Flanders
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The HPV vaccination programme in Flanders

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HPV-vaccination in Belgium

- From 2007 onwards vaccines available in pharmacies in Belgium
  - → Quadrivalent vaccine Gardasil® (HPV types 6, 11, 16 en 18)
  - → Later: bivalent vaccine Cervarix® (HPV types 16 en 18)
  - → Partially reimbursed by health insurance

- Advice NITAG (Superior Health Council 2007 (nr. 8204):
  - → The Superior Health Council recommends yearly general prophylactic vaccination of one birth cohort of girls aged between 10 and 13 years with 3 doses of a HPV-vaccine
  - → No systematic catch-up vaccination for older girls
  - → No vaccination of boys

- So far no actualised advice of the NITAG (expected 2017)

The vaccination programme in Flanders

- Vaccines for the vaccination programme
  - → Based upon recommendations of the Superior Health Council
  - → As prevention in public health is a subnational responsibility and duty: decision making for implementation at the subnational levels (Flemish Community, French speaking Community/Walloon Region, Brussels)
  - → For Flanders: advice by the Flemish Vaccination Board with representatives of all kinds of vaccinators
  - → Vaccines contracted by public tenders including cold chain monitored transport and delivery directly to the consultation place of the vaccinators
  - → All vaccinators can order the vaccines online in an ordering system linked to a vaccination registry (Vaccinnet)
  - → All vaccines are delivered free of charge

HPV-vaccination programme in Flanders - organization

- School Health Services (SHS):
  - → all schools with an officially recognised educational programme are linked to a SHS. In the schoolyear of recommended vaccinations an invitation letter and an informative leaflet are given to all girls and their parents. When authorized, SHS give the vaccinations to the children without any cost.
- Other vaccinators: GPs or paediatricians:
  - → can get the vaccines frees of charge as well, ordered online;
  - → only a consultation fee must be paid, as for other consultations.

HPV-vaccination programme in Flanders - history

- From September 2010 onwards:
  - → yearly one cohort of girls in the 1st year of secondary school (11-12 years).
  - → main birth cohort of the 1st schoolyear of the vaccination programme: girls born in 1998

- Vaccines used in the vaccination programme:
  - → September 2010 – June 2014: Gardasil®, 3 dose schedule
  - → July 2014 – June 2018: Cervarix®, 2 dose schedule

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Vaccination coverage in Flanders

- EPI-based surveys (documented data)

- 2012: girls born in 1998 (1st vaccinated cohort)
  - 1st dose 87.5% (85.0-90.0)
  - 2nd dose 87.0% (84.4-89.5)
  - 3rd dose 83.5% (80.6-86.4)

- 2016: girls born in 2000
  (main vaccination schoolyear 2012-2013)
  - 1st dose 92.9% (90.4-95.4)
  - 2nd dose 92.8% (90.2-95.3)
  - 3rd dose 89.6% (86.4-92.8)
  - Considering correct 2-dose schedule: 91% fully vaccinated

Vaccines for the vaccination programme in Flanders

- Vaccines for the vaccination programme have changed in time (Gardasil®, Cervarix®)
- Follow-up of delivered vaccines in time to see eventual trends
- Number of doses of HPV-vaccines delivered per schoolyear

schoolyear	July-December	January-June	total	main birth cohort	equivalent fully vaccinated
2010-2011	55,088	41,392	96,480	**1998**	32,160
2011-2012	54,271	39,474	93,745	1999	31,248
2012-2013	53,433	40,157	93,590	**2000**	31,197
2013-2014	52,332	42,544	94,876	2001	31,625
2014-2015	39,269	30,033	69,302	2002	34,651
2015-2016	35,025	28,736	63,761	2003	31,881
2016-2017	35,596	28,933	64,529	2004	32,265

CAN HPV COVERAGE RATES OF OVER 90% BE REACHED WITH THE CURRENT VACCINES?

