

Role of HCP in measles control, example of Bulgaria

The role of HCP in HPV vaccination and screening programme implementation - Prevention and control of HPV and HPV related cancers in Romania

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MEASLES PREVENTION AND CONTROL IN BULGARIA

The General Practitioners (GPs) are the first level health care providers (HCP) in Bulgaria, involved in the prevention and control of measles

Control of measles

- Timely diagnosis of cases, samples for laboratory confirmation
- Treatment of outpatient cases at home, or recommendation for hospitalization in some situations (special Form for hospital admission)
- Registration of cases
- Tracing, registration, post-exposure prophylaxis of contact persons
- Mandatory notification within 24 hours (Rapid notification form, e-mail, phone call)
- Notification sent to the Regional Health Inspectorate (RHI)
- RHI is responsible for uploading data in the Web based system for epidemiological surveillance of Measles, Mumps and Rubella in Bulgaria.

Prevention of measles

MMR vaccination

- MMR vaccination is mandatory in Bulgaria (for the recipients of the vaccine and for the vaccine providers)
- Planning (number of eligible children)
- Supplying vaccines from the RHI
- Storage of vaccines
- Performing vaccination of eligible children from the patient list
- Registration of the vaccination
- Submitting regular reports to the RHI and RHIF
- In the case of epidemic situation or substantial decline of the immunization coverage, participation in immunization campaigns and mobile teams for immunization (by order of the Minister of Health)



WEB BASED DATA COLLECTION AND DISSEMINATION SYSTEM FOR EPIDEMIOLOGICAL SURVEILLANCE OF MEASLES, MUMPS AND RUBELLA IN BULGARIA
NATIONAL CENTER OF INFECTIOUS AND PARASITIC DISEASES
MINISTRY OF HEALTH

Name:
 Password:

Disease operational analysis: -- Choose --

HOME

EPIDEMIOLOGICAL SUMMARY OF THE INCIDENCE OF MEASLES

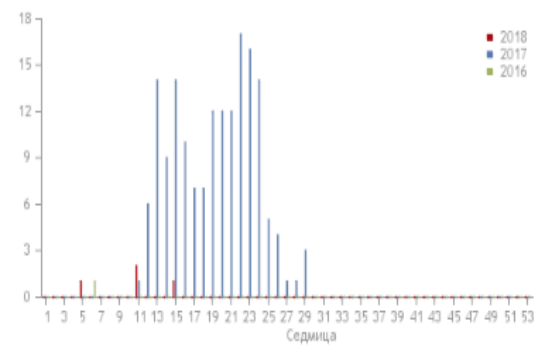
Epidemiological indicator

Weekly Epidemiological Bulletin – Measles (week 18)

Current analysis of the weekly information on reported measles cases in Bulgaria
 The weekly data on reported infectious diseases are preliminary and are subject to verification and correction at the end of each month and year. The data are to be used only for the purposes of operational surveillance.
 The number of reported measles cases during week No 18 of year 2018 is 0. The deviation from the previous week is (0).
 From the beginning of year the number of reported cases is 4. For the same period of the previous year the number of reported cases is 68. The deviation from the previous year is (-64).

[Tabular report by region](#)

Number of cases



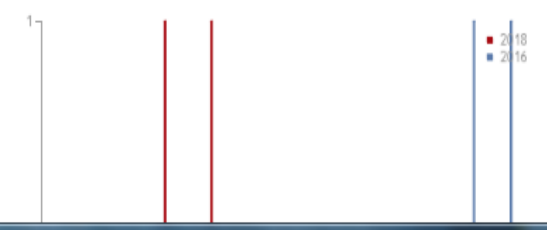
EPIDEMIOLOGICAL SUMMARY OF THE INCIDENCE OF RUBELLA

Epidemiological indicator

Weekly epidemiological bulletin – Rubella (week 18)

Current analysis of the weekly information on reported rubella cases in Bulgaria
 The weekly data on reported infectious diseases are preliminary and are subject to verification and correction at the end of each month and year. The data are to be used only for the purposes of operational surveillance.
 The number of reported rubella cases during week No 18 of year 2018 is 0. The deviation from the previous week is (0).
 From the beginning of year the number of reported cases is 1. For the same period of the previous year the number of reported cases is 0. The deviation from the previous

Number of cases



LEGAL FRAMEWORK FOR COMUNICABLE DISEASE SURVEILLANCE AND CONTROL IN BULGARIA

- **Health Act**, effective from 1 January 2005: **Section five**: Surveillance of the communicable diseases, **Articles 57, 58, 59, 60, 61, 62, 63, 63 a.**
 - ⇒ Regulation No 21/18 July 2005 of the MoH on the procedure for registration, notification and reporting of communicable diseases (State Gazette, No 62 of 29 July 2005)
 - ⇒ Regulation No 15/12 May 2005 of the MoH on Immunizations in Republic of Bulgaria
- **Health Insurance Act 1998**, effective from 1999-2000: mandatory health insurance system initiated
 - ⇒ National Health Insurance Fund (NHIF) regulated by the Health Insurance Act
 - ⇒ National Framework Contract negotiated and signed between the NHIF and the professional organizations of the medical doctors and of the dentists every year

