some of them to turn to fake news**. In many groups, some participants⁵⁶ claimed that **the population had not been told everything or was being 'manipulated'**, clinging to conspiracy and anti-system theories. In a context of uncertainty, **some fake news which denied the existence of the virus would appear as more reassuring to some, or at least more accessible**. On the other hand, fake news would also contribute to increasing their feelings of anxiety.

P: As Anne Roumanoff would say, "They don't tell us everything! I have that impression.

P: I say that all this was provoked.

(...) As if it had been done on purpose by states that got together, that... "We're going to release a virus", but I think they regret it because apparently, they never thought it would take on such proportions, such a dramatic development. (FGD 1)

⁵⁶ It should be noted that not the majority of the participants reported to believe in such theories, but they were nevertheless quite numerous.

P: (...) Vaccines are invented now, they tell you "we're putting poison on you, we're going to kill, we're going to eliminate because there are a lot of people, we're going to eliminate people", and if we start listening to that, we don't get to sleep anymore. (...) (FGD 2)

Nonetheless, some participants who might sometimes believe in these disinformation contents, **knew at the same time that untrue messages were circulating**. Some participants mentioned that some people transmitted fake information while everyone was living in a context of fear because of the unprecedented situation we were facing:

P: In fact, at the beginning, people didn't just listen to TV, there are people who come out of Facebook, there are messages via WhatsApp, there are things that need to be done...

[several people]: Yes, yes. (FGD 3)

(...)

P So, if we only follow one, that's fine, we'll be a bit correct. We're going to listen to a lot of people who are saying things that aren't even true, thus taking advantage of the fact that everyone was afraid. (FGD 3)

It was also mentioned that some people who initially turned to fake news began to believe more in the reality of the virus once they experienced sickness or loss around them or in their communities:

P: When COVID-19 came to Belgium, well, at first it was false, but then there were relatives who had Covid, who were even hospitalised because they needed respiratory assistance to help them, and there was this information. Some of them circulated in the communities and said, "Oh, look out, so-and-so in our community has it" and that was that. That's how I perceived the information. (FG 2)

P: Actually, there was one thing too, there was one thing too. There were a lot of people who didn't believe that it was Covid. They thought it was a thing...

P: Invented.

P: Yes, invented.

P: Until now people don't think it existed

P: No now it's ok because a lot of people who have encountered in their family someone who got sick, who died or something like that. (FGD 3)

Finally, it emerged from these focus group discussions that **a significant proportion of the people we interviewed declared to no longer actively seek information** today. Some of them would even avoid all information related to the COVID-19:

P: Now, yes, I don't listen anymore. (FGD 1)

P: At a certain point, we didn't want to. I'm talking about myself, at a certain point, I didn't want to hear anyone, I told my daughters, my relatives "Don't talk to me, don't talk to me about this anymore... We couldn't keep up with the events, the news, it was too much, too much. It was too much, too much. We became depressed to see all this because the confinement was very, very hard for everyone. It was things that fell from the sky from one day to the next, we were confined to the house, nobody saw anyone except on the phone and sometimes even on the phone, we thought "they're going to tell us something more...". (FGD 2)

P: We have enough for the COVID-19 information.

P: Yes.

- P: Every time, we put here the television, everywhere in the radios, any radio.
- P: Everywhere (FGD 3)
- P: When I hear, I pay attention to what is being said. I don't look for information but when I hear it, I listen to it. (FGD 1)

It should be noted that the pandemic situation has been very difficult for this public, leading to deep psychological distress and increased anxiety:

- P: But already at the beginning, it was frightening because it was as if there was, come on, something that had fallen on us like that, so everyone at home, we can't go out anymore. That was enough to make a lot of people panic. I tried to put it into perspective but it was still shocking. (...) (FGD 1)
- P: (...) when I heard the first people in Belgium who had Covid, I was at home all alone, I shouted because in my head I said to myself that it was never going to happen in Belgium (...) And afterwards, it was hard to be confined. It was just house, shopping and not so much people, when people passed in the street, I would go on the other side. There was fear. When I went to work, I used to keep meters of distance with others. At that time, when someone took the lift, I would avoid her. And at home when I'd come back, I would straight away go and wash my hands, wash myself... every time I'd go out, I'd get the jackets washed, I was panicking. (FGD 2)
- P: (...) And then, when I went to the window, it was sad to see the empty streets. It seems like there's not a fly in the air, it's so quiet. And that made me sad, I said "it's the end of the world, what is it?" it's not possible to live like that. (FGD 2)
- P: Yes, yes. It's in the newspaper where I... Even today, because from the beginning, you see, they started as the lady said "Everyone was afraid, all the buses were empty, the metros were empty", (...) there was the telework system that we didn't know about, there was the problem of children studying at home, there was the problem of failure for the children, there were "what", "what", "what" and all that, it also really made everybody depressed. And you have girls who committed suicide, I don't know, in Liège, I don't know, and there you have it (...). (FGD 3)

We were struck by the large number of testimonies we received from people expressing their **psychological distress** without this being the subject of our discussions. This situation would probably have led some people to **stop looking for information or to avoid it because it contributed to their psychological discomfort**.

B. CHANNELS USED BY FRENCH-SPEAKING PARTICIPANTS TO ACCESS INFORMATION

After having collected some testimonies on the general barriers encountered by participants in accessing information, we asked them through which channels they would mainly get information.

In general, participants in the focus group discussions mentioned that since the beginning of the crisis, they had been informed **mainly through the television** and in particular through news broadcast and press conferences, as illustrated hereafter.

- P: At home, it's a lot of television. For me, at least, I listened more to television, especially the press conferences, that was when the information that was going to change our lives was going to be given, both personal and professional and educational for my daughter, so that was really when I would pay attention. (FG 1)
- P: The newspaper, for example. The RTL news.
- M: And you, sir, the TV?
- P: Yes, and the news.

- M: On which channel?
- P: The first ones.
- M: Ok, so the French one.
- P: La Une.
- M: Ok, ok.
- P: RTL.
- P: Yes, RTL too, yes. (FGD 3)

Although regional channels were mentioned most often, local channels, such as *TéléSambre* in Charleroi were mentioned by some.

The information received through the television, mediated by images, was perceived as very impressive and scary, and was still well recorded by some participants many months later:

- P: (...) And then, still on television, it was really precisely those images in Italy, we saw the cadavers, the people, the line-up when they were in the hospitals, when they announced the numbers of deaths. In fact, the stress began to increase at that moment, when they started to say without, the problem without explaining that in fact it was people who were 89 or 92 years old, comorbidities and all. (FGD 2)

Social media -including Facebook, Twitter and YouTube – were also mentioned among the main sources of information, yet after television, especially by the participants of the focus group discussions held in Brussels:

- P: Every day we talk about it anyway, on TV or on social networks, it's "Covid, Covid". (FGD 1)
- M: And the information about Covid, where do you get it from? On television, in the family?
- P: On television or we watch on social networks. (FGD 2)
- P: We had a very, very, very difficult time and how we found out about it was through, it was through Facebook. (FGD 2)

Although this was not the majority, some participants reported actively searching for information through social networks and **internet**, and precise examples were highlighted.

- P: Actually, I went to the sites and I also went to what do you call? The online sites. Because when I type in "Covid" on Google, well there are sites that give information, what do you call it? On the nature of the virus, and so on and so forth and up to the mutations when the mutations started, they still gave explanations on the nature of the mutation, they tried a little bit to specify each virus because there was not one, that's how I perceived it, so I'm talking about the internet, social networks, Facebook in particular.
- M: Right.
- P: Because, there, there are a lot of people who share things... all over the world, everyone was giving their impressions. And then on YouTube, because now there were broadcasts of certain research or certain researchers, particularly with the French doctor, Mr Raoult, Dr Raoult who really made a big debate of it, especially now when it came to the use of chloroquine and so on, and there was a lot of information circulating on COVID-19 and so on. (FGD 2)

By contrast, many participants, especially among the older participants in the groups held in Wallonia reported to **never search for information on the internet by themselves, but to receive it passively** (without looking for it):

M: You just said you receive the information on Facebook. Do you subscribe to certain pages on Facebook?

P: No, I just do. (...)

P: It just comes like that. (FGD 1)

The question of whether they knew and used the website www.info-coronavirus.be was asked in all focus group discussions. It is to be noted that only one participant from all the focus group discussions reported to know about or have visited the website www.info-coronavirus.be.

Faced with the **digital divide**, many participants also reported to **rely on others instead of searching for information by themselves**, for example their children or community peers that would show them information on social networks or the internet:

P: Yes, my daughter in relation to the side effects, social networks... she looks a lot for information and all that, that's how I inform myself too, yes (FGD 4)

However, it was obvious during the focus group discussions that in addition to lacking sufficient numerical literacy, some of the participants had little or no access to digital technologies and the Internet. These would keep informed mainly "through the radio or through a friend" (FGD 1).

M: And now if we take the audio, the video and the brochure, what would you prefer if you had to classify them in 1, 2, 3, which one would you prefer, the second one and the one you liked a bit less?

P: The clearest is the video. That's the easiest one.

P: For you

P: Yes, for me, yes.

P: Yes, but as you don't have a phone.

(...)

P: No but I have good friends [laughs]. (FGD 1)

Older people, and possibly those living in Wallonia, tended to report more frequently to not have access to digital technologies and the internet, or to use it passively.

To make up for this, some would read the **newspaper** to get informed:

P: But at that time, I said to myself, I should always read the newspapers to find out more, to find out the truth, because there were consultation committees that were supposed to be held every week or month, and after the consultation committee, the government reacted in another way. I said to myself "what is this, it's completely the opposite", it was contradictory.

M: So you took the newspaper then, to read?

P: Yes, yes, yes, yes, yes. (FGD 3)

Information also tends to be shared by word of mouth, **within families and wider communities**:

P: But what happens is that there's always the information, which I notice in general, a lot of people, it goes from word to word, mouth to mouth. And I would hear conversations "You used Pfizer" and people don't go to the website but it really spreads by word of mouth. (FGD 2)

It was also frequently reported by many people that they get information from their **general practitioners** or in **their living environment**, such as at work, at school and via certain organisations, including those in which we organised the focus group discussions:

P: I would say that I knew about it first of all through information on TV, then through the internet and also through my doctor here in Les Marolles who, what do you call it, gave me a lot of information that was in his possession because at that time there was not yet an effective knowledge of COVID-19 but the little information that existed. That's how I got informed and afterwards it was at school because we had to pay attention to not be too close to each other, at the level of the students (FGD 2)

C. TRUSTED SOURCES OF INFORMATION

Amongst these different information channels, participants in the focus group discussions mentioned that **they trust some information sources more than others**.

The participants indicated that they trust **the professionals** with whom they are in contact via the organisations that hosted the focus group discussion and whom they meet regularly:

M: What about someone from the Espace citoyen for example?

P: Oh yes, that's good, that's for sure [laughs].

(...)

P4: You're honest, you're sincere [talking to the facilitator of the organisation]. (FGD 1)

Their GP was also considered to be trustworthy by many participants:

M: And, were there people you trusted more than others, people who gave information that you trusted more?

P: I trust my doctor. (FGD 2)

As illustrated hereafter, discussions with their general practitioners tend to be particularly appreciated when the GP does not try to convince people but rather to give them the objective information that supports their decision-making processes.

P: And I have a really good relationship with my GP and I felt confident in the dialogue I had with her and I didn't feel that she was persuading me, I felt that, in the exchange that was going on, I said to myself "OK". (FGD 1)

Some participants also mentioned trusting their families in their countries of origin:

P: I trust my doctor and my family in Africa. (FGD 2)

Some participants reported receiving advice from their families back home, including their parents, grandparents, uncles and aunts.

Then, most participants said they trusted **experts**:

M: Who do you think should give this information? Who would you expect the truth from?

P: The researchers. (...) Great doctors. (FG 1)

P: *I trust experts, if an expert says that we should do this, I trust him. If you don't want to trust an expert, who can you trust? (FG 2)*

M: *So you have more confidence in what the epidemiologists say?*

P: *Exactly, because that's their field.*

M: *Okay.*

P: *Me too, me too. (FGD 3)*

However, although the word of the experts would be considered trustworthy, the fact that they would frequently contradict each other contributes to a certain feeling of being lost in the flood of information:

P *(...) But I trust the specialists more than the politicians, that's all. (...)*

P: *There are some who say the truth. There are some who say the opposite to the other. Sometimes there are experts, researchers, one says one thing, the other says something else. (...)*

P: *At some point, experts, yes virologists who have done studies etc., every day, yes after the CST it's not good" and others will say "yes, it's good" and so they contradict each other and so it's not good either, instead of having, how to say, the same way, approach, but every day they change a little bit. Afterwards, I find, they lose a lot of credibility and to impose this... (FGD 2)*

While some participants said they had more or less confidence in policy makers, many more said they did not trust them:

M: *(...) And what about the information that the politicians give?*

P: *Personally, no.*

M: *No.*

P: *I do. You have to trust them. (FGD 2)*

M: *Do you still trust some people?*

P: *For politics, no.*

P: *Mr and Mrs, minister, anyone, they all have a family, so why saying anything or everything... They should be honest and at the same time they will be honest with themselves. (...)*

M: *Don't you think they were sincere?*

P: *Were they at least telling the truth?*

M: *You don't trust them then?*

P: *No, no, frankly, I don't know. I think it's still a state affair, frankly. The government likes to scare people. (...) Well, my opinion is that the state, frankly, is playing with people.*

M: *And why do you think that is?*

P: *Why? Why do they do that? That's a good question.*

P: *For money maybe.*

P: *Probably money, (...) (FGD 1)*

P: *But at the time, I said to myself, I should always read the newspapers to find out more, to find out the truth, because there were consultation committees that were supposed to be held every week or month, and after the consultation committee, the government reacted in a different way. I said to myself "what is this, it's the complete opposite", it was contradictory. (FGD 3)*

This last extract from a focus group discussion illustrates the need for some participants to compare and contrast several different pieces of information, including comparing the information given by politicians with other sources of information.

According to some participants, politicians have adopted an **increasingly injunctive and paternalistic discourse** - putting pressure on the population - which has harmed the trust placed in them. The words relayed in their speeches were considered less and less honest over time. Moreover, their discourses and tone of voice were described as distant, too ignorant of the realities of the lives of this target audience. One participant mentioned that the information given had become dehumanising.

P: It's something that was heavy, that had difficult social, human and psychological consequences and I found that the more we were progressing in the crisis, the less human they were in their speeches and I would have really liked more benevolence, empathy, humanity, dignity and humility. As you say very well, you may be Prime Minister, but you are still a human being. I found that the distance that was set did not facilitate communication, that if they put more humility in their speeches, for me, I would be more inclined to listen to a speech even if there are restrictions etc. if it is said with dignity and humility. (FGD 1)

P: But I think that, generally speaking, there is a lack of information. It's badly explained, many things are done unilaterally, the government takes decisions that are applied, without thinking of asking... (...) It's much more like injunctions than good information. (...) (FGD 2)

P: (...) Afterwards, one (name of minister) goes to the front and says "You're all going to die if you don't get this vaccine". No, he gives global information, no, it's not because we don't get the vaccine that we'll die and he's ruining himself by saying "Yes, you'll all die, you don't get the vaccine" and putting pressure, so I think they're already losing a lot of credibility. There is also (name of minister), who is also saying "Yes, now you will put the mask on even at home". On what scientific evidence? (FGD 2)

2.3.1.2 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH NON-FRENCH SPEAKING PARTICIPANTS

A. FACILITATORS AND BARRIERS EXPERIENCED BY NON-FRENCH SPEAKING PARTICIPANTS TO ACCESS COMMUNICATION

Most participants in the focus group discussions mentioned that **some aspects of the information they encountered were tedious and lacked clarity**. For example, one participant mentioned the number of new positive cases that had been detected that day and said they had no idea if it was a large number or not:

*M: Okay. And do you find that this information that you see is clear? Does it seem easy to understand and do you understand everything you read or hear?
[...]*

P: Not always.

M: Not always? What doesn't seem clear to you?

P: I think for example today there are nine thousand cases a day. That's a lot? (FGD 6)

The information about vaccines and vaccination was perceived as particularly unclear:

M: In relation to COVID-19 in general, in relation to the measures, did it seem pretty clear to you? And did you trust the information?

I: "No, that's why I asked that question" [...] So it's a bit mixed. In fact, it's a bit mixed because she says "yes, as far as the mask and the distancing and all that is concerned, yes, we're getting used to it" but what we have now is that there are vaccinated people, non-vaccinated people and so I think that she didn't get vaccinated. She says "I didn't get vaccinated", well, there are some who didn't because they have questions about it because she also says "people who are vaccinated also get sick again" and so it's a whole series of questions that they ask themselves and that's it. (FGD 7)

According to participants, a lot of **contradictory information** were circulating:

P: People say one thing after another, after another.

P: That's it. It's not... Everyone says what they say, what they think, they say.

*P: Even the newspaper, it's the same.
[...]*

P: One paper says one thing, the other paper says something else.

P: Everyone says what they say, you hear the children it's another thing, the TV it's another thing, the people outside it's another thing. (FGD 8)

This important amount of information, especially when it's conflicting, leads to a feeling of being lost, according to some participants:

P: I feel lost sometimes. One week the contamination goes up and the other day it goes down, then I don't understand.

M: You are lost, are the others also a bit lost with all the information? Do you think there is too much?

P: Yes.

P: Yes.

M: Yes, there's too much information?

P: Yes.

P: Yes. (FGD 6)

The news on television was said to be perceived especially confusing when the messages would change from one week to another. The measures taken by the federal government were said to have changed very often since the beginning, and even more so since the vaccination campaign had started.

Most non-French speaking participants reported to find it difficult **to distinguish what is accurate from what is false** in the various messages they have access to.

P: So, here, he says for example, yes indeed we receive a lot of information, but no certainty. We hear but we try to find out but on Facebook, we'll see that, the other neighbour will say that, your family says that, and we don't know what's true and what's false. We get the information but we don't know. (FGD 5)

In this context, some participants reported **feeling overwhelmed by an overflow of unclear information**, which led them to **panic about the situation and develop anxiety** and a fear of the future, not knowing how things were going to evolve:

At the beginning, it's clear that I was a little frightened, I was afraid like all of humanity, we'll say, the fact that, it was something, well, I never heard of it, there you go, I was afraid". And the fact that we were also confined, that we could no longer see the future, etc. We were a bit in the dark and..." [...] "I was afraid, like all of humanity, of the fact that it was something, well, I never heard of it, that's all. [...] "I started to have fears about the future, about health etc., that's it, because we've never been confined like that for anything before. (FGD 7)

As a way to get to understand the information better, non-French speaking participants reported that they tend to **compare the information from different sources, including sources in their mother tongue and sources in French**.

*M: So, do you rely more on people who speak Russian or Ukrainian to understand the information?
P: Yes, it's better because sometimes I don't understand well the information that is in French, I prefer to see the information in my language and then I compare (FGD 6).*

However, the focus group discussions held with non-French speaking participants led to the conclusion that **there is an "overflow of COVID-19"**. Some participants reported to **have come to stop actively seeking information with time**, whereas this was not the case at the beginning, when people were more interested in getting information, comparing information and forming their own opinions. But with the increasing complexity of the information provided, and the weariness that set in, some people would have given up and stopped looking actively for information by themselves.

Some of the participants even reported to now flee everything that is Covid-related due to the anxiety this topic brings up for them, as the situation has been extremely difficult for some participants:

*M: And, as a result, right now, now, after almost two years.
P: I'm sick of it [laughs].
M: Are you still looking for information about the Coronavirus or about the measures or is it over, do you have... ?
P: I'm done, for me it's over because I'm fed up, I've given up.
M: And the others, are you also fed up, have you also stopped?
P: Yes.
P: Yes. (FGD 6)*

Examples of irrational ways of thinking and acting at the beginning of the pandemic due to the lack of understanding of what was going on were recalled.

I: It's like the people who immediately ran to the stores thinking that there was nothing left to buy because we were in doubt, we didn't know, we were a bit in the dark [...] And afterwards, there were times when I didn't go out of the house, even for a week etc. But, there you go, we tried to do cures too, I don't know, ginger or something, well, a whole series of cures, vinegar etc. [...] When we went out at the beginning, outside we didn't dare touch anything, and so on. (FGD 7)

In this context, **access to good information**, including information from experts, would have given participants a better understanding of the situation and **reassurance**:

I: And afterwards, when people got information from television or from doctors or scientists etc., people were able to think a little more soundly, more logically we will say. (FGD 7)

On the contrary, **other types of information**, including impressive images conveyed through the media, would have **induced feelings of fear**:

I: At the beginning, yes, in fact, I also think that the media really scared people, well, we were scared because we also saw on some media a person who fell on the ground all of a sudden like that etc. and so it scared us a little. But at the beginning, when I went shopping, I used to leave the groceries for three days before eating them or using them, every time it was the same. But then, there you go, but it's true that at first it was pretty scary. Well, I think we were also scared. (FGD 7)

Some participants nevertheless mentioned that they got **accustomed to the situation over time**, thus reducing their feelings of fear and allowing them to return to a slightly more serene life:

I: I don't know what to say, I think we've also gotten used to the situation. [...] I think we've gotten used to it too, because when we're told about Covid, it's a little scary, but when we talk about viruses, it's a little less scary. (FGD 7)

B. CHANNELS USED BY NON-FRENCH SPEAKING PARTICIPANTS TO ACCESS INFORMATION

The people we met during our focus group discussions reported to get their information from various sources: internet, television, social media, as well as through significant others and acquaintances. **The preferred channels seem to be the television, followed by social media.**

I: Yes, at the beginning, yes, through television because it's true that it's easier to watch television than to go and do research and so, at the beginning, yes, it was by watching television. [...] Yes, just a little bit on the internet to see what kind of disease it is. But most of the information comes from the television. (FGD 7)

*M: Before I start I'll maybe just ask you, since the COVID-19 crisis started, how have you been getting information? What have you done to find out about COVID-19 and what to do and what not to do?
[...]*

*P: I look at a group on telegram
[...]*

M: Okay, on telegram so news groups on social networks, right?

P: Yes.

P: It's an Iranian network. (FGD 6)

In relation to the measures to be applied, the **press conferences** about the new measures against Coronavirus on Belgian channels were considered particularly important. The participants reported to feel the need to know about the measures they need to follow in their country of residence. They reported to also seek information about the measures through the news. However, it was mentioned that **the speech rate is sometimes too fast on television when it is in French.**

When it comes to understanding more specific information or details such as how the virus or the vaccine work, the participants reported to often turn to the channels in **their countries of origin, rather than** Belgian television channels. So, different types of channels are accessed, depending on the type of information that is sought.

M: So, since the beginning of the crisis, how did you get information?

I: By the people around us, and also by the television, here, by the TV here, which we were able to understand but obviously we also watch TV or channels in Turkish and so we were informed. [...] Yes, so on Turkish channels there are obviously a lot of, well I'll say, programs and things or scientists etc. who are doctors and so they listened to all that at the beginning, that's it, they got informed like that so there are some who also explained how to eat etc., well, all sorts of things and so we followed that a little bit. (FGD 7)

M: And with the Belgian television or with the Turkish television?

I: He says "since I don't speak French very well, even though I understand it, in fact, in relation to the measures etc. because it was in Belgium, in relation to the sanitary measures, of course I watched, I listened to the Belgian channels, but in relation to the disease itself and to know a little bit what the disease was, there, I watched the Turkish channels". (FGD 7)

In a focus group discussion with people from different origins who spoke a little bit of French, one participant explained that she/he would only watch Belgian television, in order to stay informed about what happens in the country where she/he lives, and on the other hand because the information coming from their countries of origins seemed is sometimes too alarming.

P: They all have the same formation. It can be in English, in Albanian, in Italian, but it's always the same word, in different languages. It's useless to go, as I'm an Albanian, come on, I don't want to follow the Albanian newspaper. As I live, here, come on, I'm obliged to see what's going on here.

(...)

P: French because if I hear the one from Albania, it will make me sicker [laughs]. I prefer not to. (FGD 8)

As far as **social media** are concerned, **the participants reported to “follow” groups in their own language**. When they receive information in French, online translators are used to translate it. These online translators or applications are also used for everyday communication. In the focus group discussions that were held without an interpreter because the participants were from different origins and knew a little bit of French, translator applications were used by the participants who would ask us to write into their translator the words or sentences they did not understand.

P If I don't understand something, I can look it up in my translator, for me it's better. (FGD 6)

M: I will also read what X said, for X who is going to retype, we have two Turkish-speaking people and no interpreter, and so we communicate with Google translation in writing, so, that's why, I will read every time what was said. (FGD 5)

A minority of participants declared to also get the information **through the government's COVID-19 application**, Coronalert.

P: Facebook too, Internet. Coronalert (FGD 6)

Our focus group discussions revealed **the important role played by their relatives** to communicate with this specific public. **Some people often had to rely on their children** to understand what was happening.

M: And how did you personally get information?

P: For me, it's the TV, the kids, more the older ones. (FGD 8)

Some situations were reported where people got the information as they were **confronted to a specific situation**, for example when being denied access to a public service that was closed or only accessible with an appointment.

- P: the information came through other ways, through rather indirect ways. When you come to realise that because of that (the measures against COVID-19), you cannot get inside. If you want to go to the municipality or you want to get a document and they tell you "No, you cannot", "Why ?", "COVID-19 measures, you need to make an appointment". (FGD 5)*
- P: Yes, take the example the mask. (...) the first time, I got on the bus and I didn't know that it was compulsory and someone said to me "you can't get on, you need a mask", so to confirm that it's mandatory. And for most things, it's like that all the time. It's when I'm confronted with the situation that I know I have to do that. (FGD 5)*

C. TRUSTED SOURCES OF INFORMATION

Contrasting views were collected regarding trust in politicians. Some people among this group think the government gives information that may not be disregarded or opposed concerning the measures to follow in order to get rid of the COVID-19, so they believe in these messages.

- P: But if it's something that comes from the State or something, it's more, how do you say?... From the government, it's something, it's true, it means "we have to follow" but if anyone says anything, I don't count on that.*
- M: So you trust what the government says?*
- P: Yes, because we have to follow. If they say to do the vaccine, we have to do the vaccine. Or we are in trouble afterwards. For example, to settle the papers, to go to the hospital, to go now to the theatre, always we must have the COVID-19 pass now to go to several places. That means it's obligatory I think to do the vaccine, I see it like that, it's my opinion. (FGD 6)*

One participant even said they believed what the government was communicating because according to them, the politicians would not lie.

- P: I'm going to trust because it comes from the top and I don't think the person over there is going to say, is not going to lie, is not going to talk rubbish." (FGD 5)*

On the contrary, some participants declared that they do not trust the government because, according to them, politicians communicate in a way that aims to give the public a good impression, but is not transparent.

- M: And, as a result, who do you trust most for information? Is it politicians, experts, your friends and family, journalists?*
- P: Politicians, no [laughs].*
- M: Not politicians. [...] So to the question "Why did our two people of Turkish origin answer that they don't trust politicians?" it's because, according to them, they talk about everything that is positive for themselves so in other words, they will try to put themselves forward or put the things that they do to make people talk about them but no more. (FGD 5)*

During our focus group discussions, people mentioned that **they are confronted with too many information that is contradictory, making it difficult to know who to trust**. Some people even distrust everybody when it comes to the topic of COVID-19. The reported lack of trust in the government was explained or reinforced by what the participants called a lack of logic inherent to

some measures decided by the federal government, meaning that these were perceived as inconsistent or not making sense.

The non-French speaking participants in our focus group discussions considered **the experts and their general practitioner to be more trustworthy than other sources**. The general practitioners were recalled as reassuring the population in the beginning of the pandemic, when traditional medias broadcasted impressive and anxiety-provoking information.

P: For me, my doctor.

M: Your doctor. (FGD 6)

I: X, someone you trust?

P: Usually doctors, especially doctors.

I: What about doctors, your doctor or the doctors you hear on television?

P: Yes, yes, all the doctors on television.

I: On television, so the experts.

P: Yes. (FGD 8)

M: And just one last question before presenting the tools, are there certain people, certain people whom you trust more, for example politicians or experts or associations or your own relatives...

[...]