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BACKGROUND AND AIMS

Some types of human papillomavirus (HPV) causes cervical cancer, which is the 4th most prevalent cancer in women worldwide. Safe and effective vaccines have been developed and implemented in vaccination programs in most Western countries. Since 2010 HPV vaccines have been offered free-of-charge through a school-based system to all girls in the 1st year of secondary school in Flanders.

In 2016 the HPV vaccination coverage was measured in girls (born in 2000) who were vaccinated with a 3-dose scheme 4 years ago.

METHODS

Randomized 2016 EPI-based survey

- Selection in 111 municipalities - Flanders
- Parents interviewed at home
- Socio-demographic characteristics
- Vaccination history: documented data, Flemish vaccination-registry (Vaccinnet) or data from school health services or GP

HPV vaccination

- Offered in 1st year of secondary school
- Vaccination offered in 2012
- Three dose schedule: 0-1/2-6 months

Statistical analysis

- Complete vaccination = received 3 doses of HPV vaccine
- Descriptive statistics
- Univariate and multivariate analysis

Studies authorized by National Privacy Commission and approved by the designated ethical committees.

RESULTS

Data from 477 girls (born in 2000) of 488 interviewed (97.7%)

HPV vaccination coverage (proportion and 95%CI)

- Dose 1: 92.9 (90.4-95.4)
- Dose 2: 92.8 (90.2-95.3)
- Dose 3: 89.6 (86.4-92.8)

Sociodemographic profile similar to entire groups and similar to Flemish census data

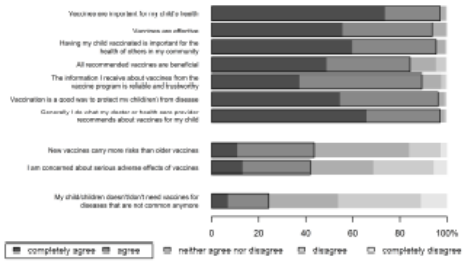

Figure: Attitude of Flemish parents of girls regarding vaccination

Factors associated with incomplete vaccination are parent with age >50 years*, non-core family* and non-Belgian origin (Europea**, non-European***)

Factors associated with higher tendency to disagree with statements on vaccination in general were scarce and associated with only one or two statements, except for parents of non-Belgian origin.

Parents from girls who had an incomplete or no HPV-vaccination had a significant higher tendency to disagree with most statements on vaccination, but not regarding adverse events following vaccination.

DISCUSSION

In comparison to other industrialized countries in which HPV vaccination programs in girls have been established, the coverage rate is very high in Flanders and almost 90% of the girls in the survey received three doses of HPV vaccination as recommended.

	1st dose	3rd dose
- UK:	91.1%	86.7%
- The Netherlands	61%	58%
- Germany:	63.4%	55.6%
- Denmark:	84%	63%
- Canada	72.3%	

A lot of epidemiological studies have proven the positive effect of HPV vaccination on infection and pre-cancerous lesions in women of HPV-vaccine-related serotypes (Mesher et al. 2016; Drolet et al. 2015). Additionally it was shown that a vaccination coverage of >70% decreases circulation of vaccine types in vaccinees, but also in boys/men of the same age (Chow et al. 2014). This last observation implies the development of herd immunity. Nevertheless, men who have sex with men will not be able to profit from this herd immunity (Chow et al. 2014).

Regarding trust in vaccination in general, it was shown that refusal of HPV vaccination was less common in parents who had high confidence in adolescent vaccination (Gilkey et al. 2016, Gilbert et al.2016). This is confirmed by our data since general trust in vaccination in our population is high and parents of girls with incomplete vaccination have lower trust in general as well.

CONCLUSION

- In Flanders the HPV vaccination program in girls seems consolidated as almost 90% of the girls born in 2000 received all recommended doses.
- Parents of these girls seem to have high trust in vaccination in general. Nevertheless, parents of girls with an incomplete schedule more often had lower trust in vaccination in general.
- Given the anti-HPV vaccine message which circulate on social media, it is important to consolidate the trust in this vaccine.