According to the Health Insurance Act, the financial relations between NHIF and the HCPs are signed at two levels:

National – by signing a National Framework Contract with the professional organizations of physicians and dentists;

Individual – by signing individual contracts with HCPs

VACCINATION POLICIES & PRACTICES IN BULGARIA (1)

Bulgarian Immunization Program

In accordance with the Health Act, Bulgarian Immunization Program is under the responsibility of the Ministry of Health (MoH). The Immunization Program as a whole is to be organized and implemented under the corresponding specific Regulation approved by the Minister of Health (Article 58). The immunizations are as follows:

- Mandatory immunizations
- Immunizations indicated in specific conditions
- Recommended immunizations

Mandatory immunizations are those included in the National Immunization Calendar (a total of 11 diseases at present). Vaccines for **mandatory immunizations** are paid and purchased by the MoH. These immunizations (vaccine and application) are provided **free of charge** for the population. As a rule, most of the immunizations are administered in the private sector by the GPs.

Recommended immunizations (vaccine and application) are **paid by the patients**. The vaccines for the recommended immunizations are available and sold on the private market. These vaccines are offered and administered in the Immunization Centers and also by the GPs.

⇒ Two National Programmes for implementation of two Recommended immunizations: against HPV (2017 – 2020) and against Rotavirus infection (2017 – 2021). The vaccines and the application are paid by the MoH and are **free of charge** for the target age groups, but the immunization is voluntary and not mandatory.

IMMUNIZATION CALENDAR – BULGARIA, 2018

Immunization against (Vaccine)	Age	Months									Years					
	after birth	1	2	3	4	6	7	12	13	16	6	7	11	12	17	25+
Tuberculosis (BCG)	BCG ²						BCG ³					BCG ⁴	BCG ⁴			
Diphtheria Tetanus Pertussis (DTaP; Td)			DTaP	DTaP	DTaP					DTaP ⁸	DTaP			Td	Td	Td ⁹
Poliomyelitis (IPV)			IPV	IPV	IPV					IPV ⁸	IPV					
H.Influenzae B infections (Hib)			Hib	Hib	Hib					Hib ⁸						
Hepatitis type B (HBV)	HBV ¹	HBV ⁵	HBV ⁶	HBV ⁶	HBV ⁶	HBV ⁵										
Pneumococcal infections (Pn)			Pn	Pn	Pn			Pn ⁷								
Measles Mumps Rubella (MMR)									MMR					MMR		

¹ Within first 24 hours after birth

² After 48th hour after birth

³ Only for children without scar after first shot and Mantoux negative (using PPD)

⁴ Only for those Mantoux negative (using PPD)

⁵ For monovalent HBV vaccine

⁶ For combined vaccine, containing HBV vaccine

⁷ Not earlier than 6 months after the 3-rd dose

⁸ Not earlier than 1 year after the 3-rd dose

⁹ After 25 years every 10 years

VACCINATION POLICIES & PRACTICES IN BULGARIA (2)

- Health Insurance Act:
 - Compulsory health insurance system;
 - All children under 18 years of age are insured by the State and have a full access to medical care (including immunizations) irrespectively of the health insurance of the family.
- National Framework Contract:
 - General Practitioners act according to a defined package of activities, assigned by the National Framework Contract and are gate keepers for the outpatient care. Health promotion and health prophylaxis take an important place in their activities.
 - In accordance with the Annual contract with the NHIF, the GPs are responsible for supplying vaccines from the RHI and for planning, performing, registering and reporting of vaccinations.
 - Reimbursement of GPs for activities related to vaccinations:
 - 1) Per capita: 1.45 BGN/1 child 0-18 yrs old in the patient list
 - 2) For mandatory immunizations of 0-18 yrs old children: in 2018 a total of 654,648 children immunizations were contracted at the rate of 6.00 BGN (3.00 EUR) /1 immunization
 - 3) For recommended immunizations against HPV and against Rotavirus infection: amount of immunization not fixed in the contract, 1 immunization is contracted at the rate of 4.00 BGN (2.00 EUR).

ROLE OF HCP IN VACCINATION PRACTICES IN BULGARIA

From the point of view of Bulgarian patients:

- The most trusted source of information about vaccines are HCPs;
 - Vaccination should be compulsory
- ⇒ In one study¹ 76.7% from parents indicated the GP as the main trusted source of information about vaccines; 73.3% consider that vaccination must be compulsory, 19.2% are against. However, at the same time 50% of respondents indicated that they would not vaccinate their children if immunizations were not compulsory.
- ⇒ Data from Citizen consultation² conducted in Bulgaria in 2016 showed that according to 62.7% of the participants, the best way to give information during epidemics/pandemics is through one-way communication from the public health authorities. The results obtained by this survey indicate that the highest confidence people have of information received by their GP (76.1%), followed by the competent European and national health organizations (respectively 69.4% and 66.4%).
- ⇒ The results from the Citizen consultation³ showed that 64.2% of respondents support compulsory immunization of the general population with influenza vaccines in case of pandemic or epidemic and 80.6% consider that this vaccination must be compulsory for HCPs.