I: Yes, the experts, yes. (FGD 7)

Some participants also mentioned trusting **their relatives**, especially when those understand French better than they do:

I: Who are there people around you that you trust most? To whom you listen to? For example when it comes to vaccination ?

P: That's my neighbour.

I: Your neighbour?

P: Yes, my friend, a Belgian.

I: Ah, she's Belgian.

P: She speaks languages better than I do, when I talk about something that's not right she says "no, stop, it's like" and she's very nice.

I: And so it's your neighbour who helps you understand everything about vaccination, Covid?

P: Yeah, yeah.

I: And you trust your neighbour?

P: Yes, yes, 100% trust. (FGD 8)

2.3.2 PREFERRED FORMS AND SPECIFIC PRODUCT EVALUATION

2.3.2.1 GENERAL CONSIDERATIONS

During the discussions on the tools, it was **not always easy to reframe the discussion, which tended to focus more on the content than on the form of the messages**, and this was particularly the case when the video on vaccination was shown, as it raised many questions and reactions. We noticed that **the participants needed to express themselves on this issue and to raise their questions and feelings** during this focus group discussion.

We found that **the content related to vaccination was so emotional** for the participants, that it was difficult and would have been unethical to ask them to share their opinions only about the form of this type of tool without addressing its content. We therefore left space for them to express certain experiences or feelings and then tried to gently reframe the discussion. In all the focus group discussions, we had to remind them of the objectives of the research and say that we were not able to answer their medical or technical questions.

Specifically, we found that it was **difficult for participants to compare tools that are completely different in content by only giving an opinion on form**. Indeed, the content of the brochure on the measures was already known to everyone and was less questioned than the content of the video on vaccination, which was more recent and generated many questions and some anxiety.

Concerning the natural voice audio more specifically, the **person speaking in this audio file was not a native French speaker**, so the message was particularly difficult to understand and follow, not only for all the focus group discussion participants but also for the facilitators who hosted our focus group discussions in their organisations. **It was recommended that French teachers, whose mother tongue is French, be used to produce these types of products.**

On another note, we heard during the exchanges that a significant number of the participants have a **need for communication tools whose content and form is reassuring**. Regarding this issue, we noticed that among the people providing information, including policy makers, some were more appreciated than others.

P: That's right, because it was only afterwards that I found out that (name of minister) was an (name of political party). Not everyone is an (name of party). But in spite of everything, I find that (name of minister) had a way of saying things, as we said earlier, that was human.

[...]

P And that plays a lot on the population.

P: and physically, by the expression of the face and all that was very, very visible. (FGD 1)

(...)

P: Oh no, I didn't want to discuss it here, but I think (name of minister) is good and says things well and with compassion too" because there is a part of the population that was really frightened too, and moreover the job was not easy(...)

(...)

P: Many times, I said to myself "I wouldn't like to be in their shoes" and that also humanises things a bit by saying "they do the best they can" because there you go... (FGD 1)

In addition, a small number of participants mentioned that they would prefer written content to a certain extent, particularly because **the images broadcast in the media during the crisis were very impressive and anxiety-provoking**. One participant, for example, explains that at the beginning of the pandemic the images used and the tone of voice were quite scary and alarming, which made her prefer to turn to purely textual content:

P: (...) In fact it was especially the scenes, it was the image that was used the most I think, that was the most striking. Because obviously they showed you people turned upside down like that on a respirator. And then I remember there was something that was striking, it was a person, they had broadcasted it, it went from one site to another, it was a person who said that, here it is, "you're going to be confronted with something very serious" and it was a voice, it was one who said that she worked, a nurse, who worked in the services and she said "we're hiding the truth from you, be careful" but it was really still at the beginning. And it was this voice, it was really frightening, I got so stressed... [...]

P: I preferred the written word. Why? Because it was less scary. (FGD 3)

More generally, we found that **the choice of visual representations is particularly important in crisis communication**. Indeed, in this particularly anxiety-provoking pandemic context, images can exacerbate feelings of fear in the target audiences and provoke a form of rejection of any information related to COVID-19. Similarly, **audio messages on their own, particularly when they are not accompanied by images, tended to induce feelings of anxiety among this audiences**. We found that when the **tone used is injunctive**, the audio message is quickly rejected by these audiences who need to feel that they can freely make individual choices about their health and about their lives in general

Finally, the fact that some of the messages presented contained **outdated information** provoked reactions from the participants and sometimes **diverted the discussion from our research objectives**.

2.3.2.2 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH FRENCH-SPEAKING PARTICIPANTS

A. THE VIDEO

Two versions of the video, one with subtitles and one without, were presented to the focus group discussion participants. The video can be found on the federal government's website (www.info-coronavirus.be) but is not (or was not at the time when we conducted our focus group discussions) downloadable. Its access was therefore challenging several times. Moreover the time it took for the video to load was often abnormally long regardless of the quality of the internet connection, allowing only a small part to be viewed. In addition, the video sometimes froze when we tried to put on the subtitles or change the spoken language, as the language set by default was Dutch.

First of all, it should be noted that the video was the tool that generated the most reactions regarding its content and that it was sometimes very difficult to reframe the discussions around our objectives. Our focus group discussions took place during October and November 2021, a few weeks before the government decided that a third round of vaccine was necessary for the entire population. Therefore, most of our participants had already been confronted to the vaccination process which had been a source of stress and anxiety, especially with the fact that in the beginning of the vaccination process, people could not choose which vaccine they were

going to get and many false information about the different brands were circulating among the population. The following excerpts illustrate the concerns shown by some of our participants with regards to the vaccine against COVID-19, its side effect, its validity, and how they tried to bypass the fact that the vaccine brand could not be chosen.

P: [...] Personally, I chose. Well, within myself I had chosen... and I was lucky enough to get the one I wanted. I thought "wow, that's a good timing", and I said it. I wanted to say it anyway, I said "it's good that you're giving me this one because if it had been another one, I would have refused". I said "don't tell me about AstraZeneca". I had heard too much, too much bad about it.

P: But there were ways to hijack the process because when you signed up on the internet, you looked at which centre...

[...]

P: The days, the dates and they would tell you which one it was because my parents absolutely did not want AstraZeneca and I was the one who did the registration since they don't have internet and, in the end, I remember that there were several possibilities with different vaccines and we took the one where it was not AstraZeneca. (FGD 1)

P: When I went to get the vaccine, there was a woman in front of me, she gave her identity card, they gave the mark, on the label, the mark of what she was going to... And she didn't like it. She took her card back, she went out. And I, in my head, I said to myself "If it's not Pfizer, I'll do the same thing too, I'll go out" and when I arrived at the counter, they gave me Pfizer automatically. Afterwards, when we left there, I asked the person who gave us the vaccine how and why, she told me it's with the ID card, we know which vaccine you need. (FGD 2)

P: The vaccine. I've been vaccinated but it scares me. Why? On the one hand, I'm not against it, on the other hand, why did they create a vaccine that is not so clear, it is not clear. When I asked about the validity, I heard we don't know yet. But why do you vaccinate? The typhoid vaccine for Africa, I did it, it is valid for three years. The hepatitis B, I vaccinated myself three times and it is for life, you don't need it anymore. (FGD 2)

P: And they say AstraZeneca is the bad one and yet it was the best.

P: AstraZeneca and Pfizer.

P: Because Pfizer now it triggers diseases. For example, there's bone disease, inflammation of the bones that happens in people over fifty. Now there are so many people who have caught this disease. In my case, it triggered an allergy against everything that is meat related. Now I can't eat protein, even white beans, when I eat larger amounts, I get choking and everything, and my doctor told me that there are many people who have the same symptoms.

[...]

P: That's for sure and I think why don't we have the right to choose? It's imposed.

P: I think that for me, I was called, a lady who worked in the vaccination centre, she called me in (name of city) to come and be vaccinated with my family and said that I would get the Johnson & Johnson and it's one dose. I was in doubt. Why one dose when other vaccines it's two doses. (FGD3)

More generally, the focus group discussions evidenced that participants felt the need to obtain more information about vaccination. Indeed, some participants commented that the video did not contain enough details and that many of their questions remained unanswered after watching it:

M: What did you think of this video, does it seem clear and accessible?

[...]

P: Yes, but it doesn't give enough information.

[...]

P: Didn't they say if, for example, you take Pfizer for the first time, for the second time, they can give you Moderna?

[...]

P: No, it's not... It's too simple, with those syringes.... There are a lot of things that are not explained, for example, in terms of vaccines, Moderna... They don't say "it's one dose, two doses, ...". There are many things, that's it... And how you get the invitation. (FGD 2)

M: So, you mean maybe they should have given more information in relation to side effects?

P: Exactly, that's not what they say. They say you should take paracetamol, paracetamol didn't work for everyone. There are people who had problems with side effects to the point that they went to the doctor for treatment. (FGD 3)

Nevertheless, on the form of the product, most of the participants mentioned that the video was generally clear and pleasant, and that the images were self-explicit enough for people to understand most of the message, making it accessible.

P: Ah yes, clear as day, it's, there you go, you have the vaccine, you don't have a choice, you have to take the one they impose on you and that's it. (FGD 1)

P: Yes, for me it's okay. For me, it's okay. (FGD 2)

P: But even, I think even someone who doesn't understand, they can understand with the pictures. (FGD 3)

However, some remarks were made regarding the feelings triggered by some pictures. For example, one participant found the image of the syringes too big and therefore "scary»:

P: It's too big these syringes, it's scary, I mean... (FGD 2)

Moreover, the representation of the characters, with their specificities (in the video that was shown during the focus group discussions, the main character is a blind man of a certain age from multiple origins), was sometimes perceived as disturbing, diverting the attention from the main message:

P: It's always the question of "is this a gentleman who wears sunglasses because..."[laughter]. It's unusual you might say.

P: And his walking stick

P: That's right, that's unusual.

M: Ah yes, his walking stick too, we wonder a bit why. (FGD 1)

P: And why use a blind man again? (FGD 2)

As far as the subtitles are concerned, we noticed there were discrepancies between participants. While some participants found them "distracting" and stated that they would prefer a video without any subtitles - as illustrated hereafter in the two first excerpts-, others, on the other hand,

preferred to have subtitles in order to better understand the video or even be able to reuse it in a printed format.

P: I prefer without. [...] It's a double message. It's unfitting, it's hammering, "you didn't understand, we'll get better..." I find, once is enough, it's very understandable. (FGD 2)

P: It was clear enough without the subtitles. It's well explained and everything [...] The subtitles, they don't have anything to add, on the contrary, we don't even have time to read them. (FGD 3)

M: Does it feel better with or without subtitles?

P: It's a plus. Maybe we can print better like we were talking about yesterday.

P: Yes, yes, we were talking about the visuals, the subtitles. (FGD 1)

After discussing the video, the participants were provided the link to the page of the federal government where the video is hosted and they were invited to search it with their smartphones to access the video by themselves. This was a very difficult or even impossible exercise for some of them. Several stated that they did not know how to do so. As the participants appeared to be very embarrassed, we did not proceed more than necessary with this exercise. Another difficulty that was faced for this exercise is that, not all the places where the focus group discussions were conducted had an internet connection available for the participants, nor an access to computers or tablets for the participants who did not have a smartphone.

M: And if you were given the link to connect the video, could you access it via your phones for example now?

P: I don't think so now.

M: Since you don't have internet here?

P: I don't have...

M: Do you all have a smartphone? No, you don't necessarily have a smartphone or a computer?

P: I'm not so much for all that. (FGD 1)

In brief, our results show that that not many participants were able to search for the information on their smartphones by themselves, even when provided with the link. In addition, for the minority who managed to successfully access the federal government's website, they obviously rapidly found themselves lost in the flow of information and were unable to find the video without our help. Moreover, once they accessed the video, they encountered the same difficulties as we had encountered ourselves during the focus group discussion, as mentioned in the beginning of this section.

When asked how they would prefer to receive this video, some participants mentioned Facebook and WhatsApp, while others suggested that this kind of video should be shown on TV instead, in order for people who do not have access to the internet to be able to view this video too.

P: What I meant was that the website, not everyone has access to it. Not everyone can surf the internet and find such information. On TV, yes, I think it's good because in fact, even if you're not watching TV, there are children who watch cartoons, it can be passed on, it can give an idea to someone who is against vaccination. On social networks as well, yes, because at certain times we use Facebook, there are adverts that come through and everything, it can come through there too but here on the internet I find that not everyone has access to it.

M: And the others?

P: I find RTL good for me, to explain well and RTBF also, also it explains very, very well. It's better for me. (FGD 3)

B. THE ONE-PAGE BROCHURE ABOUT THE MEASURES AGAINST COVID-19

As previously mentioned, a one-page brochure regarding the measures to be followed in order to avoid being contaminated by the Coronavirus was given to the participants. It should be noted that the majority of the participants received a colourful version. For some of them however, due to printing issues, the brochure was in black and white but was, nonetheless, shown in colours on the power point presentation that was visible during the entire time the participants were analysing the brochure.

The vast majority of the participants found the one-page brochure easy to understand. They found the texts and the picture clear and accessible to everyone

P: [...] Well, it's clear and sharp, the images, that's it. Even a child who saw these images would understand them directly. (FGD 1)

P: The main message is conveyed. It's clear. (FGD 2)

As a result, in most focus group discussions, the participants understood the different measures depicted, i.e. *stay home if you are ill; wash your hands regularly; keep a distance of 1.5m from others*, and were able to explain them in their own words, or to give their opinion about them:

P: Globally, I think it's good, which is logical, if you're sick you stay home, that's logical. Well, not especially because there is Covid, even if you are sick, if you have something else, it's better to stay at home than to go and spread germs to everyone. (FGD 1)

P: There, the first one, I think that's totally okay, I totally agree with that. If you have fever, if you're not well, you should stay home. You have to see a doctor too. It was hard at the beginning of the lockdown because doctors didn't want to examine people. You would get them on the phone and say what you have and they'd explain: that's it, that's good. During the second lockdown, I washed my hands so much, putting gel on them until they became red all over and rough, that's an obligation, we have to do that. It's true that we forget when there are no problems, we sometimes forget to wash our hands and we also teach the children, it's a good habit to teach the children to wash their hands. Every time they come in from outside, they have to wash their hands. Here, the distance, as X said, it's not easy and sir also said that, whether it's in the bus, in the subway, whether it's in the markets, whether it's... It's very difficult, it's not easy, but we deal with it, what else can we do? Life goes on, that's it. (FGD 2)

Although the brochure as a whole seemed clear to most participants, some comments heard during the focus group discussions seem to indicate that not all information is yet clear to everybody. For example, the interpretation of symptoms:

P: For example, here it says 38 degrees, we don't know what the room temperature is, is it...

P: What does that mean? What does that mean? What does that mean?

P: It's a communication issue here, because you have to think about everyone. (FGD 3)

The reason why the one-page brochure was perceived as easy to understand by all participants is because it concerns rules that have been repeated many times since the beginning of the pandemic, and that are by now well known to all. As the participants put it: *"these rules are well known by now"*. As a result, the usefulness of such a brochure was questioned in some groups and the participants did not seem eager to share it with their relatives, because they felt that the

people around them might not very interested in this type of material and also because the information contained in this one-page brochure was already known to everyone:

P: Oh no, they have a lot of information...

P: Everyone, everyone... [They know the rules, we all know the rules. You know it's a rule, ...

P: Universal rules.

P: Even if you give them now to a child, a little child, he will say "oh yes". (FGD 2)

P But by now I think everyone knows that. (FGD 3)

P: I would say that people would put it in the garbage.

P: I mean, you're going to give that away but it's true that you see a lot of that, you see a lot of brochures like that on stores or whatever you see a lot of them, or washing your hands, the distance, you see that a lot. But giving that to people right now, they're going to take that...

P: They're going to take it and they're going to put it down. (FGD 1)

However, even if they did not seem willing to share the brochure with their relatives, the participants still thought it is an appropriate material to inform the population. When we asked them where they would like to find such brochures, they stated that they would like to see it in several public spaces such as shops, advertisement boards, on buses, in hospitals or even on television so it can be seen by a maximum of people:

P: And like I said, on billboards. There are quite a few times where you find giant TVs on the street.

P: On the buses.

[...]

P: There are also waiting rooms in hospitals.

P: Now we see TVs and everything, why not put it there? But leaving it like that on the site, I don't see..., it's not for everyone. (FGD 3)

Although the participants understood the message contained in the brochure, they expressed the **difficulties for them to apply the recommended measures in their daily lives**. For example, the fact that people have to stay home when they have symptoms (first picture in the brochure) seemed to be difficult to apply for the participants:

P: In the first picture, I think that it's not every day... For example, when you have a temperature of 38, it's not every day, it's not when you're sick that you shouldn't work, sometimes it's a passing temperature, it can pass, you know? And that's no reason for me to stay at home because sometimes I have a temperature of 38 and it goes down quickly. (FGD 2)

The measure that was highlighted by the participants as being particularly difficult to follow was the one concerning the need to keep a safe distance from one another:

P: Keeping a distance of one meter fifty with other people is not always obvious because you can do it yourself, but if you go to a store or the other, if you have a person who comes very close to you, if you try to ... I mean... [...] the stores, the buses, everything. (FGD 1)

P: [...] The distance is very complicated, very complicated, social distancing but, personally, I wear the mask, why would you have to... In stores, in clothing stores everywhere, and in supermarkets, people don't respect the distance. And, as I was saying earlier, the transport too. The subway,

the tram, it's crowded, it's tight, it's impossible in transportation. And also, as I was saying earlier, I work with kindergarten children, up to second grade, there are ten children who come to see me, so it's... Even if they tell you "Be careful", so the solution is that me at that time, when I take the transport, because life goes on, it's not a meter and a half but I keep the mask and the idea that I hold and I have hydroalcoholic gel in my pocket every time, that's the solution I found. That's how I have to do it, there's no other solution. (FGD 2)

Thus, the one-page brochure on measures was well understood by the participants, but the information was perceived as too theoretical and difficult to apply. The participants stressed that they would welcome additional information on such a product, that would more concretely and specifically inform them on how to concretely apply the measures. Their reactions showed that the information in the brochure was not sufficient for them:

- P: (...) So, here, for example, you put 38 degrees but it's not precise because what is that? More than 38 degrees means the person is sick... so 38 is normal? And then it says "Stay home if you are sick" but it doesn't say, for example, you have to call a doctor, and you stay isolated, alone or with your family? Because it's isolated, but it's like all alone in your corner and do nothing? But you still have to say "call your doctor if it's more than...", it has to be much more precise, it's too general I think. So, here it is, it's "call the doctor", that should be noted more precisely. So, when you say "wash your hands frequently", how? How do you wash them already? What is the way? Because "wash your hands" is in a general way, because it can be much more precise and with what soap, what type of soap? Is it a universal soap or a soap with hydrogel? So it's still a bit vague, I think, about this washing.*
- P: (...) And then to keep a distance of one meter, in which position is it? Where is the position that is here? These are two people who are not looking at each other. Is it that way, even if you are one meter away, can you get contaminated? Or is it face to face? That's what needs to be clarified, it's face to face because now they're not looking at each other. (FGD 2)*

Moreover, as far as the first rule is concerned ("Stay home if you are ill"), the picture of the house was perceived as unclear by some. The message became clear only when reading the sentence next to the picture. The message would therefore be inaccessible to people who cannot read, as some participants stated.

- P: Staying at home. No, the sentence is clear. It's the drawing that's not clear. If a person does not read...*
- P: That is to say, for example, Mom, she doesn't read, she doesn't understand this picture. (FGD 3)*

With regard to the third picture ("Keep a distance of 1.5 meters from other people"), the beard of the character was mistaken with a mask by some participants:

- P: Is that the mask?*
- M: No, that's a beard.*
- P: Yes, there is one who has a mask.*
- P: No, no, this is a beard.*
- P: That's a beard [laughs].*
- P: The man has a beard.*
- P: Oh yes [laughter]. (FGD 2)*

When it became clear that the picture was showing a beard and not a mask, some participants wondered why the issue of the mask was not addressed in the brochure:

- P: The mask...it is not even put on it!?... (FGD 1)*

More generally, the choice of representing images of people from minorities (a blind person, a person of colour and a person with a hijab) in most of the brochure was questioned, as it might be perceived as stigmatising:

P: No because actually what's happening is that here, for example, you're using a person with a hijab and an African woman, so it's like you're putting a connotation actually, without it being general, you know kind of? That's why I notice, there's a blind person so you're taking minorities a little bit...So, there you go, because here there's the man with his wife, it makes a connotation what while you remain in a general way. (FGD 2)

In addition to creating a risk of stigmatization, the depiction of people with certain specificities in the pictures could, according to the participants, create confusion by leading to think that the message is specifically addressed to a particular group of people and not to the general population, as illustrated in the following excerpts – the first concerning using images of people from multiple origins (measures “stay home if you are ill” and “keep a distance of 1.5 meters from other people”), the second in regard of using drawings of blind and old people (measure “keep a distance of 1.5 meters from other people”).

P: On the drawing there is an African or a black person, we will say that "there is some ...".

P: Discrimination?

P: Discrimination, or if you put a white person they will say "oh that's only for white people, we black people are not concerned". So you have to see the information...

P: It's segregation. Minorities, that's what it looks like actually (FGD 2)

P: And then it can also make people understand that elderly or disabled people have to respect the 1.5 meters distances. (FGD 1)

To overcome these issues, it was therefore advised to propose **more neutral pictograms**, especially for the brochures targeting the general population.

Lastly, although some participants appreciated the short sentences and the airiness of the brochure, others commented that was not very attractive, nor innovative.

P: You see these brochures everywhere.

P: Yes, I think so. I would say that people would throw it in the garbage.

P: I mean, you're going to give this away but it's true that you see a lot of them, brochures like that you see a lot on stores or whatever you see often, or washing your hands, the distance, you see that a lot. But giving that to people right now, they're going to take that...

P: They'll take it and they'll put it down. (FGD 1)

C. THE AUDIO FILES

As described in the introductory chapter, two types of audio were presented to the participants. The first was in natural voice and the second in synthetic voice.

The first audio, i.e. with a natural voice, was considered not very understandable or even totally incomprehensible by most participants. **The speech rate was too fast** in their opinion, which led some participants to comment that **the speaker was “eating her words”**:

P: And she spoke fast too, it takes time to assimilate. Me, with my old age, I didn't assimilate at all because it went too fast.

P: She spoke fast, with an accent.

P: I didn't understand very well what she was explaining. She was eating her words. I don't know who's talking but she was eating her words. (FGD 1)

P: [...] I'm for the second one because the first one speaks fast, fast, fast.

P: Yes, and with a low voice, and very low. (FGD 3)

The participants unanimously said that **the part where the voice spelled out the letters to refer to the government website was the least understandable**. We could also observe this through the reactions of the participants when this part was played.

P: And at the end, the information...

P: With the "w", I didn't understand anything.

P: So there, I didn't follow anything, really nothing, nothing. (FGD 1)

The second audio, i.e. the one with the synthetic voice, was considered more understandable because of the slower speech rate, and therefore more enjoyable to most of the participants:

P: His voice was much clearer (FGD 1)

P: Well yes, the second one because it's much slower, much more audible. The other one eats her words, "blblblblbl", we don't understand anything, it's... (FGD 2)

P: And the second one, she speaks softly, like this and her voice comes out in a calm way, that's it. We understand what he says. (FGD 3)

However even if it was easier to understand, some participants perceived the voice was "robotic" and therefore not very pleasant, especially because at certain moments the synthetic voice was reciting one sentence after the other, without stopping in between two sentences:

P: So, second, the robot, it's too fast, talks like a robot. Several sentences...

[...]

P: sound glued?

P: Glued, yes. (FGD 3)

This unpleasant « robotic » sound, would lead some participants to stop listening.

P: [...] I disliked this cut, robotic side so much, I didn't listen to anything. (FGD 1)

As in the audio with the natural voice, the part where the synthetic voice was spelling out the letters from the link of the federal government's website, at the end of the record, was not clear to the participants:

P: [...] Me, I preferred it because it was maybe robotic, yes but slower so I have time to listen, except for the end.

M: yes, yes, ok. And what do you think?

P: The same. At the end, there... No, it's true that it was clearer. But at the end, no, forget it. (FGD 1)

In one focus group discussion, a comment was made that both audios contained too much information:

P: Look, this, listening in the media at this time, I don't want to... It's too much, you see. The news, already... (FGD 3)

Most importantly, parts of the information provided in the audio messages was criticised for not considering the participants' realities, therefore leading to a rejection of the message.

P: Now she was talking about the "club", "you're not in the garden anymore?", but not everyone has a garden, so those ones are punished because they don't have a garden. (FGD 1)

When asked if they would share this type of audio with their relatives, one participant only said that he/she might, but only if it were shorter:

P: Yes, if it was short. (FGD 1)

However, this type of tool was generally disliked by the participants. According to some of them, the audio form can sometimes create a feeling of anxiety. In addition, the tone of voice used in these audios was felt by some participants to be too injunctive:

P It sounds like an order. (...)

P: I didn't like it, because it gives you rules, rigid rules "You, your bubble is going to get bigger" something. So it gives you rules and it's a bit dictatorial.

M: Yes, that's it.

P: More like orders.

P: Orders. (FGD 2)

This type of material, which does not come with images, leads some people to create their own mental images that are sometimes very dramatic, as illustrated hereafter. Images of war were, for example, reported by one participant:

P: It's like... I went to Germany once, and to the train station in Germany.

M: Yes, they speak like that?

P: *With the German language, what did it remind me?... I got goosebumps. It reminded me of the movies of...*

P: *Hitler.*

P: *yes, from the war. Where they were deporting the Jews and all that.*

P: *The deportations. (FGD 2)*

Therefore, when asked whether they would like to share this audio, most participants said they would not because people around them are already bombarded with this information:

P: *Three quarters of the time no because I say to myself no, we're fed up with it. (FGD 1)*

Some of them, however, said that if the audio was about something else, not related to COVID-19, which might be of interest to their relatives, they would eventually share it via Facebook or WhatsApp:

P: *It depends what it is. If it's about the Covid, no. If it was on, like an event, a fire or the other, that might interest people in the area, yes, but otherwise, no. (FGD 1)*

Results related to the still frame accompanying the audio files

The participants did not usually notice directly that there was a still frame accompanying the audio. They had to be shown the image a second time before it could be discussed. In principle, the fact that a picture accompanies the audio was appreciated, and was seen as reassuring or comforting:

P: *It's shocking, it's shocking. It's good to give us an image first, it prepares us to hear. To see the image is even better.*

P: *Exactly. It's better when there are both images and sound. And it's less frightening than when it's "beware of the population", it's too frightening otherwise... (FGD 2)*

Do you think it's interesting to have an image that goes with the audio?

P: *It's always an asset. (FGD 1)*

Even though it was reassuring for some participants, the still frame accompanying the audio was unclear to others:

P: *And now you're thinking, what is this, red blood cells?*

P: *Because that's the red blood cells.*

P: *It doesn't make sense to me. (FGD 1)*

P: *That's the mom and her kids [laughs]. [...] Or either the number of people in your house or I don't know. (FGD 3)*

Some participants, thus, mentioned that the text was needed to understand the image.

P: It's because here they write Coronavirus because otherwise if it wasn't written that, what would it mean? Yes, a drawing, a cross, circles with red things. (FGD 1)

P: As it shows antivirus, stop the virus. But with the sentences...[...] without the sentences, I don't understand. (FGD 3)

The participants also asked why the image was crossed out, as this would create confusion.

Finally, the **addition of the .be logo** was viewed rather positively by the participants, but it was **rarely associated with official information from the federal government**. For the participants, it meant that the information concerned Belgium:

P: Dot be? It's for Belgium. Dot Be, in Belgium. [...] I mean, I say, they put that but the logo, well I say that because "dot be", because it's for Belgium so in France they'll put "dot fr" so it depends from one country to another, it's really for the country itself. (FGD 1)

P: No, I see Belgium.

P: Belgium.

P: I think directly, there is the flag.

P: It's red, black and yellow.