Study funded by the Flemish government

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Vaccination data for Belgium

- For the Walloon Region: no recent vaccination coverage data. In the last EPI-based survey, only vaccination coverage in young children was examined.
- School based coverage study planned at the end of this schoolyear - estimated coverage based upon the number of delivered vaccines: ±50%
- Reasons for differences:
  - → 1st year of the programme: ¼ of SHS didn't participate
  - → 2nd year: free choice for SHS to offer this vaccination - HPV-coverage after 2 years: ±30%
  - → Less tradition of vaccination by SHS (⇔in Flanders SHS have to offer all vaccinations of the vaccination programme)
  - → Influence of France and French press

Strengths and opportunities

- Strengths
  - → Well organized vaccination programme with systematic offer of vaccination by SHS (same age cohort as HBV-vaccination before)
  - → HPV-vaccines free of charge available at the consultation place of the different vaccinators (SHS, GP, paediatricians)
  - → Information available on leaflets and website
  - → When signs or rumours: contact between the Agency for Care and Health, Vaccination Board and academics (=> uniform and common communication, made available on websites and presented in vaccination symposium if possible)
- Opportunities
  - → Political commitment of Flemish Government (public health goal on lifetime vaccination)
  - → Homepage of Vaccinnet as an extra (fast) communication tool

Threats and weaknesses

- Threats
  - → Circulation of rumours in (“social”) media
- Weaknesses – dangers
  - → Undervaccinated groups (some resistance for HPV-vaccination in orthodox Jewish communities)
  - → Registration of vaccinations can still improve
  - → No follow-up of circulating rumours on the internet and “social” media

Conclusions

- HPV-vaccination of young girls is well accepted in Flanders. High vaccination coverage of about 90% could be reached.
- The systematic and well organised offering of HPV-vaccination by SHS and the availability of vaccines free of charge for all vaccinators contribute to reach and maintain this high HPV-vaccination coverage.
- As data are in the vaccination database of Vaccinnet, they don't get lost and can be used for future studies, relating vaccination data and data from cancer screening and cancer registries, as long as everybody uses the same personal identifier (national number).
- But: circulating rumours are a threat as for all countries

HPV-vaccination programme information leaflet (2016)

Enkele veelgestelde vragen over de HPV-vaccinatie

Wie kan gratis ingeënt worden?
Het gratis vaccin tegen HPV wordt jaarlijks aangeboden aan alle meisjes in het eerste jaar secundair onderwijs in Vlaanderen. Meisjes vanaf het tweede jaar secundair onderwijs kunnen wel gevaccineerd worden door de huisarts, maar niet met de gratis vaccins en niet door het CLB. Voor hen is er een gedeeltelijke terugbetaling bij de aankoop van het vaccin in de apotheek.

Waarom zijn er twee inentingen nodig?
Na één inenting maakt je lichaam nog niet voldoende afweerstoffen aan om goed en langdurig beschermd te zijn tegen een besmetting met de HPV-types. Bij de tweede inenting wordt de afweerreactie versterkt, waardoor je voldoende beschermd bent. Stoppen na één inenting is niet gevaarlijk, maar je bent dan niet voldoende beschermd tegen het virus.

»

«

Hoe groot is de kans dat je ooit een HPV-infectie oploopt?
Die kans is groot. Meer dan 80% van de mensen loopt vroeg of laat een HPV-infectie op. Meestal merken ze daar niets van. Het virus wordt het meest verspreid op vrij jonge leeftijd.

"Ik heb de folder gelezen, maar ik zit nog met vragen."

Extra informatie vind je op onze website **www.zorg-en-gezondheid.be/HPV**.

Voor meer informatie kun je ook altijd terecht bij **de huisarts of het CLB**.

Of stel je vraag aan de Vlaamse overheid. **Bel gratis 1700.**

www.zorg-en-gezondheid.be

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