P: The flag of Belgium. (FGD 3)

In addition, this .be was sometimes associated with the end of the Belgian URLs:

P: Dot Be we see it a little bit everywhere as it's for Belgium, that's it, if we type on a site, we always put "dot be" well it's for Belgium, because for example, the school vacations, for example, if we don't put the "dot be" we're going to give us the page for France, but France it's not the same as Belgium, the school vacations, the celebrations, it's not the same, automatically, we're obliged to put "dot be". (FGD 1)

P: It's for the internet. (FGD 3)

Although the participants found it rather positive to have this logo on the tool, most admitted that they had not noticed it before being asked about it.

P: Not immediately, we have to look at it and maybe look at it to pay attention that for now we wouldn't have paid attention to tell you the truth.

[...]

P: Yes, but in my opinion, it's more reassuring when you see that. It's just the fact that you don't pay attention so much as you see posters, so you don't pay attention to all the details. You look at the image, it's enough with the image, you go away, that's it. (FGD 3)

D. THE PRODUCTS PREFERRED BY THE FRENCH SPEAKING PARTICIPANTS

At the end of the focus group discussion, we asked the participants to rank the three tools in order of preference. Most participants ranked either **the brochure or the video first and the audio last**.

Those who chose the video first chose it mainly because it was considered more attractive and clearer than the other tools, which is partly related to the fact that it mobilises several senses at the same time.

Those who chose the brochure did so mainly because the message seemed simple and clear. It is also because it seemed softer than other messages:

- P: I preferred the brochure because it's an image but it's softer, it's visual, it's directly the image and it's softer I think and understandable by everyone, it's mostly that in fact. (FGD 2)*
- P: But to be accessible to everyone, I prefer photos with sentences, it helps to make it accessible to everyone, to let everyone know. (FGD 3)*

Several people who had mentioned that they did not have internet at home and could therefore not get the information via this channel - one of whom mentioned not having television either - still ranked the video first, provided this would be available through other channels.

The participants ranked the audio file last because it was less clear and understandable and also because it was considered too injunctive and scary:

- M: The audio? The last one?*
- P: Yes.*
- P: Yeah, me, that's the last one.*
- P: It really...*
- M: It made you a little tense?*
- P: For someone who doesn't understand, it's hard, you know? I understood the one we filled out better and the other one I understood anyway but not the last one. What is it? Is it Coronavirus? And why are there two there and three there and one there, why? I didn't understand.*
- (...)*
- M: And the audio why you didn't like it, it seemed to you...*
- P: The audio, it's because the voice is a bit...*
- P: She was aggressive in her message. (FGD 2)*

Finally, some people, a minority, ranked the brochure last and the audio second on the grounds that the brochure contained too little information:

- M: So is the message clearer on the brochure, clearer on the video here or clearer on the audio?*
- P: The video.*
- P: The video.*
- M: The video the message is clearer? And it's also the channel that's more enjoyable?*
- P: There is more too. [...] But that wouldn't be enough, we need a little booklet. (FGD 1)*

2.3.2.3 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH NON- FRENCH SPEAKING PARTICIPANTS

A. THE VIDEO

Two versions of the video were presented to the participants during the focus group discussions. The first version was one with audio only and in the second, subtitles were also added. The language of the video depended on the public present in the focus group discussion, as explained in the methods section.

For most of the participants, the information transmitted through this product was perceived as clear and understandable.

M: what about this video, did it seem clear to you?

P: Great

I: Yes, yes, quite clear, yes. (FGD 7)

P: The video is clearer than when you speak [laughs]. (FGD 6)

P: No, that's pretty clear.

I: It's quite clear.

P: I got it all right, it's fine. (FGD 8)

Moreover, the video was described as well-made and attractive:

M: Yes, yes. Out of ten points, come on, you're teachers, you're teachers and you have to put a rating on ten points. Five, five out of ten?

P: For me it's ten.

M: Ten out of ten? Very good, excellent!

P: Yes.

M: X, if you were to put a grade, put points, five out of ten?

P: Ten. (FGD 8)

The video with subtitles was generally preferred over the video without subtitles.

P: The second one.

M: With subtitles? Yes.

M: Did it seem clearer to you? Better understanding?

P: more...

M: And the other people, do you prefer the first or the second one?

P: The second one me.

M: Second, second.

M: The second one, with subtitles. (FGD 8)

Moreover, we could not provide a version with Turkish audio but the Turkish participants in one group declared that the subtitles were enough to understand most of the content, as the images

are easy to understand and support the text. This comment on the accessibility of the picture was also stated in other focus group discussions, as illustrated in the second excerpt hereafter.

M: And is the fact that this video that we presented to you, we presented it to you in French with Turkish subtitles, is it for you clear enough and is it good for everyone or would it be better to also have it spoken out in Turkish so that everyone can understand because not everyone may have access to reading in the same way?

I: *No, that's enough. (FGD 7)*

P: *I think that if you don't understand French and see only the pictures you still understand well. (FGD6)*

However, amongst the people who speak Turkish, it was mentioned that not everyone in their community has access to written information, either because they cannot read or because they do not understand the written Turkish, as it might often be the case for elderly people or people from Kurdish origins. Therefore, they suggested that this video be adapted to provide a Turkish audio version.

I: *Except maybe for people who can't read or write, yes, maybe for those people, for the elderly etc. maybe. [...] Yes, in fact, they may be speaking for refugees, but we're talking about refugees of Kurdish origin who sometimes don't speak Turkish, but in general, the people who had schooling etc. speak it because I also translate a lot for them. But it's true that the older people etc. don't know how to speak or if they are women, often did not go to school. They can't read or write Turkish because their mother tongue is Kurdish, so they don't know. But, there you go. [...] And even, sometimes it's not only the Kurds or the Turks, sometimes it's true that the older people also don't have either, haven't done anything to learn either, maybe it's more the young people. (FGD 7)*

While, the video was seen by some as a good way to be convinced about the vaccination others thought that the information it contained was already outdated to some extent.

P: *In my opinion, this information, it's a bit old because vaccination started a long time ago ... It is not current [...] (FGD 6)*

Lastly in regard to the video itself, most participants conveyed that the reason why they could understand this video so easily might be because they already knew about the messages it contained, as they had already received so much information about the vaccination campaign since it started almost a year ago.

I: *Anyway, we knew it, it's something we know. (FGD 7)*

It should be noted that, as mentioned above, we experienced some **issues in accessing the video**. In one focus group discussion in Arabic, the Arabic language chosen for the video seemed to be set in a different language (Turkish according to the participants), although it was presented as being in Arabic.

Regarding the accessibility of the video, in order to observe if the participants could easily find the video by themselves, we provided the link of the federal governments' website and asked

them to try and find the visual materials. Most of them tried to do it on their smartphones when they had one. but encountered difficulties in trying to access the product.

M: Actually, this is the government's website.

I: Yes, that's the one normally. That's it.

P: Video, right?

I: Yes, I don't know if it's the video?

M: No, that's not it.

P: It's not easy.

M: It's not easy. (FGD 7)

In addition, if some of the people present in the group had already heard about the federal government's website, they were only a few who actually had visited it:

M: You heard about the website but you never went on it?

P: Yes, yes, I've been to...

M: Have you ever been on it?

P: Yes, yes, yes.

M: Did you understand everything you saw on the site? Was the information clear to you?

P: Yes, yes.

M: Yeah. The others too?

P: No.

M: You didn't know? You can say if you don't know [laughs].

P: I've never been on it. (FGD 6)

These observations might suggest that the accessibility of the website could be improved in order for everyone to be able to access the content more easily.

M: So what do you think of this government website? Do you think it is easy, accessible to everyone?

I: No. [...] because we have difficulty to find, well, there is still a way to find it but for older people, it is difficult. (FGD 7)

The participants were also asked if they would consider sharing the video with their relatives and friends, a question to which most of them answered they would and a few of them answered they would not. If they were to share it, they would do so via social media such as Facebook, TikTok or WhatsApp, with a preference for the latter.

M: What channel, where would you like to see this video on, where would you like to see it?

P: On YouTube.

P: And Facebook too.

[...]

P: On TV.

P: TikTok. (FGD 6)

Some participants said they would share it within the family, others said they would share it at their workplace. In a focus group discussion conducted in the context of French lessons (FG5), it was also mentioned that French classes would be good places to share and discuss this video.

M: If you are given access to this video, it is actually accessible on the info-coronavirus.be website, but if we explain to you how to go on this video, would you consider sharing it with your family or friends?

P: Yes.

M: Work.

[Several people]: Yes.

M: Do you think it's okay to share it?

P: Yes.

I: X?

P: No.

M: No [laughter].

I: X, no [laughter].

P: I will share with whom? With you?

I: Yes, that's it [laughter]. For example, for example.

P: Yes and the family (FGD 5)

Pl: here at the class, here at the class we could watch the video. (FGD 8)

Lastly, when they were asked where they would like to see the video broadcasted, they suggested online platforms such as YouTube, but also suggested it to be shown on television, during advertisements. They also declared they would like to see this product in public places such as on advertisement boards on the streets or in bus stops, as well as in hospitals and doctors' waiting room.

B. THE ONE-PAGE BROCHURE ABOUT THE MEASURES AGAINST COVID-19

The brochure about the measures to be followed in order to limit the propagation of the Coronavirus was shown to the participants in the focus group discussions. The messages were in French with, to the extent possible, subtitles in the mother tongue of the participants. Therefore, the people who spoke Turkish (FG7 & FG5) had Turkish subtitles, the Arabic people had subtitles in Arabic (FG5). In the focus group discussion conducted with participants from different countries (FG6), the participants received a brochure with subtitles in their own language, if they were available.

For most participants, the information contained in the brochure seemed clear and understandable. People were able to reexplain with their own words what they had understood. The pictures were deemed self-explicit enough for people to understand the messages without having to read the text that is next to them.

*P: Yes, so, finally, everything is clear. [...] Whether it's the writing...
[...]*

M: For the two people who speak in Arabic, the text is understandable, the images are ok, and you can understand the images without seeing the text, that's it. (FGD 5)

I: We understood everything in fact, but it's true that, I don't know about Turkish here, there's not really... I mean, it's immediately understandable. Now maybe in relation to certain cultures or certain things [...] Yes, it's clear. Already, the image is clear. [...] Yes, no, everything is clear. [...] Even the children have learned it so... (FGD 7)

P: Besides reading, you look at the picture and you understand.

M: Okay.

M: We understand too, without reading, we understand, okay.

M: And you? Also? Everything is very clear?

P: Yes, also.

M: Everything is very clear.

P: Yes.

I: X, do you understand?

P: Yes, I understand well, yes. (FGD 8)

The participants highlighted that the reason why they understood the brochure so well might be because they already knew the measures in the brochure, as these measures had been the same since the beginning of the pandemic and had been repeated again and again.

P: We need no other versions because we already have enough information. Maybe if it's the first time, maybe we'd need other versions, but by now it's known, we have to keep our distance.

M: Yes, so the images seem clear to you because you've heard all the rules many times before?

P: Yes.

P: This time is the Corona, it's ...

M: Yes, we know. It's stuff we know and so it seems [...], okay. (FGD 6)

I: It's things that every person would normally do so ... Maybe more staying at home. [...] Yeah, it's a part of life now. (FGD 7)

Most participants reported to prefer having the text both in both French and their mother tongue, rather than only in their mother tongue.

M: And would you prefer to have a brochure in French and Arabic, or all in Arabic?

I: So this, only in Arabic, no French.

P: No, no, both.

I: Both, French and Arabic?

P: Yes. (FGD 8)

A few participants, probably those whose French level was good enough to understand the French brochure or those whose mother tongue is quite similar to French, however considered

that such simple and well-known messages are not worth translating, and would prefer to have it only in French:

M: Okay. What about the others? Do you like having two languages?

P: No, no I prefer to have only French.

I: French.

M: You only French. And you if you had Italian underneath, would you like it or not?

P: No. I understand very well (FGD 8)

In some cases, discussions occurred between subgroups of participants about the accuracy of some translations.

M: You told me that in Russian it was not well translated?

P: Not for me, but we just deliberated on this and decided that, yes, it's fine.

M: It's fine but it could be better?

P: I don't know, it's fine.

M: But what was it that bothered you about the translation?

P: It's because here, the first thing is to stay at home, yes, and in Russian, it's the first thing "if you are sick" and for me it's better if it's the other way round. But we agree that it's okay like that. (FGD 6)

Although the understood the content of the one-page brochure, they **questioned the fact that these measures are not easily applicable in the reality of** their lives, especially when it concerns the fact that people should stay home when they are sick (First image of the brochure), as some people are positive to COVID-19 but do not have symptoms. It is also the case with the physical distance of 1.5 meter between two persons (third image of the brochure).

P: Yes, in the house, that's it, so if you're sick, stay home but I'm sick but I don't have symptoms, I have the virus but I don't have symptoms, how do I stay home?

P: No, I have a virus but I don't have symptoms because I'm vaccinated, but it's possible I have a virus. But I go out but I don't have any symptoms, I don't have the head, I don't have a fever, but I could pass it on to the other person.

(...)

P: For me the third one is clear but I don't believe, it's absurd in the subway, in the bus for example, it's not possible, at school.

M: So you understand the message but not the application? Okay.

P: It's easy to say (FGD 6)

P: But it's not even done in stores now. I don't see at what store that can stay a meter and a half. (FGD8)

In addition, it seems that the third picture of the brochure (“Keep a distance of 1.5 meters from other people”) is not understood in the same way by every participant. Some people thought it meant a race between an elderly and a young person, as illustrated in the following extract.

P: I see like an old man and a lady. In sports, when he races and there's a distance ...

M: Ah, you see it as a distance...

P: Yes, that's it.

M: Of one whom is further ahead than the other in a race?

P: Yes, there is a distance.

M: Actually, he's a blind man, he's not an old man.

P: Ah.

M: He has glasses and a walking stick.

P: Ah, I thought he was an old man.

P: I understood that too. (FGD 6)

I: These are the characters. In the first illustration, it's an older man, is that on purpose? [...] And here, the last illustration, it's a man with a walking stick or it's part of... [...] older? [...] So in fact they are two elderly people, so one in the first illustration and the other in the second. [...] Why did you choose, that's it.

M: And not Mr. and Mrs. Anybody, absolutely.

M: Does it seem strange to you too that we have two elderly gentlemen, one person of colour?

I: Is it here, here...

P: Don't we have to stay at a distance of one and a half meters if it's someone older than us? We see in the picture there's a young person and, come on. (FGD 8)

Moreover, as we drew their attention to the fact that it was not an older and a young person but a blind man and a person from another vulnerable group, some questioned the stereotypes of this design.

M: And does it actually seem okay to you that we put diversity in the images, that we put a blind man or an old man and a lady, for example, from Africa?

P: I don't think so...

P: A blind man, why? Blind man, why?

M: To represent as many people as possible [...] What do you think?

P: (...) I think this image is good, yes, but now when I think of it, I see that this lady is African... (FGD 6)

Otherwise, when asked about the quality of the images, this was generally appreciated by the participants:

M: And what do you think of the images? How do you think of them?

P: Yes, they're good, if you're sick, you have to stay at home. COVID-19 or not Covid.

M: Yes, but just the quality of the images, do you...

P: No, the quality is good. (FGD 8)

With regards to the diffusion of the brochure, when asked whether they would recommend the brochure to others, the participants generally agreed that it should be distributed more widely because it is easy to understand for everyone independently of their age or mother tongue. Most of them thought they should be available through social media.

P: Facebook, Instagram, ... (FGD 5)

The participants also suggested to have this type of brochure distributed in a paper version in public spaces such as buses, schools, their doctor's waiting rooms or the entrance of their apartment building so that as many people as possible would get access to the information.

I: Maybe where we can get the most, well, where we could reach the most audience, people we'll say, in places where there's a little bit more audience. (FGD 7)

P: Yes, for the others, a little bit everywhere, where there are people generally in the commune, schools, supermarkets, markets, all the places where people often go. (FGD 5)

P: For me in the building, the neighbourhood.

P: All the frequented places.

P: Everywhere.

P: At school, transportation. (FGD 6)

In addition, in several focus group discussions, the participants declared that it should also be the role of the press and postal services to increase access to information by distributing this kind of product to people who do not have access to the internet, for example, through a distribution in the mail box of all the population.

P: Through the Post

M: In the mailboxes?

P: Yes.

M: Everybody's mailboxes?

P: Yes. (FGD 5)

C. THE AUDIO FILES

During the focus group discussions, participants listened to two audio messages about the measures taken by the federal government in order to limit the propagation of the virus. The audios were two versions of the same message: one in a natural voice, the other in a synthetic voice. We asked the people which one they preferred and why.

Most participants who spoke a little bit of French said they did not understand the first audio, i.e. the audio with the natural voice, well enough, because it went too fast and they quickly felt lost in the flow of words:

P: It was fast.

M: Does that first voice sound too fast?

P: Yes.

I: For everyone?

P: Not much understood.

I: No.

P: No.

P: It's too fast.

M: It seems fast to you?

[...]

P: Understood a little bit.

P: A little bit, it goes a lot fast.

P: I understood but it was fast.

[...]

P: I am lost. (FGD 7)

Moreover, the extract in natural voice was said to be “rushed” and people felt like the person reading the text speaks in a non-natural way, making the audio less pleasant to listen to.

P: The woman talks fast, and it does not sound natural like this. (FG 6)

The synthetic voice was preferred over the natural voice because the speech rate was slower and the diction clearer, making the message more comprehensible.

M: The second one? The second one is clearer? Do you think the first one is clearer or the second one?

P: Second.

M: The second one.

M: And why, why?

P: Because he speaks...

M: Softer?

P: Yes, softly. (FGD 5)

P: In my opinion, the second is clearer.

M: Second clearer.

P: Clearer.

P: Clearer.

I: For me too [laughs]. It goes slower, it's clearer, I think.

M: Yes, yes.

M: First, fast, fast, fast?

[...]

I: The first one, it's a bit more monotonous, a bit, how shall I say? The voice is ... Everybody agrees with the second voice anyway.

M: And the second one is also pleasant for you?

I: Yes, it was understandable mostly. Yes, it was better in my opinion. (FGD 7)

M: Did you understand the first one was the same text?

P: Yes, it's the same.

P: Yes, the second one is better.

M: *More the first or the second?*
P: *Second.*
P: *Second is better.*
P: *The second one, it's clearer, it speaks... (FGD 6)*

P: *Now we understand better.*
P: *Yes.*
P: *Now we understand better.*
P: *Yes.*
M: *We understand better. (FGD 8)*

Nonetheless, the natural voice was perceived as more “human”, and might have been preferred had it not been so fast.

M: *For you it's the first one, ok. And why the first one?*
P: *I prefer the first one because it talks...*
M: *Like a human? Like a person?*
P: *Yes, a human, that's it. (FGD 5)*

In the focus group discussion where a French teacher was present (FG6), both audios raised critical comments, one comment about the accent of the foreign-language speaker reading the natural version, and a comment about the French errors made by the synthetic voice that might limit the accessibility of the message.

O: *Both are... I have an idea, it must be a French teacher who pronounces this thing because the first one is with a Flemish accent, I don't know where from [...] And the second one is a robot that makes mistakes in French as well. For attention, because, well, normally, if you're a French teacher, you know what to emphasise, what to pay attention to when you're speaking, and so, just a suggestion. (FGD 6)*

In one group, the participants suggested that the message be read out by a man rather than a woman in order to increase its credibility. According to one of the participants (a female), in order to be persuasive, official or important messages should be read out by men.

P: *I prefer if it's important information, I prefer the male voice.*
M: *A man's voice?*
P: *Yes, the voice of a man who must speak.*
M: *So, are you speaking in relation to here, to this message or in a general way when it is...*
P: *In a general way.*
M: *So, generally speaking, it's a man who has to speak for the important information.*
P: *For me, it's for me, it's clearer when men speak. (FGD 6)*

In addition, it was reported in most groups that the audio files contained too much information and that it was difficult to stay focused during the entire message. According to some

participants, it is more difficult to stay focused on just an audio file, when there is nothing to watch, like on the television.

P: Sometimes I get lost when I listen to the audio.

M: After a while you stop listening?

P: Yes.

M: Was it too difficult to understand?

P: No.

M: But you're not interested for very long.

P: Because it's audio.

[...]

P: Because now we always watch something, not listen. Before, it was radio that gave the news but now it's not. (FGD 6)

Results related to the still frame accompanying the audio messages

With the audio messages was a still frame representing a crossed-out picture of the Coronavirus and a logo of the Belgian federal government. We asked the participants of the focus group discussions about their thoughts on these images.

We had to explain what the logo was about, as the majority of the people who took part in the focus group discussions did not know what it meant.

P: For me, it's everything that concerns Belgium, at the political level, at the level of society, it's what corresponds to society.

M: So, for you, when you see this, you know that it is information related to Belgium?

P: Yes.

P: Yes.

P: Not with Belgium, it's the Belgium site that gives you information not only concerning Belgium. (FGD6)

P: Belgium

I: The logo?

P: Yes, it's Belgian.

P: This is the information for Belgium. (FGD 8)

Some participants mistook the Government's logo for the end of the internet URLs.

I: That's when you do research on the Internet?

M: Oh yes, you put after "dot be". (FGD 7)

After listening to our explanations, the participants thought it was important to have the Government's logo (.BE) on the materials to guarantee its validity:

P: I prefer it to be there.

M: You prefer the ".be".

P: Yes.

M: Does that reassure you?

P: More yes.

I: Why?

P: I prefer because...

P: I saw the "be" and I think... [...]

P: There, you see I'm sure that's, let's say, what I see for sure. (FGD 8)

Knowing the meaning of the logo, the participants felt more knowledgeable, yet still declared that they would probably not pay attention to the presence of the logo in other documents in the future.

P: No, no, I don't pay attention.

P: I pay attention.

M: Do you pay attention?

P: Yes.

P: I don't.

M: You don't.

P: Me too.

P: Me too. (FGD 6)

Last, the cross over the picture of the virus raised many questions as the participants could not understand what it meant. Various significations to this pictogram were hypothesised by the participants: stop, multiplication, the end of the coronavirus, etc.

I: Yes. "Here, the cross I cannot understand? Is the Corona finished? Or, well, here it is. [...] Yes, because when you see it like that, you might think that Corona is over, maybe. But if you put an exclamation mark, "the measures against Coronavirus" exclamation mark, maybe... (FGD 7)

P: No, I thought "multiply".

M: Multiply, okay.

P: That means, the virus multiplies.

M: Okay.

P: I see (1:11:31) ? now I understand the virus multiplies, with the cross.

M: No, no.

P: I understand the cross, it's fighting, we're going to fight.

P: Oppose.

P: We are going to stop.

P: To stop.

P: It is to transmit, with the virus, transmits. At that moment, we see a lot of viruses, it's not the Corona, we see the Delta, we have Beta, we have alpha, that is to say a lot of viruses, it's multiplying, transmitting because of the cross.

M: Okay. And you, is it the same? Do you see it as "more viruses" too?

P: Yes. (FGD 6)

When asked how this product should be shared, some participants agreed on the fact that this message should be sent via instant messaging applications such as WhatsApp.

M: It's useful, okay. And so, you say it's useful, how would you see this message shared?

P: WhatsApp. (FGD 6)

D. THE TYPE OF PRODUCTS PREFERRED BY THE NON- FRENCH SPEAKING PARTICIPANTS

At the end of each focus group discussions, the participants were asked which product was their favourite in terms of accessibility.

The video or the brochure were generally cited as the preferred materials.

The participants who preferred the one-page brochure mentioned that it was clear and simple to understand for everyone. One participant stressed that they saw it as a good way to help a maximum of people to follow the measures.

P: I find the three interesting for me, they are interesting. The brochure is the easiest for the people, it helps to respect the measures. (FGD 6)

M: And why did you prefer the brochure?

P: It's simple, if you cannot read, if you don't understand, when you see the images, that's clear, it's simple. (FGD 8)

I: The first one.

M: The brochure, why?

I: It's clear with the pictures, it's very clear. [...] Maybe it's better that way because in fact, both in writing and in pictures, it's understandable. (FGD 7)

Another participant highlighted that he/she preferred the brochure because this tool requires a more active engagement to understand the information.

P: Me, I prefer the brochure because I am the one reading this brochure and I have to use more energy to understand brochure. (FGD 6)

The participants who preferred the video mentioned that they really liked it, especially with subtitles in their own language, as they say it helps understand, even if they are not watching the screen.

P: Video, yes, video is also good because I can understand the video, like here, (1:42:28) it's video like the brochure.

M: With pictures, symbols

P: Yes, because I can understand the video without watching it. (FGD 6)

P: The video with titles, it's very good.

I: Yes, yes.

P: And then the card is good.

I: Yes. (FGD 8)

I: I choose the video because as people often look for the easy way, maybe it's better to watch the video.

M: Because it's easier?

I: It's easier, yes.

M: To understand?

I: Than to think about reading, at the same time... (FGD 7)

Additionally, some participants stressed that materials like videos are preferable because they activate several senses such as their hearing and their sight.

M: And why did you prefer the video?

P: The video, I watch, and hear and read, so it's comprehensive. (FGD 5)

I: "Because for me because I touch a little bit of everything" but she talks in general, maybe it's easier the video. (FGD 7)

Some participants stressed that people are more used to watching videos than to reading texts. In addition, children and elderly people might not have access to textual information. Therefore, they proposed that **the brochure be readapted into a video**, as it was thought easy for everyone to understand audiovisual information.

I: Yes, there is a difference here because here we are talking about the precautions to take and here we are talking about the vaccine, so it is different too. [...]

Yes, so, apart from the content, it's true that if we made the video of the brochure too, it might be better. [...] Yes, that's it. Yes, for us, it's not too serious yet because we manage to understand, but for older people or people who have more difficulties, it's maybe better like that.

[...] Yes, and so the lady says, for example, if we did it in the same way as this video, it would perhaps be better with the same sound, the same voice. And the lady here says "it would be easier to understand even for children or elderly people etc. because it would be more colourful already", that's it. (FGD 7)

Quite unanimously, the audio files were considered the less preferred material. One person even declared that audio format was for music and not for important messages.

M Okay. You say you don't like the audio, right?

P: No, no.

P: It's not good.

P: audio is difficult (FGD 8)

P: [...] Not audio, audio should be for music. (FGD 6)

However, one participant preferred the audio because everything seemed clear and convincing, while the video was "too much".

M You prefer the audio to the video?

P: Yes.

M: And why?

P: With audio, I like it, it means it's well clarified, it means, with the words, it's well convincing, it calls for attention, you hear with the words.

M Do you prefer when there is just audio and not audio plus image plus text?

P: No, no.

M Okay. Otherwise, what?... videos are a "little too"?

P: Yes, with video, yes. I prefer audio. (FGD 6)

At last, it should be noted that for some participants, the preference of the material was determined not according to its form but also according to its content, as illustrated in the following citation.

P: I prefer the first one, it talks about the adverse effects of vaccines. It says that we don't have the possibility to choose what kind of vaccine we'll get. He talks about the vaccine, he says there are three types of vaccine. And, secondly, gives advice, I think he talks about activities, guests at home.

P: What is the advice?

P: That's the advice.

M The audio?

P: Yes, advice, yes.

M: Apart from the content actually, if you don't take the content, but just the way it was done. If it was the same message...

P: What is the advice, the rules?

M: Yes, it's the tips but if it was the same messages. For example, the audio was about the tips and the video was also about the tips, which one would you prefer?

P: I prefer the tips. (FGD 6)

I: Yes, there is a difference here because here we are talking about the precautions to take and here we are talking about the vaccine, so it is different too. (FGD 7)

2.4 RECOMMENDATIONS & CONCLUSION

2.4.1 SUMMARY OF THE FRENCH-SPEAKING AND NON-FRENCH SPEAKING PARTICIPANTS' PERSPECTIVES REGARDING THE GENERAL ACCESSIBILITY OF THE INFORMATION

What barriers do French-speaking and non-French-speaking participants from disadvantaged socioeconomic backgrounds face in accessing and understanding the information?

The two barriers to accessing and understanding information most frequently mentioned by the focus group discussion participants - whether they are from the group of French speakers from disadvantaged socioeconomic backgrounds or from the group of people who speak little or no French from disadvantaged socioeconomic backgrounds - are, on the one hand, **the excessive amount of information circulating** and, on the other hand, the fact that **this information is very often contradictory**. With regard to the vast amount of information circulating, participants mention difficulties in sorting out this information and more specifically in distinguishing between what is true and what is false. Many people highlight that they feel **completely lost** regarding the information. Among them, several **people mention that they no longer look actively for information or even that they avoid any information related to COVID-19** because the important flow of information makes them feel anxious. According to some participants, the information **that is disseminated has become increasingly confusing** over time, especially with the frequent change of measures to be adopted and since the arrival of vaccines. The existing differences between the different regions and levels of power in Belgium would have contributed in making this information unclear and confusing. In addition, it is also pointed out by some participants that the information is sometimes **too complex**.

On the other hand, it was also evidenced during the focus group discussions **that most participants still look actively for information, and in particular for certain more specific information**, for example on vaccination or on how to concretely implement barrier measures in their living environments. Indeed, many questions on this subject were raised by the participants during our talks. Participants therefore have a need to be informed, but it would seem that the information they receive is either too general and not concrete enough, or does not meet their needs, or is too complex to understand and perceived as contradictory. This suggests that, on the one hand, more **quality information that meets their needs should reach them** and, on the other hand, that they should be **given tips on how to sort out the large flow of information** that reaches them, especially as feeling confused and overwhelmed makes them particularly vulnerable to fake news as was reported. As far as the non-French speaking people are concerned, these reported to adopt a strategy of comparing the information delivered in Belgium to that delivered in their home countries, in order to make their minds, make sure they get things right, etc.

Through which channels do French-speaking and non-French-speaking participants from disadvantaged socioeconomic backgrounds get information?

The focus group discussion participants from these two target audiences reported to get their information mainly from television and social media. **On television**, they mostly get information from the news and press conferences. People who speak little or no French mostly watch Belgian television channels to get information about the measures. Nevertheless, the speech rate sometimes seems too fast for them to follow the information properly. They supplement this information with other more specific information which they access via their countries of origins television channels. This more specific information focuses for example on how a vaccine works,

how to strengthen the immune system etc. French-speaking people from disadvantaged socioeconomic backgrounds reported watching local TV channels, such as Télésambre for the Charleroi region.

Regarding **social media**, the participants indicated that they get information via Facebook, Messenger, Twitter, WhatsApp and YouTube. However, we found that not all participants were comfortable with digital technologies. In particular, the older people in our groups had limited access to the internet. Most of them had a smartphone, but they were only partially able to use it. More specifically, these participants mentioned being able to passively receive information and possibly share it but to not be able to actively search for information. One participant even mentioned not having access to the internet or television at all. People facing the digital divide seem to be slightly more numerous in the focus group discussions held in Wallonia than in Brussels. In addition, non-French speakers also seem to be slightly more proficient with digital tools than French speakers, which may be related to the fact that they might need to use these tools often to communicate with their families and relatives in their countries of origin but also because they seem to frequently use their phone as a translation tool. But these results are not sufficiently clear for us to draw any conclusions at this stage. Therefore, this is an issue that would require further research before any conclusions could be drawn. Those people who had no or limited access to the internet and digital technologies often mentioned depending on acquaintances, for example their children or a friend, to access certain information circulating through these channels.

Information was also said to circulate by **word of mouth** among these two types of audiences. It is often in informal discussions that people can express their feelings, share information and debate it. This gives them the opportunity to form their own opinions and to take ownership of the information. The organisations that hosted us in the focus group discussions constitute, or would constitute if it is not already the case, according to several participants, interesting spaces for discussing COVID-19 related issues. Participants who speak little or no French mention getting information from **intermediaries**, often with a better command of the French language than themselves, such as their neighbours, some friends or their children or other family members. Several participants also mentioned receiving information and advice from their families still living in their country of origin. In addition, many participants in both groups mentioned getting information **from their GP**. Some of them said who particularly appreciated talking to their doctor, explained that this was when they felt their doctor was supportive and open to discussion and not pushing them to take one position or another, especially in relation to vaccination.

Moreover, several participants, but not the majority, mentioned sometimes searching for information on specific **internet pages**, but most of them stated that this is not the first channel on which they would look for information. In addition, none of the participants in the various focus group discussions mentioned having ever visited the federal government website www.info-coronavirus.be. It should be noted, however, that a few of the focus group discussion participants claimed to use federal government applications that they would have installed on their smartphones.

With regard to **trust in the different sources of information**, it should be underlined that the vast majority of the participants mentioned trusting experts, as well as their doctors and the social workers with whom they are in contact in the organisations that hosted us for the focus group discussions. On the contrary, most participants declared to have no or little trust in policy

makers. This distrust would have increased over time, as policy makers would adopt a discourse that is considered by some to be more and more injunctive and paternalistic. This was particularly pointed out in our focus group discussions with French-speaking people from disadvantaged socioeconomic backgrounds. More generally, we have noticed a real **suspicion towards the government**, sometimes nourished by fake news and conspiracy theories circulating among these target groups. However, among these policy makers, some figures are more appreciated than others, as was mentioned in particular by some French-speaking people from lower socioeconomic backgrounds. More explanation will be given about it in the next section regarding the form. In addition, many participants were also cautious of information circulating by word of mouth and on social media. Some participants said they only trusted "themselves", which illustrates the need for them to form their own opinions, particularly in a context where there is a lot of information, sometimes contradictory, circulating.

2.4.2 SUMMARY OF THE FRENCH-SPEAKING AND NON-FRENCH SPEAKING PARTICIPANTS' PERSPECTIVES REGARDING A SET OF SPECIFICALLY ADAPTED PRODUCTS

While in the first part of the focus group discussions we asked the participants some more general questions, in the second part, as explained in the methodology section, we focused on presenting certain tools to the participants in order to obtain their opinions. Regarding the urgent communication tools, we presented a brochure and two audio messages, one in natural voice and the other in synthetic voice. The vast majority of the participants considered that the brochure was clear as a whole. They were able to re-explain the three different messages and/or express an opinion on them. It should be noted that the fact that the content of the brochure was already known to all participants may have influenced these results, but that the overall form - short sentences and images - seemed to suit the participants. The brochure was particularly appreciated by people who spoke little or no French, as it was simple and very clear for them. Some of the latter mentioned that they preferred a version with text in both their mother tongue and in French, while others said that the translation of the sentences into their mother tongue is not required as the brochure is very clear. The fact that the images tended to be self-sufficient was highlighted as positive by this audience. However, although the message seemed clear to most of the participants, the numerous reactions, especially concerning the last image on the 1.50 distance, revealed a difficulty in implementing the recommended measures in their living environments. Similarly, some focus group discussion participants, particularly in the French-speaking groups, mentioned that the brochure contained too little information. We conclude that ideally this brochure should be accompanied by information explaining how to concretely implement the recommended measures.

A few comments were nevertheless made by some participants in order to improve the brochure, and these mainly concerned how the characters were depicted. Several participants, and almost all the facilitators or French teachers from the organisations that welcomed us, both in the groups of non-French speakers and French speakers, questioned the choice of depicting characters with certain specificities (elderly people, black people, blind people, etc.) rather than offering more universal images. According to some participants, on the one hand, this could contribute to reinforcing certain stereotypes and, on the other, it could lead to a form of misunderstanding of the message. For example, very few participants could identify that the character in the last image was a blind person. Most people thought it was an elderly person. However, the fact that the blind person is standing 1.5 metres away from a young person could

be confusing and lead some people to believe that young people should keep their distance from older people. Secondly, the beard of the same character in the third image (blind person) was mistaken by some participants for a mask, which also led to some misunderstandings. More generally, the fact that the characters have so many details was thought to distract from the main message.

When we asked the participants if they would like to share these brochures with acquaintances or relatives, some of them, mainly from the French-speaking target group, mentioned that they would not do so because this type of material already exists and people tend not to look at it anymore. Other participants, more numerous among the non-French speakers, mentioned that they would like to share it through social media or by sticking them in their apartment building. They also suggested putting them up on walls in public spaces such as in the municipality or in schools. Finally, it was suggested that the brochure be distributed by post services and dropped in letterboxes directly.

The audios were probably the type of material that was least appreciated by the participants in general. The first audio seemed unclear to the vast majority of them, particularly because of the speed of the speech but also because the person was "eating her words", according to some participants. It should be noted that the person who spoke in this first audio was not a native French speaker, which probably contributed to this difficulty in understanding. It was suggested that French teachers should be called upon to produce these audios, particularly as they are used to having to express themselves very clearly in order to be understood, including by people who speak little French. Some of them also mentioned that they found difficult to maintain their attention throughout this audio, which was sometimes considered too long. The second audio was considered much more understandable than the first one by all participants mainly because of the slower speed of speech. It was also, for this reason, preferred by the majority of participants. A smaller number of participants, however, pointed out that the voice was "robotic" and unpleasant. The parts where the voices spelled out letters (when spelling the websites' links) in both audios were considered the least understandable. In the groups with French-speaking people from low socioeconomic backgrounds, it was pointed out that this type of material, especially when it is not accompanied by images, may cause anxiety. For some participants hearing this audio even evoked images of war or fascism. It was also said that the tone of voice of the audio files was injunctive, which was considered particularly unpleasant for some participants.

With regard to the still frame that came with the audio, most people agreed that this was a plus. However, this image was not clear enough to all participants. The fact that it was crossed out made it particularly difficult to understand. One participant asked, for example, whether the fact that the picture was crossed out meant that the coronavirus was over. Moreover, it was mentioned by some participants that without the accompanying text, the image would have been incomprehensible. In addition, the participants generally found it positive that the .be logo was on this tool, but almost none of them related this logo to the federal government. For most of them, it indicated that the information concerned Belgium. For several of them, this logo meant the end of the Belgian Internet URL. Finally, when asked if they would share this audio file with relatives, some said they would be happy to do so via Facebook or WhatsApp while others mentioned that they would not share it if it was information related to COVID-19.

With regard to durable communication, several versions of the same video were shown: in French without subtitles, in French with subtitles, in French with subtitles in Turkish, in Arabic with

subtitles in Turkish The participants generally appreciated this video. But it should be noted that this tool is the one that generated the most discussion on its content. We noticed that the participants had a lot of questions about vaccination and it was sometimes really difficult to reframe the discussion on the form. But we still managed to get some interesting information. While French speakers mostly preferred the video without subtitles, non-French speakers mostly preferred the video in French either with subtitles in their mother tongue or with French subtitles. It should be noted that we only presented the video in spoken Arabic in two groups. In the first group, the Arabic of the video was not the Arabic spoken by the participants, so we could not get their feedback on this. In the second group... the participants declared they understood the entire content of the video, either with or without the Arabic subtitles. More generally, the reason given by the French speakers for preferring the video without subtitles was that the subtitles tend to overload the video. On the contrary, non-French speakers said that it is preferable to have subtitles because these supports the spoken text and allow them to better understand the video in French. However, some people mentioned that the written text is not mastered by nor accessible to all the people in their communities. It was mentioned that for people who do not read at all or do not read French, audio in the mother tongue would be preferable. Nevertheless, the images were considered to be generally clear and helpful in understanding. However, as with the brochure, it was considered preferable to depict more universal, and less detailed, character images, as those used in the video may cause some misunderstanding and distract from the main message. Moreover, the large size of the vaccine syringes in the video was considered frightening by one participant.

Moreover, it should be noted that we encountered many technical problems with this video. On the one hand, several times the loading time of the video was abnormally long, which meant that in several focus group discussions we could only show part of the video. Secondly, it was not always easy to change the subtitles or the language of the video because it sometimes froze when we tried to do so. Thirdly, during a focus group discussion, we clicked on the Arabic language but according to the participants, the video started in another language than Arabic (they said it was in Turkish). When we asked the participants to search for the video on the website, from the link we showed them, some of them, probably a little more in the French-speaking groups, mentioned that they felt uncomfortable with this exercise and could not do it because of their poor command of technological tools. Others had a smartphone and tried to search for the video on the federal government website but very few of them managed to find it on the website without our help. They were very rapidly lost in the flow of information contained on this web page. Moreover, when they did manage to access the video, often with our help, they had difficulties in finding the right video in French, especially because the first video on the website is the one in sign language. And then, they encountered the same difficulties that we ourselves encountered in loading the video, changing the language and the subtitles.

Before concluding the session, participants were asked to rank the three tools presented in order of preference. The participants as a whole preferred either the brochure or the video. The participants who preferred the brochure chose this tool because they considered it to be the simplest and clearest of the three. Participants who chose the video did so mainly because they preferred the audiovisual form and/or because the video form allows to provide more information than the brochure. Audios, finally, were ranked last by most participants.

Finally, a more general result that came up very frequently in most of the focus group discussions is that participants **need to obtain information that is rather reassuring or at least does not**

exacerbate their feelings of fear and anxiety. The crisis has indeed been and still is very difficult for these audiences. We were particularly struck by the large number of testimonies we collected expressing a certain psychological distress. The form used in the different tools should therefore not be too alarming according to several participants. During the beginning of the crisis, the images used were often shocking and the tone of voice in the audio worrying. Thus, for example, among the people providing information, some participants mention that they **preferred to receive information from people whose tone of voice was rather reassuring and who seem to be compassionate**, particularly through their facial expressions. Some participants say that they **do not like audios**, especially when those are not accompanied by images, as this type of tool and the types of voices used **would induce a feeling of anxiety**. And finally, one participant says that she would **rather use text than images** because this would be the least worrying form.

2.4.3 CONCLUDING REMARKS

General recommendations have emerged from the focus group discussions with French-speaking and non-French speaking participants from disadvantage socioeconomic background/with a low literacy level:

- It would be interesting to strengthen the health literacy of the target audiences and in particular to implement actions that provide them with skills to sort out what is good information and what is not in the flow of information they receive.
- **The setting up of discussion spaces** where these audiences are not passive recipients of the information, but can debate it as they receive it, and are empowered to take ownership of it **are very important**.
- It is advisable to **disseminate information via regional and local television stations**, which are among the most consulted channels. More generally, it is interesting to multiply the channels for disseminating information (social networks, newspapers, radio, internet, etc.).
- It is recommended to implement actions aimed at strengthening the digital literacy and/or compensate for poor digital literacy, especially in the elderly.
- In a future research, it might be interesting to **test these forms of products with information content that these publics does not already know**, in order to deepen our evaluation and understanding of their accessibility. Also, to limit the risk of bias, the different products that are compared should be about the same type of contents.

Some former recommendations, made previously in PART 4 of this report, were once again highlighted during the focus group discussions with end-users:

- It should be avoided to produce tools whose form and/or content induce feelings of fear and anxiety among these audiences.
- **Injunctive messages should be avoided** as much as possible in the crisis communication.
- It is advisable **to use little detailed images of characters** in communication tools. Moreover, the images of the characters should be as universal as possible. **Neutral pictograms** may be a solution to **prevent from misinterpretation** of the pictures and avoid stigmatization of certain groups of the population.
- Call on **native speakers for the audio (or video) language** is recommended to produce the audio files in natural voice.
- It is recommended that information be very simple in form and clear in message. This simple information should be accompanied by additional, concrete information, adapted to the needs and life realities of these audiences, preferably given by intermediaries.

- The **federal government's website should be made more accessible** and the sections linking to the materials should be more clearly identified, to facilitate the navigation of the website.

3 FOCUS GROUP DISCUSSIONS WITH PEOPLE WITH HEARING, OR HEARING AND VISUAL IMPAIRMENT: EVALUATING STRATEGIES WITH END-USERS IN BRUSSELS AND WALLONIA

3.1 INTRODUCTION

This chapter of the report presents the research activities carried out in Brussels and Wallonia by **UCLouvain** in which additional focus group discussions were conducted with end-users who have sensory impairment to evaluate the COVID-19 communication strategy by the federal government and the accessibility of specific communication products. The communication materials used during the focus group discussions, were developed as part of the experimental product development phase of this project. See PART 2 for more details on this phase and see below for more information on the developed products for discussion in the focus group discussions.

Following the meetings and roundtable discussions UCLouvain had with intermediaries of people presenting sensory barriers, it was decided that the actual end-users might not have been represented enough in the discussions. Therefore, following a request from the partner organisations in our advisory board, **additional focus group discussions** were set up with people presenting **sensory barriers** and more specifically people with hearing impairment, people with visual impairment, and people with both hearing and visual impairment. With the collaboration of three partner organisations⁵⁷, we set up three distinct focus group discussions in October and November. Unfortunately, due to an insufficient number of participants, the focus group discussion with people with visual impairment, which was due on November 8, had to be cancelled.

In this report, the barriers encountered by these specific end-users and their facilitators are reported in regard to COVID-19 governmental crisis communication, as well as their opinion and preference regarding the federal government's products. Based on focus group discussions, recommendations are formulated in order to improve the communication aimed at people who can experience sensory barriers.

This chapter is based on the content of the following project deliverable report:

Le Boulengé, O., Lambert, H., Doumont, D. & Aujoulat, I. *Internal report on insights of focus group discussions with people with hearing or hearing and visual impairment in Brussels and Wallonia. Report on Work Package 3.* 15 January 2022.

Hélène Lambert and **Océane Le Boulengé** are equal first authors. They informed and recruited the participants, organized and moderated the focus group discussions, analysed the data, drafted the results and later finalized the report;

Dominique Doumont advised on recruitment of the participants, finalized the selection of materials, translated and adapted the interview guides, moderated the focus group discussions, contributed to the analysis of the collected material and critically revised the report;

⁵⁷ Aya asbl, La Lumière, FdSSB – Les Pissenlits

Isabelle Aujoulat supervised the work at the different steps, drafted the methods section of the manuscript, commented on the analysis of the collected material, critically revised the draft report, and supervised its finalization.

3.2 OVERVIEW OF THE SELECTED MATERIALS PRESENTED TO THE END-USERS WITH HEARING-IMPAIRMENT

Based on the results of the previous steps of the project, a set of newly created or adapted materials was selected by several members of the research consortium (see PART 2 for details), and provided to the UCLouvain team to be used as a basis for the focus group discussions.

Based on prior testing of (similar) products during roundtable discussions (see PART 4) with intermediaries of the vulnerable populations and a subsequent internal analysis and discussion, **a set of materials was selected to be tested** during the FGDs. These were:

3.2.1 PRODUCT 1: A VIDEO ON VACCINATION

This short video explains how the COVID-19 vaccine works; the information is provided using audio and subtitles in different languages as well as audio description and sign language (see Figure 128 for a print screen of the video).

This video was designed to let the user freely choose the language that is used to speak out the text as well as for the subtitles. <https://www.info-coronavirus.be/en/vaccination-video/>



Figure 128 Print screen of the video on vaccination in LSFB with French subtitles.

Two versions of the video were presented to the participants during the focus group discussions. The first version was one with a LSFB interpretation only and in the second, French subtitles were also added.

3.2.2 PRODUCT 2: A ONE-PAGE BROCHURE (INFOGRAPHIC) ON 3 ‘GOLDEN RULES’

In this one-page brochure (Figure 129), three basic rules regarding COVID-19 are recalled:

- (1) “Stay at home if you are ill”;
- (2) “Wash your hands frequently”; and
- (3) “Keep a distance of 1.5 meters from other people”.

The brochure contains pictures and text (short sentences in Easy Language) and is available in different languages.

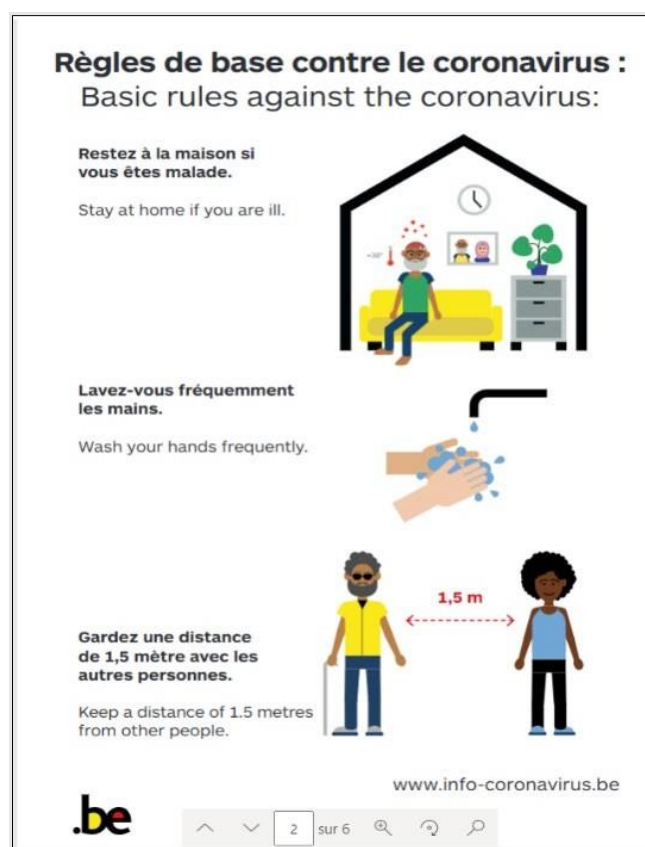


Figure 129 Brochure on golden rules.

3.2.3 PRODUCT 3: A STILL FRAME AND THE FEDERAL GOVERNMENT’S LOGO

As mentioned in the main report, audio files about the measures were developed in different languages. They are accompanied by a still frame that includes the government’s logo, a picture of the COVID-19 virus, a title and a link to the federal website (Figure 130). For obvious reasons, only the still frame and the logo were presented to the participants from the participants with hearing impairment.

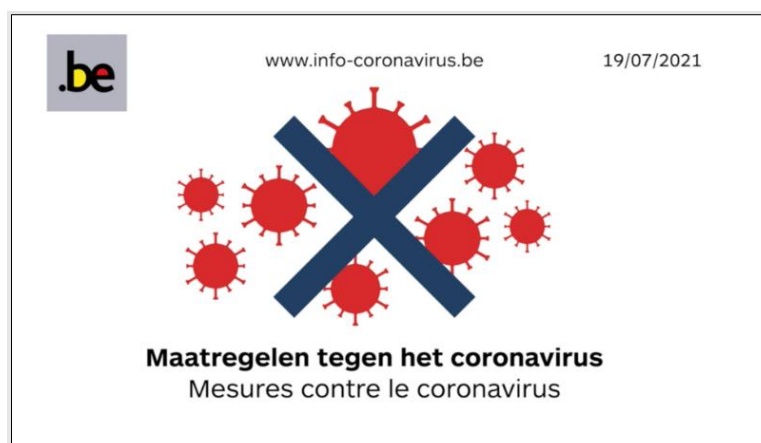


Figure 130 Audio on new measures.

3.3 METHODS

3.3.1 RECRUITMENT OF PARTICIPANTS AND SAMPLE CHARACTERISTICS

In addition to the eight focus group discussions organised with French and non-French speaking people with lower socioeconomic backgrounds and poorer health literacy, as we felt that the end-users with sensory impairment had been under-represented in the former roundtable discussions with intermediaries (cf. PART 4), we were aiming for an additional two focus group discussions with people with sensory impairment. Those were organised with three of organisations part of the advisory board:

- **Aya asbl** offered to organise a focus group discussion with people with hearing impairment mostly from the Muslim culture;
- **Les Pissenlits-FdSSB** offered to organise a focus group discussion with people from low socioeconomic backgrounds, most of whom have hearing impairment. (It should be noted that the results of this group were also presented in our main report (cf. Chapter 2, November 2021))
- **La Lumière asbl** offered to set up a focus group discussion with people who were both blind or partially sighted AND deaf or hard of hearing (or deaf and blind people), as this doubly disadvantaged public had emerged as a particularly vulnerable group in the previous steps of the project, which was confirmed during the meeting we had with our advisory board to organise the focus group discussions with people with sensory impairment.

The characteristics of these focus group discussions are presented in Table 28.

We had also intended to organise a focus group discussion with people with visual impairment. To do so, our partner organisations had advised us to organise a focus group discussion in Brussels, in a place close to the central station so that it would be accessible to people with visual impairment. We booked a meeting room and launched an online invitation that was spread through the partner organisations' social networks. Unfortunately, this event had to be cancelled.

Focus group number	Number of participants	Spoken languages	General characteristics	Region	Products presented
Focus group discussion 1	N= 6	French	People with hearing-impairment (deaf).	Brussels	Video with French sign language interpretation without subtitles and with subtitles, one-page brochure, still frame and the federal government's logo on the audio.
Focus group discussion 2 (also presented in our main report in Chapter 4)	N = 9 (of which 6 with hearing impairment)	French	Mixed group of hearing and d/Deaf people from disadvantaged socio-economic backgrounds.	Brussels	Video with French sign language interpretation without subtitles and with subtitles, one-page brochure, still frame and the federal government's logo on the audio.
Focus group discussion 3	N= 5	French	People with hearing AND visual impairment from Belgian origin.	Wallonia	Due to their double impairment, no products were presented to this group

Table 28 Summary of the characteristics of the focus group discussions.

It is to be noted that after careful considerations of possible implications, based on a strong suggestion issued by our advisory board and considering the socioeconomic vulnerability of the target populations and the efforts and time they would dedicate to the project, a decision was made to offer a voucher of 20 euros from a chain of shops. This voucher was given to each participant at the end of the focus group discussions, and had not been announced before. It should therefore be considered a gift to thank the participants, and not an incentive.

3.3.2 DATA COLLECTION AND ANALYSIS

The methods and processes for data collection and analysis regarding these additional focus group discussions is the same as for the French and non-French-speaking participants from disadvantaged socioeconomic backgrounds presented in Chapter 2. Therefore, in this Chapter, we only present the differences, in which more detailed information can be found.

The focus group discussions were held in a place already known by the participants, in the presence of a trusted intermediary who facilitated the contact with the research team, allowing a relation of trust to be established. Each focus group discussion was moderated by two members of the research team, in the presence of the representative of the partner organisation. In both groups, a LSFB interpreter and a moderator were present.

For the focus group discussions with participants with hearing impairment, general questions were asked regarding the way they got informed during the crisis, the barriers and facilitators they encountered, and more specific questions were asked regarding the accessibility of the products (video, flyer, images accompanying audio) presented.

For the focus group discussion with D/deaf and blind participants, general questions were asked regarding the way they got informed during the crisis, the barriers they encountered and their

facilitators. Lastly, they were asked about recommendations they would like to issue to make governmental communication more accessible to them.

A person from the host organisation was present at each of these focus group discussions to co-facilitate them with us. Sign language interpreters were also present at all focus group discussions.

3.3.3 ETHICS

Prior to recruiting the participants for the focus group discussions, **ethical clearance** was sought for all partners by the coordinating team (Prof. dr. Mieke Vandenbroucke, UAntwerpen) from the Ethics Committee for the Social Sciences and Humanities (EASHW) at the University of Antwerp.

The activities for the focus group discussions conducted in Work Package 3 received a positive clearance under number SHW_21_77. In accordance with an addendum to the ethics protocol outlined in the EASHW application for these activities, participation in the focus group discussions proceeded with **oral consent**, and the names of the participants remained unknown to the research team.

The UCLouvain Ethics Committee was informed of the project. As this project does not fall under the Law of 2004 regarding Human experimentation, the ethical clearance received from the UAntwerpen ethical committee was deemed sufficient, and no further approval was sought on the French side of the research activities.

3.4 RESULTS

3.4.1 FLOW OF CRISIS COMMUNICATION AND CHANNELS USE

3.4.1.1 FACILITATORS AND BARRIERS PERCEIVED BY PARTICIPANTS WITH HEARING IMPAIRMENT

A. CHANNELS THROUGH WHICH PARTICIPANTS GET INFORMATION

Participants with hearing impairment get information through the same channels as hearing people, but they have access to less information because not all information is adapted for them. They get their information mainly **from television** and from **friends and family**, including hearing people who know sign language, but also, to a lesser extent, from social networks. Indeed, most of them watched the federal government's press conferences that were adapted in French sign language (LSFB).

P⁵⁸: We watch the news all the time. [...] the television news is our only main source. (FGD 1)

They declared preferring some tv channels to others due to the use of visual information by some that make the information easier to understand. Other channels did not use visual content, making the understanding of the message more difficult for people with hearing impairment. This is the case even when there is no interpreter but the visual message is clear.

P: And the RTL news is more visual, there are many more representations that facilitate comprehension and this is lacking at RTBF. Ah, there is no interpreter at RTL. I understand things better at RTL because of all the illustrations... (FGD 1)

They also declared getting more detailed information via their relatives and especially their children. The latter, often people without hearing impairment, reexplain to their parents what they understood from the Government's communication.

P: I asked my son who then re-explains me, my hearing son re-explains me a little more in detail. (FGD1)

P: And it's my daughter too who every time went on the internet and came back to me to tell me "Here, be careful, you mustn't do this, you mustn't do that, there's a vaccine" (FGD 1)

P: My daughter in relation to the side effects, social networks, she watches a lot and all that, that's how I get information too, yes (FGD 2)

B. TRUSTED SOURCES OF INFORMATION

Participants mentioned having little confidence in the experts and politicians which they feel have failed to inform correctly the people with hearing impairment, making it difficult to trust them. They also mentioned that frequent changes and contradictory information from the government since the beginning of the pandemic was as a cause of distrust in the official messages.

P: [...] there is a lack of confidence with the government that does not make its task of informing us and then there are people who refuse to be vaccinated because they hear that "such and such reacted badly, that there were paralysis". When they encounter this kind of case and it is never mentioned on television, then there is a confidence that is shunned. (FGD 1)

⁵⁸ P = Participant ; A = Animator

P: Too much change, too much at once, too irregular. It's a case of neither yes nor no. Also in relation to the vaccine, different opinions on the vaccine, we know that there is a lot of change. A lot of change in opinions (FGD 2)

P: So, sometimes we got a lot of information from the television, from the newspaper and all that, and then sometimes it depends, maybe it's not that and we wait for the 'codeco', at one point it was almost every Friday, something like that, we listened to everything that had been said, but afterwards, when you take all that in a nutshell, you ask yourself a lot of questions, you say to yourself that there are things that don't make sense. (FGD 2)

Therefore, when we asked them who they would trust to get informed correctly, most of the participants declared they believed in the organisations that represent them, such as the non-profit l'Escale or Les Pissenlits.

P: I trust Escale. [...] So, it's a deaf person in fact and so the information that is communicated is adapted to the deaf public, because the person knows what it is. (FGD 1)

For some participants, their GP is the most trustworthy source of information, followed closely by their hearing-relatives.

P: I trust my attending GP. So I trust my doctor, when I need information, I go to see him. [...] I trust my family. My family too. (FGD 1)

Throughout our focus group discussions with participants with hearing impairment, we noticed that even more than French-speaking or non-French-speaking people from low socioeconomic backgrounds, deaf people from socioeconomic backgrounds depend on intermediaries to provide them with understandable and tailored to their needs information.

C. BARRIERS ENCOUNTERED IN ACCESSING INFORMATION

First of all, it was mentioned by the participants that at the beginning of the crisis they encountered many difficulties in accessing information because there was little or no translation into sign language available or at least easy to find. They therefore felt particularly lost without really knowing what was happening. Some participants mentioned that afterwards they had to find the right TV channel and time slot to access information in sign language which allowed them to get access to the adapted information.

With regard to the information broadcasted by television, the participants declared facing some difficulties in regard of the adaptations that were made by the government. First of all, they find the image of the interpreter too small, when it is not covered by the channel's logo. In addition, the interpreter's image was placed at the bottom of the screen while the visuals were placed at the top of the screen, which made it difficult to understand the information because the eyes had to keep scanning up and down the screen. There were also technical issues such as the interpreters' image 'disappearing' now and then.

P: [...] the one who interpreted in sign language, his image disappeared from time to time like that during the interpretation. (FGD 1)

In addition, hearing-people speak fast and thus the interpreter, in order not to miss any information, has to sign at the same speed. Only a few people with hearing impairment are able to follow the message at a certain speed and the rest cannot understand the information. According to them, the speed at which people spoke at press conferences and therefore the interpretation itself was often too fast for the majority of them to understand everything. Some participants stated that the fact that they could not go back in the press conference broadcast

resulted in much of the information being missed. This made the information difficult to understand even when it was translated into sign language.

P: In the news, there is, I don't know if you see, the little interpreter on the corner, but you have to know that hearing people, they speak fast and the interpreter, they have to follow the rhythm otherwise they lose the thread so they start to sign very fast and there are deaf people who can follow at this speed and others who don't have the competences to be able to understand and so everything passes over them, they don't understand anything (FGD 1)

Moreover, they told us the subtitles, in addition to being too small and in fonts that are not easily visible, are broadcast too fast making them hard to read entirely. This observation is especially relevant as reading is not easy for most of the people with hearing impairment due to the fact that it is learnt by association of sounds which people with hearing impairment do not have access to (cf. PART 4).

P: When I look at the subtitles, it's impossible because it goes much too fast, the subtitles are very fast so you have to read quickly. For example, I can read at this speed but most deaf people, they take their time to read what is written and if it disappears every five seconds.... (FGD 1)

Lastly, the sign language of French-speaking Belgium was not the mother tongue of some of the participants, which made access to the information even more difficult for them.

In relation to the content of the information, the participants mentioned being confronted to numerous contradictory and changeable information. Some participants compared several sources such as the internet, the press conferences or even their acquaintances and realised that everyone had their personal interpretation of the situation.

P: Me, I watch the TV news and there were several and each one said different things so I didn't understand. So I went on the internet and there too there was different information. And then, afterwards, it is by exchanging with people that I realise that everyone has a different version and I remained confused in all that. (FGD 1)

P: But there were a lot of changes on the measures as we went along. When I watched the TV news, there were all these changes and I didn't understand much either (FGD 1)

3.4.1.2 FACILITATORS AND BARRIERS ENCOUNTERED BY DEAF AND BLIND PARTICIPANTS

A. CHANNELS THROUGH WHICH PARTICIPANTS GET INFORMATION

Focus group discussion participants mentioned that they mainly got their information from their relatives, including by some relatives or acquaintances working in the medical sector:

P: It was more through my husband who had heard things or talked about this or that. (FGD 3)

P: I was informed by my partner's children who are doctors and who were working in one of these hospitals in the middle of a crisis. (FGD 3)

P: I forgot to tell you that I am lucky enough to have a daughter who works in the field of vaccines, biology, and so she gave me a lot of advice. (FGD 3)

The participants were also informed through the association that hosted the focus group discussion, which either gave them information directly, listened to them and allowed them to expose their feelings, or redirected them to other specific services:

P: Well, I was lucky enough to be warned by the club La Lumière from Liège here who gave me a distress number, it's an AViQ number, and I needed this number because during the confinement, my Daisy reader broke down, so when you can't see and you can't read anymore, it's a big problem (...). (FGD 3)

Most participants also followed the news on television, during the press conferences but some of them mentioned that the size of the image containing the interpreter was too small, especially for people who are both deaf and partially sighted:

P: I had the information thanks to the TV. (FG 3) P: Yes. I listened to the TV news mostly.⁵⁹ (FGD 3)

P: I had sign language interpretation, but the window was too small, (...).⁶⁰ (FGD 3)

Finally, some participants mentioned not using the internet at all. Thus, we were able to observe that the digital divide is a reality for a large part of this public. Others mentioned using it from time to time or frequently to get information:

A: (...) How much do you use the Internet?

P1: No, not at all.

A: What about you, Mr. X?

P2: Yes, a lot.

A: Yes, you use the internet a lot.

P3: Me, no, not at the moment, no.

A: Okay.

P3: I'd need to learn but I don't feel like it, I'm not very motivated. (...)

P4: As far as I am concerned, I use it from morning to night. (FGD 3)

Indeed, thanks to a text reading software, connected to their hearing aids, people with hearing and visual impairment can access information on the Internet. In addition, deaf and people with visual impairment can still access visual information that is within their field of vision.

Among participants using the Internet, most of them knew the government website info-coronavirus.be but had never used it to get information.

A: Great, thank you, and thank you for mentioning the government website because that's my next question. Are you aware of this website? Of the fact that there is a website that has been created specifically for the Coronavirus called "info-coronavirus.be"? Mrs. x, did you hear about it?

P: By my husband, yes, but otherwise, that's it.

A: You don't use it at all?

P: No, no. (FGD 3)

P: I know it exists but I don't go and consult it. (FGD 3)

In addition, among all participants, one participant said he found the website accessible: A: Did you use it?

P: I went to see it out of curiosity, yes.

⁵⁹ The person speaking here is blind and hearing impaired. She has the ability to access auditory information through a hearing aid device.

⁶⁰ The person speaking here is deaf and visually impaired. Although his field of vision is reduced, this person is still able to follow a person who is signing if that person is in his angle of vision.

A: And you find the site relevant and accessible, adapted? P: Yes, yes, it is accessible. (FGD 3)

B. TRUSTED SOURCES OF INFORMATION

Most participants reported to trust their relatives, especially if they work in the medical field:

A: And you, did you have more confidence in the people around you or in the authorities?

P: Since I live in the middle of doctors, I have more confidence in the people around me. (FGD 3)

Participants also reported getting information and having confidence in organisations specialised in sensory barriers such as the one that hosted us:

P: La Lumière, when I asked questions to La Lumière, they answered me. (FGD 3)

P: Through the clubs, so La Lumière, the Braille League, Eclat, Club Magnétique, there are lots of them, it's easier. (FGD 3)

These participants mentioned that they would like to be more informed by these organisations in a pandemic context.

One person stated that she trusted herself and her ability to sort out and understanding the information:

P: It's a question of self-confidence, I'm going to say, among other things, it's more a question of trusting myself because, well, apart from listening to contradictions all over the place, believing in experts, believing in ministers or believing in those around you, at some point, you have to make a deduction and know what you can do yourself with regard to the virus. (FGD 3)

Finally, participants also mentioned having more confidence in experts than in politicians:

P: And when I listened to television, I preferred to hear the experts than the political authorities (...) (FGD3)

C. BARRIERS ENCOUNTERED IN ACCESSING INFORMATION

Regarding the difficulties encountered in accessing information, most participants said they felt lost in the flow of contradictory information. Some mentioned that they had given up following the information:

P: When I understood that all the information was contradictory, I gave up listening, so from June, July, I didn't listen anymore, it was no longer interesting for me. (FGD 3)

P: As Mr. X says, it's really by listening to contradictory things all the time that you end up giving up the news. (FGD 3)

P: I gave up listening to the information at one point because it was so contradictory and it seemed to be poorly documented and practically inapplicable. (FGD 3)

Then, one of the main difficulties encountered by this public, is the implementation of the recommended measures in their living environments and within the constraints of their disabilities. First, because of the contagiousness of the virus, people in the public spaces were less willing to help this audience:

P: (...) Already just to put on our mask, it's difficult to know when to put it on and when not to put it on. Then, when we approached someone, I noticed that people would come less readily to me in case of difficulty outside. This was outside. I do not speak about inside the stores, there, it was impossible, nobody understood us. (FGD 3)

Moreover, the distance of 1m50 is very difficult to assess for blind and deaf people and they may touch other people in public spaces. In this situation, the other people would sometimes react negatively and even aggressively:

P: Because let's say we had to keep a certain distance, given the impairment it was very difficult for us in any case to evaluate how far away the person we were addressing or who could address us was, so there were people who reacted very badly in fact when you got too close. There was one who pushed us away. Well, I'm going to say it wasn't easy, it wasn't easy and then every time to explain the fact that you're visually impaired... You're not going to start explaining every time so that was really a handicap as well. (FGD 3)

Another difficulty encountered was related to the fact that at some point people could not be accompanied to enter stores. Deaf and blind people therefore found themselves carrying out activities alone that they were used to carrying out with a companion. They felt very vulnerable and they also sometimes had to face inappropriate reactions of other people in their presence, even if some reactions were actually meant to help:

P: I wasn't the one who went to do the essential shopping. It was my partner who is also hearing impaired and visually impaired. So there was no way of going to a store together. She was going alone, she managed more or less but, very often, she came back being shocked because people approached her on their own initiative, practically by authority, and therefore physically took her and touched her because they could see that she was in difficulty. But she had not asked to be taken by the hand or the arm. And, it's true, that very often she had that. (FGD 3)

Finally, negative reactions were also experienced when this public did not realise that there were queues to enter the stores:

P: Well, sometimes when I went into a store I didn't know that there was a line, a lot of people really addressed me as if I was a shit person, like a nobody and even now I suffer a little. (FGD 3)

As a consequence, several participants mentioned feeling misunderstood by the general public:

P: We are really totally misunderstood by the public. (FGD 3)

The impossibility of respecting the recommended measures led this public to feel particularly vulnerable, for example regarding the possibility of contracting the virus:

P: So, we felt very quickly, in our situation, we felt very quickly very exposed, very vulnerable. I felt this same vulnerability when I was alone back in Brussels, I'm talking about the summer holidays in 2020, when I was taking the metro. I didn't always know where the doors were, how to open the door, so I was obliged to touch everywhere. I was looking for either a handle or a button, so I was putting my hand absolutely everywhere and people seeing me in difficulty, took my arm by authority. (FGD 3)

More generally, the environment around them became more hostile for them during the pandemic, compared to before the pandemic. This has led some of them to become isolated:

P: As the lady said, people didn't have a human feeling about our double handicap and it's true that we were totally rejected, that's it. It was very complicated. And in the end, I tended to close myself up more and more and to stay at home and not go out anymore. (FGD 3)

As a consequence of this isolation, some of them lost their habit of moving around and therefore part of their autonomy:

P: I have had my walking stick for three years now, I have followed locomotion sessions at the Canne Blanche. And I admit that since the beginning of the confinement I feel completely lost. It's

been a little more than a month since I restarted my locomotion sessions again to recover my bearings that I had totally lost. (...) (FGD 3)

Thus, several participants mentioned that they felt they had “regressed” during the pandemic.

However, participants noted a difference between those living in rural areas and those living in urban areas. The former seemed to have felt more supported and understood by their neighbourhood and wider circle than the latter and therefore to have encountered less difficulties:

P: Well, I'm much less negative. I am positive, that is to say, it is perhaps because I live in the countryside and in my village, everybody knows me, I know everybody so I do a little bit what I want. When I have to go shopping in a city, I am accompanied by my wife, I was able to enter all the stores with the white cane of course. I've never had any trouble. (FGD 3)

In addition, a difference was also noted between those who had been living with their disability for a long time and who were therefore more accustomed to dealing with different types of situations and those whose disability was more recent:

P: I think that Mr. X has quite a bit of experience in deaf and blindness. It's true that I've myself been struggling for three years in dealing with double handicap, let's put it that way. (FGD 3)

3.4.2 PREFERRED FORMS

3.4.2.1 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH PARTICIPANTS WITH HEARING IMPAIRMENT

As mentioned previously, the various tools - video, flyer, and images accompanying the audio - were only presented to people with hearing impairment and not to people who have hearing AND visual impairment (D/deaf and blind).

A. THE VIDEO ABOUT THE VACCINATION PROCESS

Two versions of the same video were presented to the participants of the focus group discussion. The first one was a version in Belgian-French sign language (LSFB) and the second one was the same with subtitles. The participants were asked to choose their favourite and were also asked to comment on what was clear and what was not.

P: For my part, the information is clear, professional and there is no inconsistency, I understand very quickly, ... but there are different profiles of deaf people; some of us find it more difficult to understand the messages (FGD 2)

Generally, they thought both versions of the video were clear and understandable. They mentioned the images being self-explicit enough although they also emphasised that people with hearing impairment are sensitive to images and are able to understand them very easily without the necessity to add text.

P: I would still like to point out that in this video there is a third thing that comes into play is the visual, the visual aspect, there are illustrations to help understand. Deaf people, they love that, seeing illustrations on the side. (FGD 1)

P: I can figure it out with the pictures. Yes, the drawings don't do all the work but you can manage with them. [...] Yes, we are more sensitive, it's like deaf people, sorry, like cartoons, if we watch a cartoon, we will understand or sometimes even movies, just by watching, we are able to understand what's going on. (FGD 1)

The participants valued that the signing in LSFB was interpreted by a person who is also deaf or hard of hearing which makes the message more accessible. Indeed, they highlighted the importance of working with interpreters with hearing impairment as the hearing-interpreters have a slightly different type of signing which could lead to misinterpretation of the communication.

P: Ah, the interpreter was deaf too, it was a deaf person interpreting. [...] The signs were good, the signs were good, the signs were good (FGD 1)

However, the participants declared they often noticed a lag between the signing, the subtitles and the images, perceived as disruptive, resulting in confusing the message. Therefore, they highlighted the necessity to pay attention to the synchronization when editing the videos in order not to lose information.

P: I was also annoyed, in fact, the interpreter signs very late. [...] It was quite frustrating, the interpreter signs late, sometimes the illustration is there, the voice is there and the interpreter is still busy explaining what is said before, yes, that's a bit... [...] There is a gap, yes. (FGD 1)

P: Those who do the editing afterwards, they should be careful. And it happens even in the signs, sometimes the subtitles are very late and she notices "wait, the scene has nothing to do with the subtitles that are given" [...] It would be necessary to have someone who is in charge of the direction so that it is... A third person who is able to understand the sign and what is being said to know whether or not it is tuned in or not. (FGD 1)

In regard of the subtitles, the opinions differ. While some participants found them helpful and preferred the video with written text, others perceived them as distracting because people generally need more time to assimilate text messages than spoken messages.

- P: When there are only subtitles, we will take more time to assimilate what is said, whereas when a person signs, it will really be from the word go, we will directly understand what is said. (FGD 1)*
- P: So everyone said two [editor's note: with subtitles] but she said one because having one person signing and then at the bottom the subtitles, it divides the attention and therefore it's not ideal. [...] If there is no interpretation, then yes, I will do it with subtitles. (FGD 1)*
- P: For me, the video goes too fast and I can't read the subtitles at the same moment (FGD 2)*
- P: It's complicated to watch both at the same time (subtitles and sign language), it's better to be able to choose between the subtitles or the sign language ... [...] I prefer to concentrate on the sign language (FGD 2)*
- P: It's good to have the option between the two, but ... depending on people's profiles (FGD 2)*

Nonetheless, they agreed on the fact that subtitles are important for people who do not have access to the sign language, especially elderly who lose their hearing sense due to old age thus do not know how to sign or understand LSF. However, they declared that the subtitles could be improved. As of now, they are in a light font on a light background which makes it difficult to read for many people. They thus suggest that they be written on a dark banner in order for the contrasts to be respected. Ideally, the participants would like to be able to adapt the subtitles to their preferences by choosing the font size and colour, and the colour of the background.

- P: A problem we noticed with the subtitles is that putting the subtitles in white like that but it's not possible because there are different colours that appear, she says the ideal would be to have a black layer... [...] A black banner and the writing above in white. (FGD 1)*

In addition, we asked the participants if they would share this video with their relatives and how. As only a few of them were comfortable with the internet, they mentioned the importance of broadcasting such products through diversified channels: television during the advertisements, in hospitals' and GPs' waiting room, etc. Moreover, they highlighted that the organisations in which they go usually share these types of initiatives with their public, thus it might be interesting to inform them of the existence of such materials.

- P: This is something we do with the association. When we notice a quality video, we broadcast it directly. [...] It would be nice if it was broadcast to deaf associations who themselves could relay it to deaf people directly, so, I guess through social networks. (FGD 1)*
- P: Here, in Les Pissenlits, we learn new information (about COVID-19) and it might be interesting to inform others of the existence of such a place where you can have access to information (website, videos, ...) (FGD 2)*

Lastly, the link to the federal government's website (www.info-coronavirus.be) was given to the participants and they were asked if they could navigate through their browser to find the video. None of the participants had ever been on the website and they declared they usually get access to the information it contains via their children or the organisations working with people with hearing impairment.

- A: At least three people confirm that you have to go through someone else to be able to get the information from these kinds of sites. (FGD 1)*
- P: That's how it's better, that the associations disseminate themselves. (FGD 1)*

B. THE ONE-PAGE BROCHURE ABOUT THE 'GOLDEN RULES'

A one-page brochure about the 'golden rules' to follow in order to limit the spread of the coronavirus (1) "Stay at home if you are ill"; (2) "Wash your hands frequently" and (3) "Keep a distance of 1.5 meters from other people" was shown to the participants and their opinion about the accessibility of this material was asked. The following observations are derived from their reactions.

As mentioned in the previous section, people with hearing impairment tend to understand images easily without needing text to explain the content. Therefore, the brochure seemed clear and understandable for all the participants. This might not be the case for people who become deaf due to age. However, the images were considered too small in all three pictures.

P: Even in general, if you get a paper with an illustration but it's in lower case, you don't have to. (FGD1)

In addition, as people with hearing impairment tend to be more sensitive to images, the participants had a few remarks regarding a lack of information contained in the brochure. The first picture seemed clear for everyone and the participants understood the message without any problem. The two other images ((ii) 'Wash your hands frequently' and (iii) 'Keep a distance of 1.5 meters from other people') however raised concerns and remarks regarding the details. For the picture about 'washing their hands' a few participants suggested that a pictogram of a soap or of hydro-alcoholic gel be drawn to inform people on how they could wash their hands efficiently.

P: They don't say that you have to put soap here. They [people with hearing impairment] are very picky, mind you.

C: They should have, in your opinion, made the distinction with soap and gel maybe? P: Yes. [...] Soap. [...] She also says a soap. (FGD 1)

Regarding the third image (keep a distance of 1.5 meters), concerns were raised about the absence of a mask. The beard of the man was mistaken for a mask, as was also the case for the other focus group discussions (see Chapter 2, in this Part of the report).

P: It was not clear for the picture of the man, we did not know if it was a mask or a beard. (FGD 1)

As far as the broadcasting of this type of materials is concerned, the participants suggested that the brochure, as the video, be distributed to organisations and schools that work with deaf or hearing-impaired people in order to be seen by a maximum of people. They also declared that the brochure should be available in GPs' waiting room and in the streets on billboards.

P In the street, as a poster. [...] And near the associations. It would be good to send it to the associations, which could then... [...] Also on TV, we see the image, we understand. She said it would be good if someone could also go and distribute flyers, for example, to elderly people who are not very... or in schools too, because there are schools for the deaf. [...] And in hospitals, at the doctor's also, flyers to distribute, the family doctor could say "here". They have to be everywhere (FGD 1)

C. THE STILL FRAME AND LOGO FROM THE AUDIO FILES ABOUT THE MEASURE AGAINST COVID-19

In the other focus group discussions (French-speaking and non-French-speaking participants), the participants listened to audio files about the measures against COVID-19. For obvious reasons, this material was not used during the focus group discussions with people with hearing impairment. However, with the audio files, there was a still frame representing a crossed-out

virus and the federal government's logo. Those were presented to the participants in order to evaluate the accessibility of these images.

Regarding the cross on the image of the virus, the participants had different interpretation of what it meant. If for some of them it meant getting rid of the virus, for other, it was less clear. They suggested a stop sign instead of a cross. This observation confirms the one made previously with the other focus group discussions (see Chapter 2).

P: "It means not giving the disease, for me". [...] "I have no idea." [...] "For me, I thinks "When are we going to get rid of the virus?" [...] "I, I didn't understand". That means that we have to defend ourselves against the virus". [...] "I doesn't know. I do not understand this cross, this symbol". "If you want to say stop, it would have been more relevant to put a hand like that as a stop. Or to write "stop" but a cross like that, what does it mean in fact? We think it's a ban instead". (FGD 1)

The title of the still frame ('measures against the coronavirus'), the participants stressed that the word 'measures' is absolutely not clear for them. For the participants, that word is linked to quantitative data and not to 'rules'. They suggested that the word 'rules' be used to make the title more understandable.

P: I have no idea what "measures" means. I think it's a measure. [...] It would be more accurate to say "rule" or something like that. Than 'measure'. (FGD 1)

When asked if they knew what the '.be' logo meant, the participants declared that they knew it represents the federal government and therefore, that the materials we showed had been approved by the authorities. However, they also associated it with the end of the internet URLs.

P: Belgium, "be", Belgium. [...] It's put on the internet "dot be". [...] I know that it is the ministry, in fact, and for us ".be" is .be. [...] I know that it represents the Belgian federal government in fact. (FGD 1)

Nonetheless, even if they know what the logo means, they highlighted that they would not have more trust in the information that contains the logo than in the information that does not. Some participants mentioned that the government might share information that they do not approve or that changes very often which is, according to them, not trustworthy.

A: And so, now that you know that, does it give you more confidence, would it give you more confidence in the material that contains that logo or would it be the same for any flyer for example?

P: Not more. Not really because sometimes they put in information that they themselves don't agree with and they change a lot and so it's not... Every board that comes along, there's a new regulation. These are things that are not enforced (FGD 1).

D. PREFERRED PRODUCTS

When asked which product was their favourite, the majority of the participants emphasised that both the video and the brochure were clear and accessible. Nonetheless, some of them preferred the video due to the fact that it contains images and sign language which makes it accessible for people with hearing impairment.

M⁶¹: The video, the video, she says the video was very good and she can understand the pictures so both of them too. The video for sir and video for madam. [...] But she prefers the video, it's more meaningful.

A: So, three people prefer the video and three like both. Sir?

M: Three, both, three the video. (FGD 1)

⁶¹ M = Moderator from hosting organisation.

In a general matter, the form preferred by this type of audience was the translation into sign language. Most participants appreciated simple visuals or a few key words to accompany the interpretation.

3.4.2.2 RESULTS FOR THE FOCUS GROUP DISCUSSIONS WITH DEAF AND BLIND PARTICIPANTS

As previously mentioned in the methodology, no material was presented to the deaf and blind participants because none of the products were adapted to all of the participants, each one of them having very specific needs linked to their own type of handicap. Therefore, we rather discussed the general form of the products they would prefer in order to be informed.

Participants mentioned that different forms of communication are useful for them because within the group of people with deaf and blindness there is large diversity. For example, some people are blind and deaf, some people are blind and hard of hearing, some people are partially sighted and deaf, and some people are partially sighted and hard of hearing. In addition, some people know sign language and others do not, some people are able to speak (are oralists) and others are not, some people are able to read and others are not. Furthermore, in each case, there are varying degrees of disabilities and literacy.

Communication for this type of public has the specificity that it should ideally be tailored to each person. Intermediaries play an essential role in making information accessible to deaf and blind people. The social workers participating in the focus group discussions explained that they adapt their communication to each person:

A: The problem is that every deaf and blindness is different. As we see here, we have four people who don't have access to reading. There are others who have access. These four people have access to visual content but X does not have access to it and others do not have access to it. So, in fact, it's complicated to adapt. I think, well, each situation is really very specific, and we as social workers, we must also adapt to each person. So, for some people, I'm going to get very close to communicate, for others, I'm going to have to move away, for others, I won't be able to communicate orally, I have to communicate by email, for others, I'm going to use tactile sign language, so, it's true, I don't think there's going to be a single answer. If I may say so. You tell me if I'm wrong in what I say.

P: No, you're absolutely right. There needs to be more than one way to communicate. (FGD 3)

Therefore, deaf and blind participants recommended that the government communicate more with organisations representing this audience:

P: It would be great if the government could inform directly the organisations that are in contact with deaf and blind people. (FGD 3)

Despite the need to adapt communication for each person, the participants were also able to provide some information about the most appropriate form of communication adapted to their needs. They first mentioned that the forms of communication products should be diversified to meet all their diverse needs:

A: Okay, so, I'm going to go back. If you're going to get information, is there a tool that would be more suitable for you? Would you prefer to have a video, written text, audio perhaps?

A: A combination. P: Me, all of them.

A: It could be all three or two. (FGD 3)

Then, among all forms, most participants with hearing and visual impairment stated that they would prefer audios. Indeed, they all have hearing devices. Written text is also a good form of

communication according to some of them because of the existence of reading software. However, it was said that not all deaf and blind people have access to such software:

P: I would like to say that audio and text is the right solution. A: The right solution (...)

P: The software is designed to read any text.

A: So, there wouldn't necessarily be a need to create audios as well?

P: Yes, I think it is needed, because there are some who don't have the text zoom in speech synthesis. I didn't have text-to-speech until last year. (...) (FGD 3)

As far as the text is concerned, it was recommended by the participants that the sentences be short, simple and the information concise:

A: I think what he means is really to synthesise the information. To summarised it...

P: Yeah, that's clear and brief actually. (FGD 3)

Similarly, it was mentioned by participants with hearing and visual impairment that products that combine visual and audio content are less liked because there is often a loss of quality and information in the audio content when it is combined with visual content:

P: I'm not very much for sound and image because as soon as you make a product with sound and image, there's a loss in the sound, in the sense that it's formatted for us to watch and hear. No, you have to focus on the audio. (FGD 3)

A more general recommendation was also made by them concerning hearing aids. The latter are expensive and not reimbursed or only slightly reimbursed. However, these devices greatly facilitate access to information:

P: Well, the hearing aids that we all have here cost a little more than 4000 euros on average and they are not reimbursed by the AViQ. (...) it is still something that is not right. (...) To be well fitted, it is expensive. There are a lot of people with hearing impairment who can't get a good hearing aid. I think it's a serious issue. (FGD 3)

P: As far as our hearing aids are concerned, as the gentleman says, the insurance company contributes a little (...) over five years but deafness will not wait five years to deteriorate, sometimes after three years the hearing aids are no longer sufficient (...) (FGD 3)

Finally, visual content such as images are less accessible as a form of communication according to all of the participants as they are either visually impaired or blind:

P: I can't see the images anymore. (FGD 3)

3.5 RECOMMENDATIONS AND CONCLUSIONS

3.5.1 SUMMARY OF THE PARTICIPANTS' PERSPECTIVES REGARDING THE GENERAL ACCESSIBILITY OF THE INFORMATION

Through which channels do participants get information?

Most participants - whether deaf, hard of hearing, or deaf and blind - reported getting information primarily from their relatives and from television. With regard to relatives, participants get their information mainly from their family, including their partners and children, from acquaintances working in the medical field. In addition, organisations representing people with sensory impairment played an important role, either by transmitting information directly, or by allowing people to express their feelings, or by redirecting them to the appropriate support services. With regard to television, people with sensory impairment get their information from press conferences. People with hearing impairment tend to prefer the broadcasting of these press conferences on channels on which visual content, consisting of small additional illustrations on the screen, is also provided. Finally, some participants of the group of deaf and blind people mentioned using the Internet for getting information while others mentioned not using it at all. Among those who do use the Internet, some mentioned knowing the existence of the www.info-coronavirus.be website but none mentioned seeking information through this channel.

Which difficulties do participants face in accessing information?

Several difficulties were pointed out concerning access to information through television news. The image of the interpreter is sometimes considered too small by both groups of people with sensory impairment, especially by people who are both deaf or hard of hearing and partially sighted. In addition, it was mentioned by some participants of the deaf and visually impaired group that the subtitles are sometimes too small and scroll too quickly on the screen. Other difficulties in accessing information were mentioned. Overall, the information was perceived as extremely contradictory by both groups, leading some participants to stop seeking information about COVID-19. It was also mentioned, particularly by the deaf and blind participants, that the measures recommended were difficult to implement in their environments. As an example, the 1.5 meter distance was not easy to evaluate by them, and failure to maintain this distance sometimes led to inappropriate reactions from other people. In addition, during certain periods of the crisis, it was not possible to shop with an accompanying person. The participants therefore had to do some tasks alone that they were used to doing with a companion. Furthermore, because of the contagiousness of the virus, people in the public space were less willing to help people with sensory impairment. Therefore, more generally, the environment around people with sensory impairment became more hostile to them during the pandemic, leading some of them to isolate themselves. This isolation has in turn resulted in a loss of the ability to move easily in the public space for some people and more generally, a loss of autonomy. It should be noted, however, that there seems to be a difference between people living in the countryside and those living in the city. Indeed, people with sensory impairment living in the countryside seemed to have felt more supported and understood by their neighbourhood and wider circles than those living in the city, and therefore to have encountered less difficulties.

What sources of information do they trust?

Most participants mentioned trusting those around them. The deaf and blind people group mentioned trusting them especially when they work in the medical field. The people with hearing

impairment also mentioned trusting their general practitioner. Participants further stated that they trust organisations representing people with sensory impairment, including those who hosted us. It was said that there should be more collaboration between the government and these associations so that the right information can reach them. Finally, we were able to observe that the participants in both focus group discussions had little confidence in policy makers.

3.5.2 SUMMARY OF THE PARTICIPANTS' PERSPECTIVES REGARDING SPECIFIC FORMS OR PRODUCTS

A video, a flyer, and the images accompanying an audio file were presented to the group of people with hearing impairment, while none of these products were presented to the group of deaf and blind people, as they were not accessible to them. With the latter group, a more general discussion took place on the preferred and most accessible form of communication.

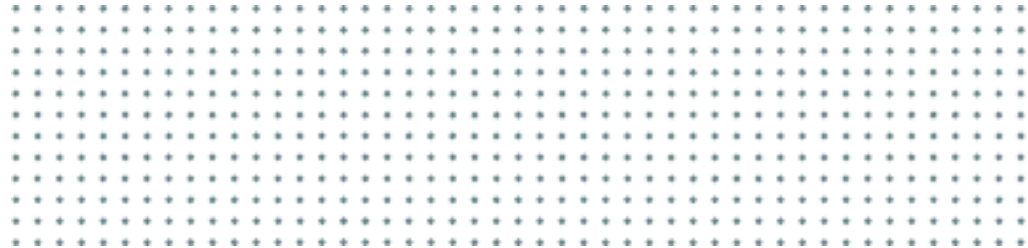
For the groups with participants with hearing impairment, the tools presented were generally appreciated. The video seemed clear to the participants. It was noted that a deaf person provided the sign language interpretation, making the interpretation more accessible. Nevertheless, it was pointed out that there was sometimes a slight discrepancy between the interpretation, the images and the subtitles. In addition, with regard to the subtitles, some participants found them useful while others found them distracting. Those who appreciated the subtitles, mainly the people who are hard of hearing, advised placing the text in white on a black background for better contrast. Then, the flyer also seemed clear to participants, except for the last image, which caused some confusion because the character's beard was mistaken for a mask. However, despite the general clarity of the information, participants would have liked the flyer to contain a little more information, for example on how to wash one's hands. Finally, with specific reference to the images accompanying the audio, participants in the deaf and hard of hearing group mentioned not understanding the word "measures". During the discussion, it was suggested that the word "rules" be adopted instead. Overall, it was pointed out that visual contents are very useful for people with hearing impairment.

The most appropriate form of communication for people who are D/deaf and blind seems to be the face to face. Indeed, this group is very diverse, composed of: people who are blind and D/deaf, people who are blind and hard of hearing, people who are D/deaf and partially sighted, and people who are visually impaired and hard of hearing. In addition, among the latter, some know sign language and others do not, some can read and others cannot, some are oralist and others not, etc. Therefore, only a social worker can adapt his communication to the specific needs of each person. Thus, it seems fundamental that more collaboration be established between the government and the associations representing deaf and blind people so that the right information reaches them. Regarding the communication products, on the contrary to people with hearing impairment, it was pointed out that visual contents are not or very little accessible to people with both hearing and visual impairment. Among the forms of communication, written and audio contents are accessible through screen reading software and hearing aids to people with visual impairment and hard of hearing. The participants who had both hearing and visual impairment specified audio as their preferred form of communication because they have access to it through their hearing aids.

3.5.3 FURTHER RECOMMENDATIONS

Further recommendations that emerged from the focus group discussions with participants presenting sensory barriers are close to the ones that emerged from the focus group discussions with French-speaking and non-French-speaking participants from disadvantaged socioeconomic backgrounds, namely:

- Personal communication, carried out by intermediaries working for organisations representing people with sensory impairment, is fundamental to reaching this audience. It is recommended that the government establishes more collaborations with these organisations so that the right information can reach people with sensory impairment in a short period of time.
- The audience of people with sensory impairment is diverse, with different needs and degrees of disability. Therefore, it is advisable to diversify the forms of communication.
- It is important that specific communication be directed to this audience. In terms of content, the messages should address the more practical ways of implementing the recommended measures in their living environments.



PART 6

SYNTHESIS OF THE THREE STREAMS OF GATHERED EVIDENCE

1 INTRODUCTION

In this final chapter, the evidence and recommendations gathered from all research activities of the ICC project are summarised. In line with the ICC project's over-arching objective to provide the government with knowledge to produce communication about ongoing crises in an accessible and inclusive manner, both for the current COVID-19 pandemic and other future risks and crises, this synthesis contains information on the barriers and facilitators of inclusive COVID-19 crisis communication as well as recommendations which offer advice on how to best communicate COVID-19-related information to people of all abilities in Belgian society, especially those who have proven to be hard to reach or are more vulnerable because they experience persisting sensory, linguistic, cultural, or textual barriers to access information. In doing so, the synthesis focuses on the form, the channel and the outreach of governmental COVID-19 crisis communication and builds on the gathered evidence from all the research activities in the project. Although we believe that an inclusive communication strategy can only be inclusive when it is accessible to the entire population, the project's original focus was to investigate how to make crisis communication accessible and effective for the following target groups due to time constraints:

- Foreign-language speakers
- People with low literacy skills
- People with sensory impairment (hearing or visual impairment)

In defining these target groups, the project adopted an intersectionality perspective and focused specifically on individuals part of these target groups with socioeconomically disadvantaged backgrounds and low socioeconomic status, as (social) vulnerability in contexts of crisis typically emerges intersectionally (Kuran et al., 2020).

The features we discuss below are compartmentalised in order to create a structured overview of all the elements which play a part in the development and sustenance of an accessible COVID-19 crisis communication strategy. However, many of these features are interconnected with one another. In order to retain an overview of these links, we will frequently reference other sections in this synthesis (IN SMALL CAPS). Throughout the synthesis, we will also explicitly indicated which research activities and which part of the report the recommendation, information and evidence stems from (by referencing the specific PART and Chapter(s) of the report).

2 FORM

2.1 TYPES OF FORMS

There are many types of forms which have been used by the federal government to communicate about the risks and crisis measures concerning COVID-19 since the start, as well as during the outbreak of the COVID-19 pandemic in Belgium. The project results show that some types of forms are preferred over others with regard to their general accessibility and reach.

Video messages were reported to be one of the communication products that are most commonly liked by end-users as well as representatives (PART 3 and PART 5). Videos are arguably useful for communicating crisis information to all target groups simultaneously, as they make it possible to present the information in a variety of modes via one single communication product: videos can contain written text, spoken text and images simultaneously. For people with hearing impairment, videos are beneficial communication products because they offer the possibility to communicate information through images, subtitles and sign language (PART 3 and PART 4 - Chapter 3). For people with visual impairment audio description, audio introductions or voice-overs can be added. For people with low literacy skills and foreign-language speakers, the combination of images and text (both written and spoken) can help to draw attention to the message, activating multiple senses at once (PART 3; PART 4 - Chapters 3 & 4 and PART 5 - Chapter 2 & 3), and increasing message comprehension (PART 4 - Chapter 1). In addition, videos can be shared through a variety of channels, for example on social media networks, via messaging apps, on TV broadcasts, in public spaces, etc. (SEE 3.2 TYPES OF CHANNELS: DIGITAL VS. NON-DIGITAL). These factors make videos ideal forms to reach a large and diverse audience (PART 4 - Chapter 3 and PART 5 - Chapter 2). In the validated guideline (PART 2), video messages are also suggested as an effective communication product to distribute crisis information to the target groups. In general, the guideline suggests using short and simple (animated) videos, in which non-narrative (i.e. didactic) and narrative elements, as well as facts and concept explanations are combined (PART 2).

Audio messages were generally found to be a bit less popular or effective than video messages. This most likely has to do with the fact that most audio messages contain no visual support and spoken text can sometimes be difficult to follow for end-users due to the complexity, length and speed of the message (PART 4 - Chapters 1-4 and PART 5 - Chapter 1). In the focus group discussions, the audio message was rated as the least favourite product out of the three products presented to the focus group participants (PART 5 – Chapters 1 & 2). However, audio messages do have an added value for foreign-language speakers, people with low literacy skills and people with visual impairment, since they enable end-users to listen to the information instead of having to read it, which can often be experienced as a barrier for these target groups (PART 4 – Chapter 1 & 3). In general, it is recommended to support the audio with (an) image(s) in order to retain the listener's attention and to help them understand the information better (PART 3 and PART 5 – Chapters 1 & 2).

Aside from audiovisual media, **posters, flyers, brochures and infographics** can also be used to communicate COVID-19 crisis information. An important asset of these specific communication products is that they can be distributed both online and offline (PART 4 – Chapters 1 & 2), which allows for a wider possible reach (SEE 3.1 DIVERSIFICATION OF CHANNELS). Especially as

communication is moving more and more towards digital platforms, people with low or no digital skills benefit from information that is shared in public spaces or that can be delivered in person and/or taken home on paper (SEE 3.2 TYPES OF CHANNELS: DIGITAL VS. NON-DIGITAL). During the focus group discussions, the brochure was chosen as second favourite out of three communication products by the participants (PART 5 – Chapters 1 & 2). In the validated guideline, the use of infographics, in particular, was suggested as an effective and accessible crisis communication practice (PART 2). In general, the accessibility of these types of products and forms is only guaranteed when attention is paid to the accessibility of the very elements these message forms are composed of (PART 2 and PART 3).

This general observation that the whole is only as accessible as its (combined) parts allow it to be, also applies to all types of forms that can be selected for a COVID-19 communication product: the effectiveness of a specific form of a product in removing barriers and providing access to crucial crisis information largely depends on the specific characteristics of the form (such as the visuals, language use, subtitles, etc.) and the ways in which they are combined. In the remaining sections of this synthesis, we discuss the recommendations regarding the most important of these characteristics of inclusive and accessible COVID-19 crisis communication as uncovered in the ICC project's research activities.

2.2 DIVERSIFICATION OF MESSAGE FORMS

In order to reach people of all abilities in Belgian society and to ensure they all have access to crisis communication equally, the provision of a mix of communication products in various forms is crucial and can optimise the spread of information (PART 4 – Chapters 1-3 and PART 5 – Chapter 3). Distributing crisis information through a variety of different message forms helps to make information more accessible because there is a large diversity of people with specific communication needs and preferences, not only in the population in general but also within the target groups in question. In order to meet these needs, it is necessary to make additional and tailor-made communication efforts for certain groups (PART 3; PART 4 – Chapters 1 & 3). Incorporating accessibility as a point of attention as early on in the crisis communication development process as possible is an important part of tailor-made communication. However, there are some disadvantages to this strategy as well. Providing a mix of different message forms automatically implies that the circulation of a higher volume of communication material, which can make it challenging for some people to find their way to the information they need (SEE ALSO 5.3 STREAMLINING THE QUANTITY AND SCATTEREDNESS OF INFORMATION). Moreover, some target groups such as foreign-language speakers might feel targeted or stereotyped when they suspect that a communication product is adapted to their identity, which in turn can generate a counterproductive effect (PART 2 and PART 3 – Chapter 4). For example, when a photo depicts a person of colour, people might sometimes falsely assume that the content of the message is connected to the personal characteristics of the depicted individual; such stigmatization should be avoided (PART 4 – Chapters 3 & 4) (SEE ALSO 2.3.5 VISUAL FEATURES). In the validated guideline, tailoring crisis messages to the identity or appearance of the recipient in terms of the content or representation of ethnicity or ability is therefore not recommended.

In order to minimise the negative effects mentioned above, the principles of Universal Design could be applied (SEE 6.1 DESIGN FOR ALL FROM THE START).

2.3 CHARACTERISTICS OF MESSAGE FORMS

2.3.1 EASY LANGUAGE

The use of Easy Language in COVID-19 crisis communication has come forth as one of the main and strongest recommendations throughout all the evidence gathered in the ICC project (PART 3; PART 4 – Chapters 1-4 and PART 5 – Chapter 2). Often, the actual content of crisis information is highly complex in nature, and this has proven to be particularly the case in the outbreak of a health crisis such as the COVID-19 pandemic. Consequently, if both the content of the information and the language which is used to communicate or explain the information are complex to process and understand, a double barrier can emerge to access the information. Easy Language is thus an important and necessary characteristic of accessible COVID-19 crisis communication.

Easy Language can be adopted in all types of message forms, whether this concerns a video message, an audio message, a poster or an infographic. Moreover, not only specific target groups such as people who have a low level of literacy or people whose mother tongue is different from one of Belgium's national languages (i.e. foreign-language speakers and people with hearing impairment) can benefit from the use of Easy Language. The population at large would arguably benefit as well from this accessibility measure as it makes the information more accessible and understandable (PART 4 – Chapters 1 & 2).

Easy Language encompasses more than just vocabulary, word and sentence structure. Visual and multimodal design also play an important role in ensuring a message is easy to read and easy to process. Based on the qualitative evidence collected throughout the project (PART 2; PART 3; PART 4 – Chapters 1-2 & 4 and PART 5 – Chapter 1), these are of the cornerstones of providing texts⁶² in Easy Language:

- use short sentences of maximum ten to thirteen words;
- use every day colloquial language and simple, basic words;
- avoid jargon, abstract words or English terms;
- avoid figurative language;
- structure the text in a distinct, consistent and logical manner;
- indicate what the communication is about by using clear titles and headings;
- deliver the core message (first);
- avoid long and elaborate texts;
- provide context by adding the date and sender to the text;
- avoid background information and abstract messages;
- use a clean, airy and simple layout;
- put important words in bold;
- avoid cursive, underlined or fully capitalised text;
- choose a font that is easily readable (e.g. sans-serif);
- opt for a sufficiently large font size (i.e. using letters of at least two centimetres and preferably three centimetres high when the reading distance is one metre) and wide line spacing;
- choose contrasting colours and ensure an even background.

⁶² The term 'text' is used here to refer to all types of messages, thus not only in written form, but also in visual or auditive forms.

Yet, there are some disadvantages to Easy Language too. In some instances, nuancing the message is necessary, and adopting Easy Language leaves less room for nuance because it simplifies the information to a high degree (PART 3 and PART 4 – Chapter 3). Some end-users from the target groups felt that there was not enough accessible in-depth information available to them when presented with a communication product designed in Easy Language (PART 4 – Chapter 3 and PART 5 – Chapter 1). In some cases, it might be better to leave room for detailed, nuanced information or explanations rather than oversimplifying a complex message. This need for nuance in COVID-19 crisis communication also echoed the sentiments of some end-users and intermediaries who expressed the need for such nuanced information because this comes across as more “objective” or trustworthy and enables the receiver to make their own informed decisions without being steered into a certain direction (PART 2; PART 4 – Chapters 2-4 and PART 5 – Chapter 1). (SEE ALSO 4.2 TRUST AND ACCEPTANCE)

2.3.2 TRANSLATIONS AND MULTILINGUAL INFORMATION

Translations are a necessary and effective form of communication to increase foreign-language speakers’ access to government crisis communication. Throughout the project, it was often mentioned that there is a lack of accessible multilingual information (PART 4 – Chapters 1 & 2 and PART 5 – Chapter 3).

In the roundtable discussions and focus group discussions on the topic of foreign-language speakers’ communication needs, the value of and appreciation of multilingual crisis communication was highlighted by both the intermediaries and the end-users (PART 4 – Chapters 3 & 4 and PART 5 – Chapter 2). Especially the possibility to receive the translated message in multiple modes, i.e. both spoken in video or audio messages, and written as subtitles or printed text, was very much appreciated (PART 5 – Chapters 1 & 2).

Aside from enabling foreign-language speakers to read or listen to COVID-19 crisis information in their mother tongue, which facilitates and heightens their comprehension of the message, providing translations also arguably reflects the gravity of the crisis situation and the importance of communicating the correct information to foreign-language speakers (PART 4 – Chapter 1). It can invoke a strong sense of inclusion and arguably reflects an image of the (local) government as being in touch with and taking the effort to inform all its subjects (PART 4 – Chapter 1).

In spite of the importance of translations and multilingual information, important preconditions exist which need to be taken into account when producing and disseminating translated COVID-19 crisis information:

- adopt the principles of Easy Language in translations as well (PART 4 – Chapters 1-3);
- assure that the translation is correct, for example, through testing and in collaboration with native speakers (SEE 6.3 COLLABORATION WITH TARGET GROUPS) (PART 3; PART 4 – Chapter 2 and PART 5 – Chapter 1);
- ensure easy access to multilingual information (e.g. the pathway to foreign-language material on the federal website www.info-coronavirus.be was evaluated as too complex) (PART 3 and PART 4 – Chapters 2 & 3) (SEE ALSO 2.3.9 WEB ACCESSIBILITY);
- present the foreign-language version together with the original text in the country’s national language, possibly through a QR code or hyperlink to the translation (SEE ALSO 3.2.1.5 ONLINE INFORMATION VIA QR CODES, HYPERLINKS OR DOWNLOADS) (PART 4 – Chapter 1 and PART 5 – Chapters 1 & 2).

2.3.3 SUBTITLES

For foreign-language speakers and people with hearing impairment, providing intra- and interlingual subtitles for video or audio messages is crucial for increasing their access to crisis information (PART 4 – Chapters 1-3). Not only do subtitles help to follow the message in real time and understand it better, they also offer the possibility to print the message in written text (PART 4 – Chapter 4 and PART 5 – Chapter 2).

In order for subtitles to reach their desired effect, the following factors are important to consider:

- the pace of the video or audio should not move too fast (SEE ALSO 2.3.4 AUDIO FEATURES),
- the font size should be sufficiently large,
- the subtitles should not be blocked by other banners, logos or text, and
- the contrast with the background should be taken into account (PART 3; PART 4 – Chapters 1 & 2 and PART 5 – Chapter 3).

In addition, it is important to ensure that there is no delay between the subtitles and the spoken text. Synchronised subtitles are necessary so that people who can still partially hear are able to listen to and read the video message simultaneously (PART 4 – Chapter 3).

In the focus group discussions with foreign-language speakers, video as well as audio messages with subtitles were predominantly preferred over those without (PART 5 – Chapters 1 & 2). However, in the focus group discussion with people with low literacy skills and people with hearing impairment, there were some discrepancies among the participants' preferences, as some found the subtitles to be distracting (PART 5 – Chapters 2 & 3). Personalised subtitles could offer a solution for this discrepancy: end-users could then choose to enable subtitles or not, and ideally also adapt the subtitles to their preferences by choosing the font size and colour, and the colour of the background (PART 3; PART 4 – Chapter 1 and PART 5 – Chapter 3).

2.3.4 AUDIO FEATURES

When producing audiovisual communication products, it is important to take into account certain audio features that influence the reception of the message. Firstly, the speaker or voice-over should be careful not to speak too fast and leave room for enough pauses between sentences, so that the listener can follow along and read the accompanying subtitles if desired (PART 3). This is especially important for people who have a low level of literacy or people who are not (fully) proficient in the language in which the message is delivered. The speech rate or speaking pace of audiovisual messages is also an important consideration for people with hearing impairment, as it will influence the pace of the sign language interpreting (PART 5 – Chapter 3). When discussing possible barriers to access information, the speed of audiovisual messages was mentioned repeatedly in the gathered qualitative evidence, and in relation to all target groups (PART 3; PART 4 – Chapters 1, 3 & 4; PART 5 – Chapters 1 & 2). In light of a lack of insights and research on the most optimal speech rate and playback speed, more research on this is necessary. Moreover, other factors that can hinder the intelligibility of the speaker, such as background music/noise or wearing a face mask, are also important to pay attention to when producing audiovisual material (PART 4 – Chapters 1 & 4).

Secondly, the voice of the speaker itself also plays a role in the accessibility of the message. From the roundtable discussions and focus group discussions, it became clear that end-users of all target groups mostly preferred to listen to a natural human voice, instead of a synthetic voice (PART 4 – Chapters 3 & 4 and PART 5 – Chapter 1). A synthetic voice was found to be sound too

‘robotic’ and ‘jerky’, and therefore unpleasant to listen to (PART 4 – Chapters 3 & 4). However, the synthetic voice was deemed clearer and easier to understand than the natural voice, because the latter (in the specific audio example) spoke too fast, with too little pauses and with little intonation (PART 4 – Chapter 4 and PART 5 – Chapters 1 & 2). It was noted that synthetic voices are acceptable for conveying crisis information in urgent situations, especially for people with visual impairment as they are already used to listening to synthetic voices (PART 4 – Chapter 3). Another aspect of the voice that should be considered, is the tone of voice. A tone that is too injunctive, patronising or repressive can arguably lead to less acceptance of the message (PART 4 – Chapter 2 & 3 and PART 5 – Chapter 2) (SEE ALSO 4.2 TRUST AND ACCEPTANCE).

2.3.5 VISUAL FEATURES

Because many of the target groups in question are more visually oriented (i.e. people who have a low level of literacy, foreign-language speakers who might not understand a text in Dutch/French, and people with hearing impairment), the use of images in COVID-19 crisis communication is highly recommended. Randomly adding visuals to crisis messages, however, is not sufficient; on the contrary, wrong and excessive use can weaken the message (PART 4 – Chapter 3), as well as create a barrier for people with visual impairment, who already struggle with accessing visual information as it is (PART 4 – Chapter 2 & 3 and PART 5 – Chapter 3).

For these reasons, it is important to consider carefully and consciously the ways in which visuals are used and designed. One crucial requirement of accessible visuals is to ensure that the image is self-explanatory and unambiguous. In other words, the meaning behind the image should require no further explanation and should thus be evident without reading the accompanying text (PART 3; PART 4 – Chapters 1-4). Nonetheless, accompanying visuals with simple and short texts⁶³ and vice versa is still recommended (SEE ALSO 2.3.1 EASY LANGUAGE). In addition to avoiding misinterpretation, providing text and images together draws more attention to the message, increases message comprehension and causes the reader to remember the message better (PART 4 – Chapters 1-4). For this to succeed, it is important that the image reflects not only the content of the message, but also the current situation and context of the crisis (PART 3 and PART 4 – Chapter 1).

In order to ensure an image is self-explanatory and unambiguous, it is recommended to use visuals which are ‘universal’, but which still contain enough details to be deemed realistic (PART 2 and PART 4 – Chapters 1-3). The universality of the image enables the end-user to recognise the image more easily and the details prevent the image from becoming too abstract. For this reason, photographs are sometimes preferred over pictograms (PART 4 – Chapters 1 & 3). In general, photographs require a lower level of abstraction on behalf of the viewer, compared to pictograms. The latter often contain drawings of abstract concepts, such as a green check mark or a red cross, the meaning of which is culture-specific, and as a result require more thought, and could thus cause confusion or misinterpretation (PART 3; PART 4 – Chapters 3 & 4 and PART 5 – Chapters 2 & 3). However, photographs also come with certain potential obstacles: people tend to interpret images very literally, so when a photograph contains some insignificant (background) details, people will sometimes attach a wrong meaning to them and misunderstand the message (PART 4 – Chapter 3). Another disadvantage of photographs is that they are less visible when they are small in size (i.e. when viewed on a smartphone) or when they are presented or printed

⁶³ The term ‘text’ is used here to refer to both written and auditive messages (SEE ALSO 2.3.4 AUDIO FEATURES).

in black and white (PART 4 – Chapter 3). Ultimately, photos, realistic drawings and pictograms can all be valuable tools for increasing accessibility, as long as they are designed with accessibility in mind. Involving target groups in the development process and pre-testing these products with end-users is a great way to ensure that the products are actually accessible (PART 4 – Chapters 3 & 4) (SEE ALSO 6.3 COLLABORATION WITH TARGET GROUPS).

Some other recommendations to take into account when working with visuals in COVID-19 crisis communication are to:

- depict only one message in each image. More than one message in a photograph or pictogram requires a higher level of abstraction (PART 2; PART 3 and PART 4 – Chapter 3);
- consistently use one and the same pictogram per message or topic and vice versa. Currently there are too many different pictograms in circulation for the same message, which can confuse people. Since pictograms have to be learned, using the same pictograms over a long period of time makes them more familiar to end-users and therefore more accessible. (PART 4 – Chapters 3 & 4);
- choose pictograms or photographs that clearly depict an action, so that less interpretation is necessary (PART 4 – Chapter 3);
- consider adding an official logo of the sender to the message (i.e. from the government), to let the end-user know who the sender of the message is and to guarantee the credibility and validity of the message (PART 4 – Chapter 3 and PART 5 – Chapters 1 & 2);
- ensure the image is large enough (PART 4 – Chapter 3 & 4 and PART 5 – Chapter 1). When used in printed form, images must be visible from the walking route and within people's field of view (PART 4 – Chapter 3). When used in digital form, the pixilation of the images must be of good quality, otherwise people cannot enlarge the image (PART 4 – Chapters 3 & 4);
- consider the position of the image in its immediate, physical environment, they should preferably be placed at eye level (PART 4 – Chapter 3);
- always check whether an image in colour is visible and processable in black and white too. This is important for people who are colour blind as well as intermediaries who use print-out material in black and white (PART 4 – Chapters 3 & 4);
- take into account the colour contrast, the thickness of lines and the design and shape of the icons. Do not use white lines and be aware of the choice of colours in general. (PART 4 – Chapters 1-4).

Specifically for people with hearing impairment, still images or drawings of signs form a relevant alternative to videos in sign language (PART 4 – Chapter 4). People with visual impairment gain access to digital visuals through screen-reading software that reads out the written text and images depicted on the screen. Therefore, it is important that online information is compatible with this kind of software (SEE ALSO 2.3.9 WEB ACCESSIBILITY). With respect to visuals, this means that a detailed written explanation of the image content (i.e. an alt text) should be provided in the file or on the website (PART 4 – Chapters 1 & 2). For people who are visually impaired but not totally blind, it is important that maximum perceptibility of the visual information is provided for (see recommendations concerning contrast, size and colour use in the list above).

Lastly, the representation of diversity in society in images for crisis communication emerged as an important concern in the project's research activities, albeit one with no clear consensus. On the one hand, it was recommended that visuals reflect the diversity of the target group, in terms

of age, ethnicity and ability (PART 2; PART 3 and PART 4 – Chapters 1, 3 & 4). On the other hand, ‘neutral’ visuals which everyone can identify themselves with were also recommended (PART 4- Chapter 4 and PART 5 – Chapter 2)). As said earlier, people tend to interpret images literally, so when a photo depicts a person of colour or a blind person, people will sometimes falsely assume that the content of the message is connected to the depicted individual’s personal characteristics. This can cause confusion and misunderstandings, and can lead to stigmatisation (PART 4 – Chapters 3 & 4) which was also pointed out by the expert panel of the validated guideline. As discussed earlier, the validated guideline does not recommend tailoring crisis messages to the identity or appearance of the recipient in terms of representation of ethnicity or ability, because some target groups might feel targeted or stereotyped (PART 2). However, the expert panel did point out the importance of diversity in visuals: If a doctor is portrayed, it is nice that he is not always a stereotypical white man, but the appearance of the doctor does not have to match the appearance of the recipient (PART 2).

2.3.6 AUDIO DESCRIPTION AND AUDIO INTRODUCTION

Similar to the recommendations formulated for written texts (SEE 2.3.1 EASY LANGUAGE), people with visual impairment require audiovisual messages to be put into context through a spoken description of the visual information in the message. Before the start of the audio message itself, for example, the title and subject of the message should be clear by reading it out via a speaker or voice-over (PART 4 – Chapter 3). Additionally, the date must be accessible as well, by reading it out so that the listener knows whether this information is still up-to-date and whether differently dated and possibly outdated versions are in circulation (PART 4 – Chapter 3).

In addition to the context of a message, there are several options to make message content more accessible for people with visual impairments. First, essential information can be mentioned in an audio introduction (AI). An audio introduction consists of a brief description of the general topic and what is shown visually in an audiovisual product. These are generally presented at the beginning of a product for the benefit of visually impaired consumers and are ideally suited for videos that have few natural pauses and contain a lot of audio.

Next to audio introductions, audio description (AD) is also a possible instrument to make audiovisual messages accessible to people with visual impairment. Audio description is a form of narration used to provide information surrounding key visual elements in an audiovisual product (such as a film or television program) for the benefit of people with visual impairment. These narrations are typically placed during natural pauses of the audio. The roundtable discussions’ results suggests that people who are blind tend more towards AI for informative videos like the ones studied in this context, while people who are partially sighted tend more towards AD as they partially follow the image as well. During one roundtable discussion, it was suggested that a mix between AI and AD would be the best option to be as relevant as possible to both target groups (PART 3 and PART 4 – Chapter 4).

For urgent COVID-19 crisis information, however, AD and AI are neither feasible nor always necessary, as long as the speaker or voice-over of the audio message already provides enough context and information to be able to follow the content without needing the images (i.e. during press conferences the name of the person speaking is announced before they start speaking) in an accessible manner (i.e. not too fast) (SEE ALSO 6.1 DESIGN FOR ALL FROM THE START). For durable, long-term information and returning topics, however, providing AD or AI does have an added value for people with visual impairment (PART 3 and PART 4 – Chapter 3). Yet, regarding

informative messages like these, detailed descriptions of images are not always needed and can sometimes even hamper end-users' understanding of the message (PART 3 and PART 4 – Chapter 3). Therefore, it is important to clarify which visual information is inherent to the message and which images are merely used as a background (PART 4 – Chapters 3 & 4). All in all, the need for AD and AI depends on the way in which the video was designed from the start.

2.3.7 SIGN LANGUAGE INTERPRETING

For people with hearing impairment, providing crisis information in sign language is essential. The fact that the press conferences concerning the COVID-19 pandemic were interpreted into sign language was greatly appreciated by people with hearing impairment and their representatives (PART 4 – Chapter 1-4). However, the provision of a larger variety of communication material in sign language, such as summary videos of the press conferences or videos on additional risk information, is necessary and important (PART 4 – Chapters 1 & 3). This way, people with hearing impairment are able to process the information at their own pace after the live event and can remember and understand it better (PART 4 – Chapter 3). Another example of providing sign language in a different communication format is the remote interpretation service via videoconference made available by the government, which was also praised by end-users and representatives (PART 4 – Chapters 1 & 4)) (SEE ALSO 3.2.2.2 INFORMATION HOTLINES).

Some important conditions to consider in order to make crisis communication accessible to people with hearing impairment through sign language are to:

- ensure that the sign language interpreter is sufficiently visible on the screen by not covering the interpreter by the TV channel's logo or lower thirds (titles at the bottom of the screen) (PART 3; PART 4 – Chapters 1-2 & 4 and PART 5 – Chapter 3);
- allowing the interpreter to occupy one third of the screen's full size (PART 3; PART 4 – Chapters 2 & 4 and PART 5 – Chapter 3);
- preferably choose a Deaf person to interpret into sign language (PART 4 – Chapters 2-4 and PART 5 – Chapter 3);
- ensure that information in sign language is easy to find, e.g. by making the landing page of the federal website www.info-coronavirus.be more visually intuitive as people with hearing impairment are very visually oriented (PART 4 – Chapter 1) (SEE ALSO 2.3.9 WEB ACCESSIBILITY);
- accompany the sign language interpretation with some simple visuals or key words and subtitles, so as to support the message further and make it accessible to people with hearing impairment and are not proficient in sign language (PART 3; PART 4 – Chapter 3 and PART 5 – Chapter 3) (SEE ALSO 2.3.3 SUBTITLES AND 2.3.5 VISUAL FEATURES).

2.3.8 BRAILLE

Although the use of braille was only mentioned once as a possible communication form (PART 4 – Chapter 3), adapting some tools in braille is still considered as a real added value for people who are less trained in digital skills or who do not have access to it (SEE ALSO 3.1 DIVERSIFICATION OF COMMUNICATION CHANNELS). A large part of the elderly population who is blind still uses braille.

2.3.9 WEB ACCESSIBILITY

As the majority of the day-to-day and official communication by the government happens online, it makes sense that crisis communication is also disseminated through digital channels, such as

the federal website www.info-coronavirus.be. In order to ensure that everyone has access to the information on such online channels, they have to be adapted to suit the needs of end-users who face sensory or literacy barriers that make their search for information online more difficult. This is especially the case for people with visual impairment, since they rely on screen-reading software to gain access to written text or images online. Oftentimes, websites are not yet adapted to this need (PART 4 – Chapters 1 – 4).

The European Web Content Accessibility Guidelines (WCAG) play an essential part in this respect. In order to ensure access to online crisis communication, in particular for people with visual impairment, it was pointed out that all official government and media websites should adhere to the WCAG 2.0 AA level of compliance (PART 3 and PART 4 – Chapters 1-3). To meet WCAG 2.0 Level AA conformance, websites are required to at least:

- provide (live) captions for videos;
- provide audio description for videos that are otherwise incomprehensible;
- ensure a sufficiently large contrast ratio;
- enable users to enlarge the text without sacrificing the full content overview;
- refrain from using images of text;
- ensure the page can be found and consulted in a variety of ways (e.g. usable on a smartphone, downloadable as a Word file, etc.);
- use headings and labels that are descriptive and accurate;
- provide visible keyboard focus;
- if part of the text is written in a foreign language, indicate this in the source code;
- ensure that navigation elements are consistent and in the same relative order throughout the website;
- ensure that components with the same functionality are consistently identified throughout the website;
- use text alternatives for images that convey meaning.⁶⁴

To reduce the risk of information exclusion, regular quality assessment based on these requirements should form an integral part of the government's crisis communication strategy (PART 4 – Chapter 1). For the other target groups, which all arguably would benefit from visual support, governments should strive to give their websites a logical structure and make them easier to navigate by using pictograms or images as well as clear keywords and a directory to indicate which kind of information the website contains and where it can be found (PART 4 – Chapters 1 & 3).

However, web accessibility is about more than just websites. Online documents, such as brochures or infographics, need to be available in a variety of formats in order to be accessible. With regard to people with visual impairment for example, a PDF file does not always comply with screen readers, whilst a Word or html file almost always does (PART 3 and PART 4 – Chapters 1-4). Similarly, foreign-language people and people with low literacy skills often consult information on their smartphone, or intermediaries show them information on a smartphone, so the file format and design of the message should be adapted to smartphones (PART 4 – Chapter 3).

⁶⁴ See [https://www.anysurfer.be/nl/blog/detail/anysurfer-wcag-de-europese-richtlijn-en-de-belgische-wet#:~:text=WCAG%20\(Web%20Content%20Accessibility%20Guidelines,te%20maken%20voor%20alle%20gebruikers.&text=WCAG%202.0%20is%20sinds%202008,het%20W3C%20sinds%20juni%202018\)](https://www.anysurfer.be/nl/blog/detail/anysurfer-wcag-de-europese-richtlijn-en-de-belgische-wet#:~:text=WCAG%20(Web%20Content%20Accessibility%20Guidelines,te%20maken%20voor%20alle%20gebruikers.&text=WCAG%202.0%20is%20sinds%202008,het%20W3C%20sinds%20juni%202018))

Finally, given the increased use of video and audio, the online accessibility of video should be considered as well. As mentioned above, videos should ideally contain subtitles, audio versions in different languages, including sign language. It is important that users can easily find the version that is adapted to their needs. This can be realised (1) through clear (and multilingual) navigation, (2) by choosing an accessible web player that can also be used with screen readers or (3) by choosing a universally accessible web player, such as Theo Player, which allows the integration of several access features into one single interface (see PART 3). However, it remains important to also consider the varying levels of digital literacy of users in this respect: a simple, clear and unambiguous navigation and clear instructions in Easy Language on where to find and how to use the digital products are deemed essential (PART 3).

3 CHANNEL

3.1 DIVERSIFICATION OF COMMUNICATION CHANNELS

Diversifying and increasing the number of the communication channels through which risk information is disseminated is an absolutely essential requirement of inclusive and accessible crisis communication (PART 4 – Chapters 1-4 and PART 5 – Chapter 1). Earlier in this synthesis, it was pointed out that providing a mix of different forms of crisis communication is necessary to ensure that target groups with certain linguistic or sensory barriers have equal access to crisis information, because they have specific communication needs that are usually not taken into account in standard message forms (SEE 2.2 DIVERSIFICATION OF MESSAGE FORMS). The same recommendation applies to communication channels, as a larger variety of channels can also contribute to a wider reach of the crisis information and thus also possibly easier access for people who might be at a higher risk of information exclusion.

However, especially in crisis situations, it is important to know which specific types of channels reach people with linguistic or sensory impairments and which do not, so that governments can adopt an effective crisis communication strategy timely and effectively. The next section discusses the main communication channels used by people who have a low level of literacy, foreign-language speakers, people with hearing impairment and people with visual impairment, along with reasons to why some channels are arguably more or less accessible than others.

3.2 TYPES OF CHANNELS: DIGITAL VS. NON-DIGITAL

In this section, a distinction between digital and non-digital channels is foregrounded, as these two types of channels were often contrasted with each other when discussing the advantages and disadvantages of certain channels in the project's research activities.

A topic that was highlighted very frequently in this context was the **digital divide**, which is characterised by (1) a gap between some end-users' lack of digital skills and access to online information, on the one hand, and (2) the disproportionately large amount of (official) crisis communication that is distributed online instead of offline, on the other hand (PART 4 – Chapters 1-4 and PART 5 – Chapters 1-3). According to Statbel (2020), 10 percent of Belgian households has no access to the Internet at home, either due to financial barriers or low digital skills (or a lack of interest/motivation to acquire such skills). Furthermore, 29 percent of Belgian households has reportedly a low level of digital skills and 10 percent has no digital skills (Statbel, 2019). The proportion of people with no or low digital skills is usually higher among people with a low level of education or the elderly, as for the former 42 percent report to have low digital skills and 23 percent report to have no skills (Statbel, 2019), while among the elderly this was 35 percent and 31 percent, respectively (Statbel, 2019). Since people with low literacy skills, foreign-language speakers and people with sensory impairment often fall victim to intersectional challenges like the digital divide, inequality regarding access to digital COVID-19 crisis communication was reported to be a serious barrier for these target groups (PART 4 – Chapters 1-4 and PART 5 – Chapter 3). Because of the digital divide, many people have to rely on the help of others instead of being able to search for and receive crisis information independently (PART 4 – Chapter 4 and PART 5- Chapters 1 & 2). As the digital divide is an issue that will not disappear

any time soon, it is of crucial importance that governments acknowledge it, understand it and keep committing themselves to communicating through offline channels to an equal extent as through online channels, or even better, through as many different types of channels as possible (PART 4 – Chapters 1-4). In other words, the diversification of communication channels is recommended as a crucial measure to help solve the problems related to the digital divide (SEE 3.1 DIVERSIFICATION OF COMMUNICATION CHANNELS).

3.5.4 DIGITAL CHANNELS

3.5.4.1 SOCIAL MEDIA

There are different types of social media networks that could be used to communicate COVID-19 crisis information. Social networks and messaging apps, such as WhatsApp and Messenger, in particular, can be a useful channel to distribute crisis messages, but not necessarily directly by the government. These types of channels are used more for conversations between family and friends, as well as between confidants of intermediary organisations (e.g. teachers) and end-users (PART 4 – Chapters 1 & 4). For example, people with visual impairment reported to receive a lot of their information on COVID-19 through WhatsApp chat groups with other people with visual impairment (PART 4 – Chapter 4)). Governments therefore have little control over this channel. One of the few ways governments can influence the reach of crisis messages via interactive social media is by assuring that the available crisis communication products, such as a video and audio messages, are suited for use and dissemination via these social media apps (SEE 2.3 CHARACTERISTICS OF MESSAGE FORMS). Another more specific way in which governments can provide accessible COVID-19 crisis communication is by setting up an official chat function run by the government as an alternative to an information hotline (SEE 3.2.2.2 INFORMATION HOTLINE). This can be a very valuable addition for people with hearing impairment (PART 4 – Chapter 1).

Media sharing networks, such as YouTube, Instagram and Facebook, can be used more directly by governments in their mission to convey crisis messages to end-users who can experience linguistic or sensory barriers. This type of social media network was mentioned among the main sources of information for people who have a low level of literacy and foreign-language speakers (PART 4 – Chapter 1 and PART 5 – Chapter 2). People with sensory impairment also use such channels to search for or receive crisis information: similarly to messaging apps, the target groups received a lot of their information on COVID-19 through groups on Facebook (PART 4 – Chapters 1-3 and PART 5 – Chapter 2). However, governments should not rely too much on the spread of information via these media sharing networks (PART 4 – Chapters 1-4). As explained in earlier, a considerable amount of people are not digitally literate, and relatedly not active on social media. Moreover, among end-users that do use social media, it is not guaranteed that they will pay attention to the message or share it with others (PART 5 – Chapter 1). Still, ‘sponsored’ messages by the government on social media networks like Facebook, YouTube or Instagram do have the potential to reach a variety of target groups, as these messages can pop up on their feed. Moreover, when these messages are shared on social media feeds by a ‘verified sender’ (i.e. senders with a check mark next to their name on social media), this generates more knowledge and search intent than other sources on social media, according to the expert panel and the validated guideline (PART 2).

3.5.4.2 WEBSITES

The official federal website www.info-coronavirus.be contains a lot of relevant and useful information about COVID-19. However, most end-users from the target groups were not aware of the existence of the website (PART 4 – Chapters 1 & 2 and PART 5 – Chapters 1 & 2). When they do know the website, it is rarely consulted (PART 4 – Chapters 1-4 and PART 5 – Chapters 2 & 3). Both the inaccessibility of the website and the digital divide were often put forward as an explanation for this lack of website visits by end-users (PART 4 – Chapters 1 & 2). If these issues would be improved on governmental COVID-19 websites, these websites might arguably be consulted more often by end-users.

3.5.4.3 EMAIL AND TEXT MESSAGES

The use of text messages (SMS) for distributing urgent information was suggested by some intermediaries and end-users as a potential channel that would reach the entire population and that could be valuable for people with hearing impairment, people with low literacy skills or foreign-language speakers (PART 4 – Chapter 3 and PART 5 – Chapter 1). However, at the same time there was some concern that text messages like these would be mistaken for phishing or advertisements, causing the end-users not to open the message (PART 5 – Chapter 1). Email was also briefly mentioned as a potential channel, however, it was generally not regarded as an accessible channel to communicate crisis information to most of the target groups, as they do not (frequently) consult this channel (PART 4 – Chapter 1 and PART 5 – Chapter 1).

In the validated guideline, email was also not recommended as a channel for sending crisis communication, mostly because of the digital literacy barrier and the largely textual form of emails (PART 2). Using text messages, on the other hand, was recommended by the expert panel to reach certain target groups in times of crisis (PART 2). Text messages are especially useful for reaching people with hearing impairment, but also people with low literacy skills or foreign-language speakers with the condition that the accessibility of the characteristics is taken into account (SEE 2.3 CHARACTERISTICS OF MESSAGE FORMS).

3.5.4.4 APPS

Aside from popular social media apps, such as WhatsApp and Facebook (SEE 3.2.1.1 SOCIAL MEDIA), two other apps were mentioned as potential channels to disseminate COVID-19 crisis communication successfully: the Coronalert app for people with visual impairment as well as for foreign-language speakers (PART 4 – Chapter 3 and PART 5 – Chapter 1) and the multilingual app ‘Crisis Information Translated’ developed by the Flemish Agency of Integration for foreign-language speakers (PART 4 – Chapter 3).

3.5.4.5 ONLINE INFORMATION VIA QR CODES, HYPERLINKS AND DOWNLOADS

When sharing COVID-19 crisis information, either online or offline, there is a possibility to refer to more detailed or related information through a QR code, a hyperlink to a website or a download link. For some target groups, this way of communicating can pose as a barrier, because they are either unfamiliar with it (specifically, a QR code), they do not trust the link that was sent to them, or they are not motivated enough to look for further information (PART 4 – Chapters 1, 3 & 4 and PART 5 – Chapter 1). These barriers are mostly applicable to people with a low level of (digital) literacy. People with visual impairment also find it difficult to access information in this way, because the formats of the download or hyperlinks are often not adapted to their visual

impairment (PART 4 – Chapter 4). However, such referrals do have an important advantage: additional information can be provided in this way, without overcrowding the original communication product (PART 4 – Chapter 1 and PART 5 – Chapter 1). For example, a poster in Dutch or French which also includes a QR code that directs people to the translated version in written or audio form or a video in sign language can be very useful for (friends and family) of foreign-language speakers or people with hearing impairment (PART 4 – Chapters 1, 2 & 3).

3.5.5 NON-DIGITAL CHANNELS

3.5.5.1 TRADITIONAL MEDIA

Traditional media includes television channels, radio channels and newspapers. Out of all channels (including digital channels), television was mentioned to be one of the most popular, widely used and accessible channels across all target groups (PART 4 – Chapters 1-4 and PART 5 – Chapters 1-3). Because of its wide reach, it is regarded as a very effective and accessible channel to crisis communicate. Governments are advised to offer enough of its crisis communication through television channels. Some specific suggestions included that crisis messages should be broadcasted during commercials (PART 4 – Chapter 1 and PART 5 – Chapter 2), after work hours or before or after the news (PART 4 – Chapters 2 & 3 and PART 5 – Chapter 2), and preferably both on regional and local channels (PART 4 – Chapters 1 & 2 and PART 5 – Chapter 2) ((SEE ALSO 5 MESSAGE TIMING, FREQUENCY AND QUANTITY). News broadcasts and press conferences were reported to be valuable information sources, mainly for people with sensory impairment but also for foreign-language speakers and people with low literacy skills (PART 4 – Chapters 1-3 and PART 5 – Chapters 2 & 3). Yet, these types of broadcasts are not always accessible in terms of their characteristics, i.e. in terms of speech rate or length (SEE ALSO 2.3 CHARACTERISTICS OF MESSAGE FORMS), thus it was advised that governments also aim to broadcast accessible adaptations of crisis messages, such as summary videos in sign language or Easy Language, on television (PART 4 – Chapters 3 & 4 and PART 5 – Chapter 2). Radio and newspapers were also mentioned as a popular channel for end-users to receive crisis information, especially for the older population (PART 4 – Chapter 3 and PART 5 – Chapters 1 & 2).

3.5.5.2 INFORMATION HOTLINES

An official hotline dedicated for questions concerning the COVID-19 crisis at hand was deemed a valuable and accessible channels for all target groups. The COVID-19 dedicated hotline was highly appreciated, especially by people with hearing impairment since a remote interpretation service was made available (PART 4 – Chapters 2 & 4). In order to improve the accessibility and effectiveness of this channel, it was recommended to:

- make people (more) aware of the hotlines by mentioning the telephone number on other communications (PART 3 and PART 4 – Chapter 3);
- extend the availability of the hotline as well as the remote sign language interpretation service for people with hearing impairment (PART 4 – Chapters 1-3);
- make the hotline accessible to foreign-language speakers too by hiring multilingual operators (PART 4 – Chapter 1).

In general, information hotlines were seen as more accessible than indirect communication channels, such as the distribution of printed media, but less accessible than face-to-face

communication with intermediaries (PART 4 – Chapter 3) (SEE 3.2.2.5 FACE-TO-FACE COMMUNICATION).

3.5.5.3 POST

Sending crisis messages in the form of letters or information brochures through the post was suggested a few times as a good alternative communication channel for sending crisis information to people who have no or little digital literacy (PART 4 – Chapters 1 & 3 and PART 5 – Chapters 1 & 2). However, there were some concerns that sending crisis messages via mail would not reach the desired effect. First of all, people with low literacy skills and foreign-language speakers can find it difficult to distinguish between important and less important mail, such as advertisements, and thus often throw letters in the trash immediately (PART 4 – Chapter 3 and PART 5 – Chapter 1). Another reason for throwing away unopened letters received by post is because people with a low socioeconomic status are sometimes too afraid to open envelopes sent by official institutions, as they think it will be a bill or a warning notice (PART 4 – Chapter 1). Lastly, it was questioned whether foreign-language speakers would benefit from receiving COVID-19 crisis messages through the post, because the information would have to be written in their native language to be accessible, and sending a letter in a large variety of different languages is not feasible (PART 4 – Chapter 3).

3.5.5.4 DISTRIBUTION OF PRINTED MEDIA

The distribution of printed crisis messages (e.g. brochures, posters, flyers, etc.) can be an effective and accessible COVID-19 crisis communication channel. However, the context of the distribution and the form of the material itself are decisive factors for its degree of accessibility and effectiveness. Regarding the context of the distribution, it is argued that delivering messages in printed form to people who have a low level of literacy and foreign-language speakers usually only works well when these prints are supported by personal communication from a confidant, such as a family member or a teacher (SEE ALSO 3 OUTREACH). Simply handing over the printed information is not enough to truly reach these target groups, but the fact that the material can be handed directly to the end-users by an intermediary who can answer their questions and can then give them the material to take it home is considered very valuable (PART 4 – Chapter 2 & 3).

Asides from the context, the physical place where the printed information is distributed also influences the reach and accessibility of this channel. During the roundtable and focus group discussions, there was a strong emphasis on the visibility of COVID-19 crisis messages in public spaces, such as train stations, bus stops, schools, places of worship, apartment buildings, doctor's waiting room, etc. (PART 4 – Chapters 1-4 and PART 5 – Chapter 2). Repeated exposure to printed media in public places was said to be effective, since it makes memorising the information easier (PART 4 – Chapter 1 and PART 5 – Chapters 1 & 2). Unfortunately, the spread of information through public places also has its drawbacks: in times of a pandemic outbreak such as COVID-19 and in times of crises in general, public spaces are less frequented, so the information that is displayed in these spaces does not effectively reach everyone (PART 4 – Chapter 2).

With regards to the form of the printed media, it was noted that printed communication material does not perform well when it contains too much text (PART 4 – Chapter 1). Instead, these materials should effectively combine visuals with short texts in Easy Language (SEE ALSO 2.3.1

EASY LANGUAGE AND 2.3.5 VISUAL FEATURES). In addition, printed media is almost always inaccessible to people with visual impairment, thus spreading crisis information through alternative channels is highly advised (SEE 3.1 DIVERSIFICATION OF COMMUNICATION CHANNELS).

3.5.5.5 FACE-TO-FACE COMMUNICATION

As already briefly mentioned earlier, personal face-to-face communication is a very effective channel to convey COVID-19 crisis messages to end-users who are generally harder to reach because of certain linguistic or sensory barriers they can experience in accessing the communication. It was noted that personal face-to-face communication is especially effective for foreign-language speakers and people with low literacy skills , but people with sensory impairment also attach great importance to personal communication (PART 4 – Chapters 1-4. Since the start of the pandemic, many intermediary organisations have sought ways to create opportunities for vulnerable target groups (in particular isolated or elderly individuals) to meet with them in person, provide important crisis information and offer a space for them to ask questions (PART 4 – Chapters 2 & 3). These types of initiatives were very successful, but unfortunately remained underutilised by the government (PART 4 – Chapter 2 & 4).

One of the reasons why face-to-face communication works so well is because of the fact that organisations usually reach out to the end-users themselves, since people with low literacy skills or foreign-language speakers often do not actively seek out information on their own (PART 4 – Chapters 3 & 4) (SEE 4 OUTREACH). Another reason for the effectiveness of personal face-to-face communication is that these target groups usually place less trust in governments and official institutions, and attach a lot of importance to who the sender of the message is (PART 4 – Chapters 1-4 and PART 5 – Chapter 2) (SEE 4.2 TRUST AND ACCEPTANCE).

One downside to personal face-to-face communication is that it is not always practically feasible, especially not in times of a pandemic, in which it is advised not to meet in person, or when information is updated frequently (PART 4 – Chapters 3 & 4). The latter also proves to be cumbersome for intermediaries, who are forced to bear the burden of constantly staying up to date and organising contact moments with their target audience regularly and repeatedly whenever information has changed (PART 4 – Chapter 3).

4 OUTREACH

Even though effective outreach of COVID-19 information to vulnerable groups is essential and of paramount importance, participants in several roundtable discussions reported that it is **challenging** to reach groups at risk for communication vulnerability and exclusion (PART 4 – Chapters 3 & 4). Specifically, people with low socioeconomic status and people with restricted access to the Internet or digital technology tend to not (pro)actively seek out information, and only receive COVID-19 information **passively through informal contacts and peer exchanges**. For this reason, printable versions of flyers, which can be spread and handed out in the communities of vulnerable target groups (e.g. schools, churches and community spaces), were reported in roundtable discussions to be effective, since successful outreach to these groups depends to a large extent on **conversations** and personal **face-to-face communication with peers or with people in a bridging role**. In the following sections, we explain in some more detail the recommendations with regard to (1) the importance of such intermediaries, (2) the impact of the form and channel on the information recipient's trust and acceptance of the message, and (3) how the type of sender of the message can also impact the effectiveness of the outreach of COVID-19 communication by the federal government.

4.1 THE IMPORTANCE OF INTERMEDIARIES

For all the target groups topicalised in this project, the recommendations gathered in the roundtable discussions and focus group discussions underlined the paramount importance of **the intermediary approach** in reaching out to these groups effectively with COVID-19 information. COVID-19 crisis communication by the federal government was often not actively searched for and was experienced as rather complex to comprehend by vulnerable end-users. Therefore, a mediator was reported in several roundtable discussions as being crucial to introduce and re-explain the information in more accessible form and to provide more communication about the COVID-19 communication products in a personalised manner (PART 4 – Chapters 3 & 4). Such intermediaries – including social workers, community workers, association workers or helpers, employers, doctors or pharmacists, school staff, intercultural mediators, etc. – are typically known by the target groups in **a relationship of trust**, and considered to be reliable sources for information. Furthermore, intermediaries are familiar with the communicative needs of the specific target groups and therefore best positioned to translate the information into their codes and realities.

The successful nature of the intermediary approach was also confirmed by end-users who participated in focus group discussions. During the focus group discussions with foreign-language speakers and people with a low socioeconomic status in Flanders, for example, participants confirmed that COVID-19 government communication materials often reach them only through an intermediary (PART 5 - Chapter 1). Moreover, during the focus group discussions with people with low socioeconomic status in Wallonia, participants highlighted the importance of a personal conversation with the intermediary in which they were able to express themselves about their experiences, discuss and debate the given information, develop their own opinion, and make an informed decision (PART 5 - Chapter 2). For this reason, it is important to **diversify the forms and channels** of communication of COVID-19 government information enough to allow for materials to be put to use and disseminated by intermediaries of various stripes.

In the validated guideline the use of intermediaries to reach certain target groups is also highlighted as an **important precondition** for accessible and effective crisis communication (PART 2). However, it was pointed out that the use of intermediaries is not equally desirable for all target groups in question. For foreign-language-speaking newcomers, the deployment of in-group intermediaries (i.e. persons who belong to the social-cultural group of the recipient) can be positive, since they are able to summarise the communication appropriately (in the target group's own language), and, because of their socio-cultural affinity, they may inspire more confidence in the message and the governmental crisis policy. However, for people with a migration background who have been living in Belgium for a longer time, in-group intermediaries can be perceived as negative and stigmatising according to the expert panel; people with a migration background often do not like to be seen as a group that only wants to be approached by its own group members. For people with sensory impairment, intermediaries are generally seen as undesirable. The expert panel judged that when the use of intermediaries is necessary for people with hearing and visual impairments, the communication is not inclusive enough. People with sensory impairment should not be dependent on third parties to receive, have access to and understand COVID-19 crisis communication.

4.2 TRUST AND ACCEPTANCE

A key element in effective outreach of COVID-19 government communication on a global level is trust, which plays an important role in message acceptance by the recipient. Participants in both the roundtable discussions and focus group discussions foregrounded a relative **lack of trust in the government** as an important barrier. This degree of loss of trust in governmental authorities during the COVID-19 pandemic is in line with research and observations in other countries around the globe and highlights the international scale of this problem (see also validated guideline, PART 2). According to some participants in the roundtable and focus group discussions, such mistrust runs the risk of increasing by the constantly changing information provided by the government (PART 4 – Chapter 3), by the perception that politicians are not transparent (PART 5 - Chapter 2), and by the lack of logic behind some measures which were experienced by some end-users as inconsistent, not credible not making sense (PART 5 – Chapters 1-3).

Additionally, both intermediaries who participated in the roundtable discussions as well as individuals with low socioeconomic status and foreign-language speakers who participated in focus group discussions pointed towards the **tone of the message** as potentially having a negative impact on the perceived trustfulness of the message: specifically the authoritarian, pedantic, repressive, injunctive, infantilising or stigmatising tone of certain COVID-19 communication materials was criticised in this respect (PART 4 – Chapters 2 & 3 and PART 5 – Chapter 2).

Next to the tone, overly simplistic and motivational information, in which **nuance** is absent, was also mentioned in numerous research activities as having a negative effect on the trust of the recipients (PART 3; PART 4 – Chapters 2-4 and PART 5 – Chapter 1). Instead, participants of the focus group discussions mentioned that open and honest communication would be more beneficial to enhance trust, as the provision of clear, accessible and objective explanations would allow individuals to make informed and meaningful decisions for themselves. Conversely, lack of detail or oversimplifications of information were reported to run the risk to lead to

unanswered questions and an increase of mistrust (PART 4 – Chapter 3). This was also reflected in the validated guideline, which does not recommend that COVID-19 crisis communication conceals exceptional situations or exceptions to the rule when communicating a safety or health measure, but instead suggests to adopt an open and proactive communication approach (PART 2). In this respect, it is advisable to communicate the rationale of the crisis measures and the possible emergence of exceptional situations in advance, as this results in a less pronounced decline in confidence (PART 2). However, there is also a need for clear and straightforward communication, where the most important information is highlighted. There was some concern among the expert panel about mentioning exceptional situations and other considerations, because this could cause more noise and make the message more complicated. Thus, it must be ensured that the essence of the message remains central and that minor exceptions do not receive too much attention, but instead are only mentioned at the end. (SEE ALSO 2.3.1 EASY LANGUAGE)

In spite of the considerable loss of trust in the government which currently exists, **printed communication materials combined with personal, spoken communication** by intermediaries, close contacts or confidants who enjoy trust was argued by roundtable discussion participants to be effective in countering the lack of distrust in the government. Just handing information materials over is not enough, as information is more accepted if it is presented by someone who one knows personally and trusts. In the case of urgent communication, when face-to-face verbal transfer of information in person is not possible, roundtable participants indicated that intermediaries could also resort to other channels and forms, such as text messages, WhatsApp group messages and phone calls. (SEE ALSO 3.2.2.4 DISTRIBUTION OF PRINTED MEDIA AND 3.2.2.5 FACE-TO-FACE COMMUNICATION)

The specific **form** of the communication product and the **channel** of dissemination were also reported to have an impact on the perceived trustworthiness of the message by both roundtable discussion and focus group discussion participants. The following recommendations and points of attention were mentioned in this respect:

- **The combination of audio with an image** was mentioned as a good way to retain the listener's attention and stimulate their trust;
- The use of channels such as **text messages or WhatsApp messages from anonymous government telephone numbers** that were not well-known to the general public was not recommended, as some do not trust URL links and are concerned about phishing. In general, it is sometimes difficult to distinguish between legitimate and untrustworthy messages. More work should go to make the government telephone numbers for urgent communication widely known (PART 4 – Chapter 3);
- The use of **an official, familiar logo** of the federal or Belgian government on the communication product was reported to inspire more confidence and trust in the material and the message (PART 4 – Chapter 3 and PART 5 – Chapters 1 & 2).

Starting audio or video materials with the phrase **“this is a message from the government”** was advised to be avoided, as it runs the risk of losing the attention of people who are not trustful of the government. Instead, intermediaries in the roundtable discussions suggested this information should be mentioned at the end of the audio or video (PART 4).

The lack of trust in the government is also touched upon in the validated guideline, more specifically in the suggestion to use **‘verified senders’** when distributing crisis messages online (SEE ALSO 3.5.3.1 SOCIAL MEDIA). Quantitative evidence points out that verified sources (i.e. senders

with a check mark next to their name on social media) generate more knowledge and search intent amongst end-users than other sources on social media (PART 2). The expert panel agrees with this in part, but also interjects that some end-users might not understand what such a verification symbol means and that confidence in the government is currently very low.

4.3 MESSAGE SENDERS

In light of the reported lack of trust in the government and official COVID-19 communication, the following senders or mediators of senders were foregrounded as enjoying more trust by the target groups topicalised in the project:

- **Intermediary organisations in civil society** and **proximity workers** such as social workers, user-representatives and teachers (specifically for people with a low socioeconomic status, people with sensory impairment and foreign-language speakers) (PART 4 – Chapters 1 & 2 and PART 5 – Chapter 3);
- **Experts and health professionals** such as doctors, pharmacists, and nurses (PART 2; PART 4 – Chapters 1-4 and PART 5 – Chapter 3);
- **Friends, family and acquaintances** who form part of the existing social network or community (both physical and online) (PART 4 – Chapters 1 & 3 and PART 5 – Chapters 2 & 3).

The validated guideline also suggested to use doctors to send crisis messages. This suggestion was based on a study which shows that if a doctor delivers a health crisis message via a video the knowledge of and willingness to follow crisis measures increases (PART 2). According to the expert panel, doctors generally enjoy a position of trust and authority in the eyes of the target groups.

5 MESSAGE TIMING, FREQUENCY AND QUANTITY

Important factors to consider for the accessibility of COVID-19 government communication in Belgium relate to the timing of the message, the high frequency of new (and changing) information, and streamlining the quantity of communication materials to be disseminated.

5.1 TIMING

The time at which accessible COVID-19 information is **publicly broadcasted** can have an impact on how accessible this information is to end-users. Specifically for individuals with hearing impairment, intermediaries recommended to not only broadcast accessible information adapted to the needs of this group (such as press conferences with sign language translations on television) during the working day, but also just before or after the 19:00 news to allow working people to have access to it. (SEE ALSO 3.2.2.1 TRADITIONAL MEDIA).

5.2 FLOW FREQUENCY OF NEW AND CHANGING INFORMATION

One of the main points of criticism formulated on the COVID-19 governmental information campaign by both intermediaries and end-users in the roundtable and focus group discussions consulted pertains to the **constant flow of new and rapidly changing information** (PART 4 – Chapter 2 & 3 and PART 5 – Chapter 1-3).

Frequent updates of government measures combined with the regional differences in the applicability of measures were experienced and perceived by end-users as **contradictory**. This heightened end-users' confusion and undermined their willingness to listen, and ultimately decreased their receptiveness of the information (PART 5).

Other impeding factors mentioned included (1) the circulation of (outdated) contradictory information, (2) the leaking of information from preparatory sources ahead of official communication on new government measures and (3) the contestation of measures in the press by experts. These factors made end-users feel **lost in the flood of information** and uncertain to distinguish between which **source of information** was to be trusted (PART 5). The circulation of outdated and contradictory information on health-related advice and governmental measures is therefore to be avoided to the fullest extent.

Given the rapidly changing nature of government measures and rules, intermediaries recommended to date communication materials to delimit the availability and pick-up of outdated information (PART 4 – Chapters 3 & 4).

5.3 STREAMLINING THE QUANTITY AND SCATTEREDNESS OF INFORMATION

While one of the strongest recommendations and guidelines on inclusive and accessible COVID-19 government communication in Belgium pertains to the diversification of the message forms and communication channels (SEE SECTIONS 2.2 AND 3.1), intermediaries also warned against the

sheer **quantity and multiplication** of communication materials without a clear **strategy of harmonization and streamlining** (PART 2; PART 4 – Chapters 1-4 and PART 5 – Chapter 2). Indeed, in all focus group discussions some participants mentioned the overwhelming, excessively large amount of information, both in single form and across forms and channels, and experienced this scatteredness of information as a source for anxiety, weariness and confusion (PART 5). In particular, the multitude of federal, regional, provincial and local sources for communication materials was particularly challenging (PART 4 – Chapter 3). In line with recommendations that the federal government function as the facilitator of COVID-19 information, such centralised facilitation should also further streamline the production and distribution of communication products and reduce the scatteredness of information.

The validated guideline confirms this recommendation based on qualitative evidence: it is suggested by the expert panel that governments should not send too many crisis messages to the target groups, as a higher message frequency could lead to less recall of the information in the message (PART 2). Although this was partly affirmed by the expert panel – indicating that the target group often received too much information through various channels which lead to confusion – they also stated that repetition of messages can have a positive effect too. Supporting evidence of the latter was also uncovered in the focus group discussions, where the participants had less difficulties understanding messages which contained information that has been repeated many times since the beginning of the pandemic (PART 4 - Chapter 4 and PART 5 – Chapter 1). However, keeping an eye on information overload is still important so that end-users do not neglect official channels. A perfect balance would be to repeat messages in different *forms* but to keep the *content* of the message consistent (PART 2). In order to streamline the crisis communication, specific communication moments should be planned, information should be clustered and specific changes in the information should be highlighted (PART 2).

6 COMMUNICATION STRATEGY AND PRODUCTION PROCESS

In this section, we discuss a series of issues on the level of strategy and production process which the ICC project's research activities have highlighted and which also need to be taken on board when considering the accessibility of government COVID-19 crisis communication.

6.1 DESIGN FOR ALL FROM THE START

The ICC project's results underline the importance of **integrating accessibility as early as possible in the communication development process** and highlight the expectation that the integration of necessary access provisions should be the norm in government communication. Project results report that several groups regularly encountered barriers to access official communication during the pandemic. As a result, various associations started to develop their own materials adapted to the needs of their target group, such as materials with text in Easy Language, subtitling, translation and sign language, and disseminate these materials through additional channels to achieve a wider outreach (PART 4 – Chapter 2). Such a decentralised, uncoordinated approach was reported to have considerable downsides, such as inconsistent communication, a proliferation of information and receiving important information with a delay in the case of sign language translation (PART 4 – Chapter 3). In addition, a pro-active approach to accessible information was suggested by intermediaries to also offer efficiency gains, as fixing communication barriers afterwards by the addition of access services is more difficult and less effective than creating a product without barriers from the start (PART 4 – Chapter 3).

In this regard, it is important to consider a **Universal Design (UD) approach⁶⁵ as part of an accessible communication strategy** (PART 4 – Chapter 3). In a UD approach, a communicative product is designed in such a way that as many barriers as possible are eliminated, so that it is accessible to multiple target groups without the need for additional adaptations. For example, a video in which the voice-over consciously includes information that is visualised, is more easily accessible to a person with a visual impairment without the need to add audio description. Or, a written text that adheres to Easy Language guidelines from the start can be accessed by a wide array of audiences, without the need for a separate Easy Language version.

During the roundtable discussions in particular, a Universal Design approach was greatly supported by the intermediaries as an approach that has the potential to eliminate a series of experienced barriers:

- information can be developed and shared quicker;
- no more costly and timely adaptations need to be made;
- less proliferation of various communication products from various sources is created;
- and,
- the information reaches multiple target groups simultaneously.

⁶⁵ In a Universal Design approach, a communicative product is designed in such a way that as many barriers as possible are eliminated, so that it is accessible to multiple target groups without the need for additional adaptations.

In addition, accessibility characteristics, as discussed earlier in this synthesis, in a Universal Design approach have the potential to not only make the communicative product more accessible to specific groups, but to improve the overall accessibility of the communication for all citizens (PART 4 – Chapters 3 & 4).

As indicated by roundtable discussion participants (PART 4 – Chapters 3 & 4) and demonstrated in the product development phase (PART 3), Universal Design, however, is not easy to achieve as various needs and sometimes conflicting preferences need to be taken into account and reconciled. Certain disabilities bring specific peculiarities with them that are not shared by those with other vulnerabilities. For people with hearing impairment who communicate in spoken language, for example, the combination of drawings, the text in the video, the subtitles and the audio can become overwhelming. Conversely, for hearing audiences, subtitles or a sign language interpreter on screen can be distracting. In addition, the project results have also reported that certain general messages formulated for all, were not applicable to the life realities of certain target groups, because they were not concrete enough, too abstract or not adapted to the economic, cultural, social environments and life realities of certain end-users. Some intermediaries have warned against an overtly top-down approach, which results in a lack of differentiated messages, which affect different audiences in a differentiated way. They insisted that adapting communication should be understood as more than just translating messages in different ways, but also taking into account life circumstances of citizens, as everyone has a right to information adapted to their needs and context (SEE ALSO SECTION 7 BELOW). For example, the advice to keep 1,5 meters distance is not adapted to the circumstances of a person with a visual impairment, or the advice to isolate is not feasible if the living conditions of the end-user do not allow for this. Another difficulty encountered was related to the fact that at some point during the pandemic outbreak people could only visit stores on their own and could consequently not be accompanied to enter stores. Deaf and blind people therefore found themselves carrying out activities alone that they were used to carry out with a companion. They felt very vulnerable and they sometimes had to face inappropriate reactions of other people in their presence, even if some of these reactions were actually meant to help them (PART 4 – Chapters 1, 3 & 4 and PART 5 – Chapter 2). In such cases, the specific needs of different target groups may translate into target group-specific communication products.

In this respect, a clear understanding of the needs, and preferences of target groups is required to determine what strategy will be most appropriate (PART 4 – Chapter 3), and collaboration with experts is encouraged to achieve this (SEE 6.3 COLLABORATION, PARTICIPATION & TRAINING).

As a consequence of the above results, the recommendation arises that an inclusive crisis communication strategy seeks a well-considered **balance between communicative products that are designed to be as accessible as possible for all from the start, as well as the addition of target group-specific adaptations when necessary.**

6.2 FACILITATING COMMUNICATION FOR INTERMEDIARY ORGANISATIONS

The importance of collaboration with intermediaries as part of an inclusive crisis communication strategy was highlighted, as the results of the ICC project's research activities point to the fact that one of the main roles of the government (besides directly disseminating communication

products to end-users), is to **facilitate communication via intermediaries to citizens**. The government should provide local governments, and in particular third parties, such as civil society organisations and non-profit organisations, with accessible communication materials through a central platform, and support intermediaries and frontline workers by providing support and necessary background information. This necessary background information can, for example, concern complex health information or scientific evidence, the governments communication strategy, or the legal framework for the provision of translations in a crisis context. Governments should focus on developing materials both intended directly for end-users, as well as communicative products intended to inform intermediaries and support practitioners when reaching out to end-users in concrete situations. This way, civil society organisations can maximally fulfil their role as intermediaries, as they are close to their target groups and their intermediary role are an important tool in creating outreach (SEE ALSO 4 OUTREACH). Such a central coordination platform can help to reduce experienced barriers such as scatteredness of the information, excessive amounts of communication materials from different sources and lack of consistency of materials (PART 4 – Chapters 1, 3 & 4).

6.3 COLLABORATION, PARTICIPATION & TRAINING

A key element in the development of a COVID-19 crisis communication strategy and production process that has been highlighted at several stages of the project (PART 4 and 5) is the importance of **collaboration with stakeholders, intermediaries and experts**, the **participation of target groups** in the creation process of materials (co-creation as well as testing) and the **need for training** of communication team members. Such collaborations are crucial in ensuring the communicative products are adapted to the real needs of end-users of all abilities and feedback can then be continuously taken into account.

Particularly roundtable discussions, for all target groups (PART 4 – Chapters 3 & 4) have emphasised the need for the government to create a **network of actors** (field actors, professionals, associations, researchers, experts and the different levels of government) who are either experts in their domain or who work directly with target audiences, in order to share knowledge and expertise and be in touch with the concrete needs of different target groups, in order to develop and evaluate communication products, channels and strategies before dissemination, to facilitate feedback and ensure follow-up from relevant stakeholders to government(s).

A second key element is the **involvement of end-users in the creation process of communication materials**, at all levels of strategy and development (defining contents, forms and channels of the communication products). Such participation is relevant for products following a Universal Design approach, but particularly when developing target specific communication products that can be operationalised in many ways. Some suggestions from the roundtable and focus group discussions by way of illustration include:

- consulting experts and experts by experience during the production process, so that they can proofread and check the communication material and make adjustments before it is published and/or distributed;
- translations produced by or at least with native speakers in order for the information and its source to be as clear, correct and trustworthy as possible for the target groups;

- testing materials with various end-users before dissemination;
- working with sign language users and/or Deaf sign language interpreters (PART 3; PART 4 – Chapters 1-4 and PART 5 – Chapter 1);

Finally, during the roundtable discussions (PART 4 – Chapter 3) and in the product development phase of the project (PART 3), intermediaries and experts stressed the importance of undertaking actions in terms of training and support for the people who create communication materials. Apart from collaboration and participation, it is equally important that members of governmental communication teams who create products are aware of accessibility issues, access needs and attention points, and that they have the possibility of developing the necessary skills to develop products and know when to call upon external expertise.

7 INCLUSIVE COMMUNICATION AS PART OF AN INCLUSIVE SOCIETY

The ICC project started from the premise of the right to access to information (SEE PART 1 OF THIS SUMMARY) and focussed on ways in which this access could be guaranteed for different target groups. The project results, however, have also underlined the fact that efforts towards a more inclusive communication strategy go hand in hand with efforts for a more inclusive society and (social) environment. While this encompasses a wide range of issues that fall well beyond the scope of the current project and recommendations, the following issues were raised during the project's research activities.

First, participants of roundtable discussions and focus group discussions mentioned that the content of COVID-19 communications materials and measures taken by the government were not always in line with the realities of peoples' lives and that government and society should take those needs into account more in a crisis context (SEE ALSO 6.1 DESIGN FOR ALL FROM THE START).

Second, it was mentioned that society and government could take initiatives to empower people to be able to participate more fully in society. For example, people with visual impairment would benefit from training in the use of new technology. Too often it is assumed that blind people will learn to use (new) technologies on their own (PART 4 – Chapter 3). Another example is strengthening the level of health literacy of target groups. For some participants, this means strengthening the development of critical awareness while offering spaces for debate (PART 4 – Chapter 4).

8 LIMITATIONS AND AVENUES FOR FURTHER RESEARCH

In this final section of the report, we briefly outline the main takeaways of the project in terms of the wide research gap the project activities uncovered, the possible avenues for further research, the contribution of the project to both societal and academic fields of practice, and finally, the limitations of the project.

8.1 RESEARCH GAP & AVENUES FOR FURTHER RESEARCH

At the start of the COVID-19 pandemic in March 2020, governments had to quickly produce and disseminate crisis information to their citizens. Yet, the communication they provided was not fully always adapted to citizens who can experience sensory, linguistic, textual and cultural barriers in accessing information, which hindered the correct transfer and effective outreach of the information to these target groups. This observation formed the basis on which the ICC project was first conceived. However, an initial search for existing (international) research and evidence-based recommendations for inclusive and accessible crisis communication on COVID-19 (or related health crises) led to the conclusion that a **major research gap** exists in this respect. During the project's lifespan, the severity of this lack of research on accessible communication in crisis contexts became more and more clear. Although there is (qualitative) research and ample evidence from practice that underlines the importance of accessibility and that identifies existing barriers and how to overcome them, (quantitative) research on the effectiveness of different solutions to increase access is virtually non-existent. This was confirmed also in the systematic rapid review (see PART 2), in which around seven thousand studies were retrieved based on a keyword search and subsequently screened for quality and relevance (i.e. about accessible crisis communication forms, channels and outreach methods for vulnerable target groups), while only twelve studies met the necessary criteria for inclusion in the end.

In addition to identifying this major research gap, the ICC project also brought to light the full complexity behind inclusive crisis communication strategies and has highlighted the need for an **interdisciplinary approach** (bringing together academic expertise from various fields and backgrounds) as well as an **transdisciplinary approach** (bringing together (academic experts) with governmental and societal stakeholders). The study of accessible COVID-19 crisis communication for all, indeed resides at the crossroads of several disciplines, including communication sciences, health studies, sociology, linguistics, translation studies, etc. What is more, the ICC project has underlined the importance of a participatory research approach when it comes to the study (and development) of accessible crisis communication which involves relevant stakeholders and end-users with first-hand knowledge and experience.

Against this background, the ICC project has identified a few key challenges as avenues for further research. Apart from the need for **replication** of the ICC project's results in contexts beyond Belgium, the project has also highlighted the need for solid **methodological frameworks** for participatory and collaborative research approaches with stakeholders and end-users, particularly when it comes to people with a sensory impairment. A second avenue for further research concerns the delineation and identification of all target groups that can experience communication vulnerability and barriers to crisis communication. While traditionally studies focus on the needs of specific target groups, the ICC project has also underlined the importance

of **intersectionality** and the fact that certain barriers apply to various target groups and that certain people experience several barriers simultaneously. This requires a further exploration of personalised communication for specific target groups as well as universalist approaches that increase the accessibility of crisis communication for all, taking into account communication and accessibility needs across various groups. Another issue that has come up in the ICC project, is the proliferation of digital communication at the expense of print and face-to-face communication which puts people with low digital literacy skills at a disadvantage. More research on how to overcome the **digital divide** is therefore warranted. Finally, a range of topics related to **multimodal communication and translation** have surfaced that require further exploration, such as the accessibility of pictograms and visuals, the form of audio description of informative videos, to name but a few.

8.2 CONTRIBUTION & LIMITATIONS

The ICC project contributed to filling the major research gap outlined above, with a unique focus on recommendations and solutions for more accessible crisis communication from an inter- and transdisciplinary approach. It hopes to contribute to more accessible crisis communication in the future and to be a catalyst for more systematic interdisciplinary research in this area.

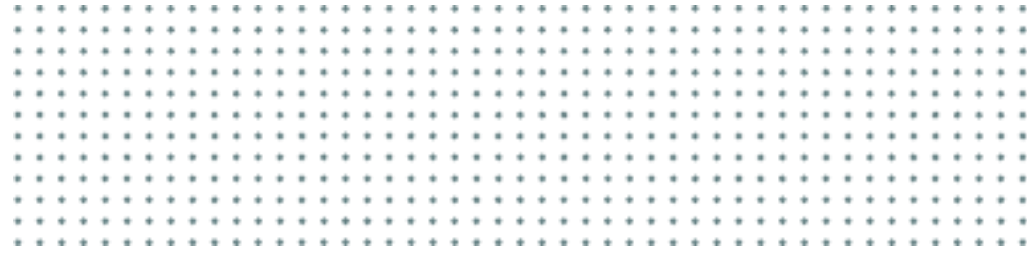
In this respect, the following limitations of the research need to be taken into account when reading and/or applying the research results:

Belgian-specific context: As indicated above, (quantitative) research on accessible crisis communication is almost non-existent. Apart from the systematic rapid review, the project focused mostly on qualitative research activities, such as the roundtable discussions and focus group discussions. As these were performed within the local Belgian context, the results are specific to this local context only. Extrapolation to other areas and contexts should therefore be done with care.

Multilingual and multi-regional research context: Since the ICC project is a research project on a national scale, we strived for equal representation of both the Dutch-speaking region and the French-speaking region and thus synchronise the research methods and activities as much as possible. Yet, in some research phases this was not always the case due to practical reasons.

Crisis research in a crisis context: The ICC project not only focused on inclusive communication strategies a crisis context, but also had to be rolled out and completed within a crisis context and the ongoing COVID-19 outbreak in Belgium (i.e. over the period February 2021 – March 2022). This had two main implications for the project's research activities. Firstly, the project had to be realized in a shortened time-span of only one year, in order for the research results to be applied and made available as soon as possible to allow for immediate pick-up in the fight against COVID-19 in Belgium. This implied that pragmatic decisions had to be made concerning certain research activities and the overall design of the project. For example, instead of working with consecutive project phases – first focussing on gathering information and evidence and then developing more inclusive communication materials – an iterative process was used for the roundtable discussions, product development and focus group discussions. Another example was the decision to opt for a rapid systematic review instead of a full systematic review. Secondly, the project had to adapt its activities to the ever-changing situation caused by the COVID-19 pandemic. Uncertain work situations and COVID-19 quarantines and illnesses posed a constant challenge for the project's research team. Moreover, research activities were encumbered to a certain extent, because direct face-to-face contact with the project's stakeholders was not

possible, which meant that all meetings of the project's research team and the round table discussions all took place online.



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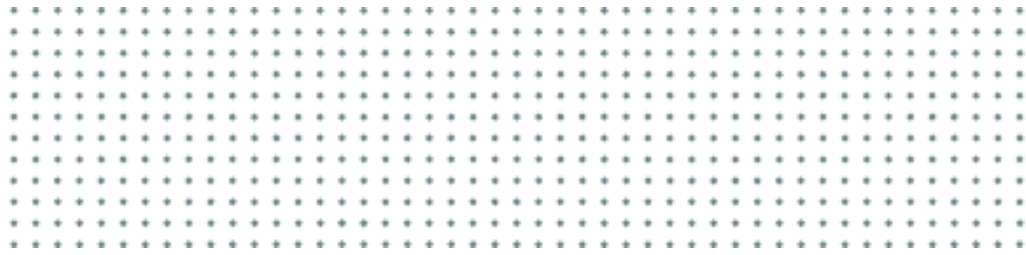
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APPENDICES

The appendices to this report can be consulted in the separate document accompanying this end report.