¹ Hadzhieva S et al. Study of parental attitudes to immunization among the population in Varna, Sliven and Shumen Regions. *Pediatrics*. No1, 2018, LVIII. 56-59 (In Bulgarian)

² Dimitrova V et al. Is social media a realistic information channel during epidemics and pandemics? Results from the citizen consultation conducted in Bulgaria. *Asset paper series: Epidemics and Pandemics: The response of Society*. Issue No. 4, July 2017, pp. 6-10. 2.

³ Dimitrova V et al. Results from the citizen consultation on epidemic and pandemic preparedness and response, conducted in Bulgaria. *Social medicine*, 2017 (1), 10-13 (In Bulgarian)

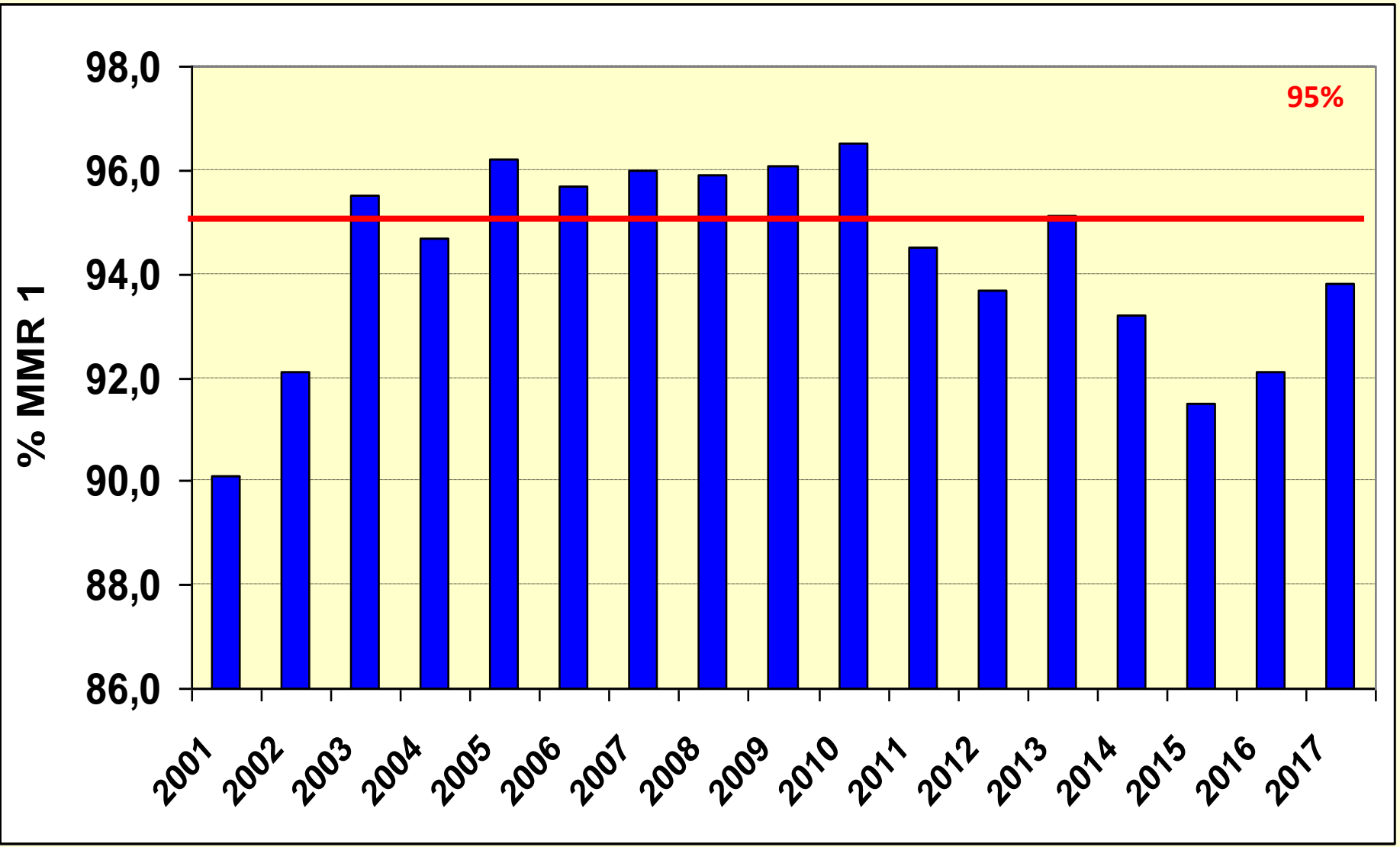
ROLE OF HCP IN VACCINATION PRACTICES IN BULGARIA

From the point of view of the Bulgarian HCP:

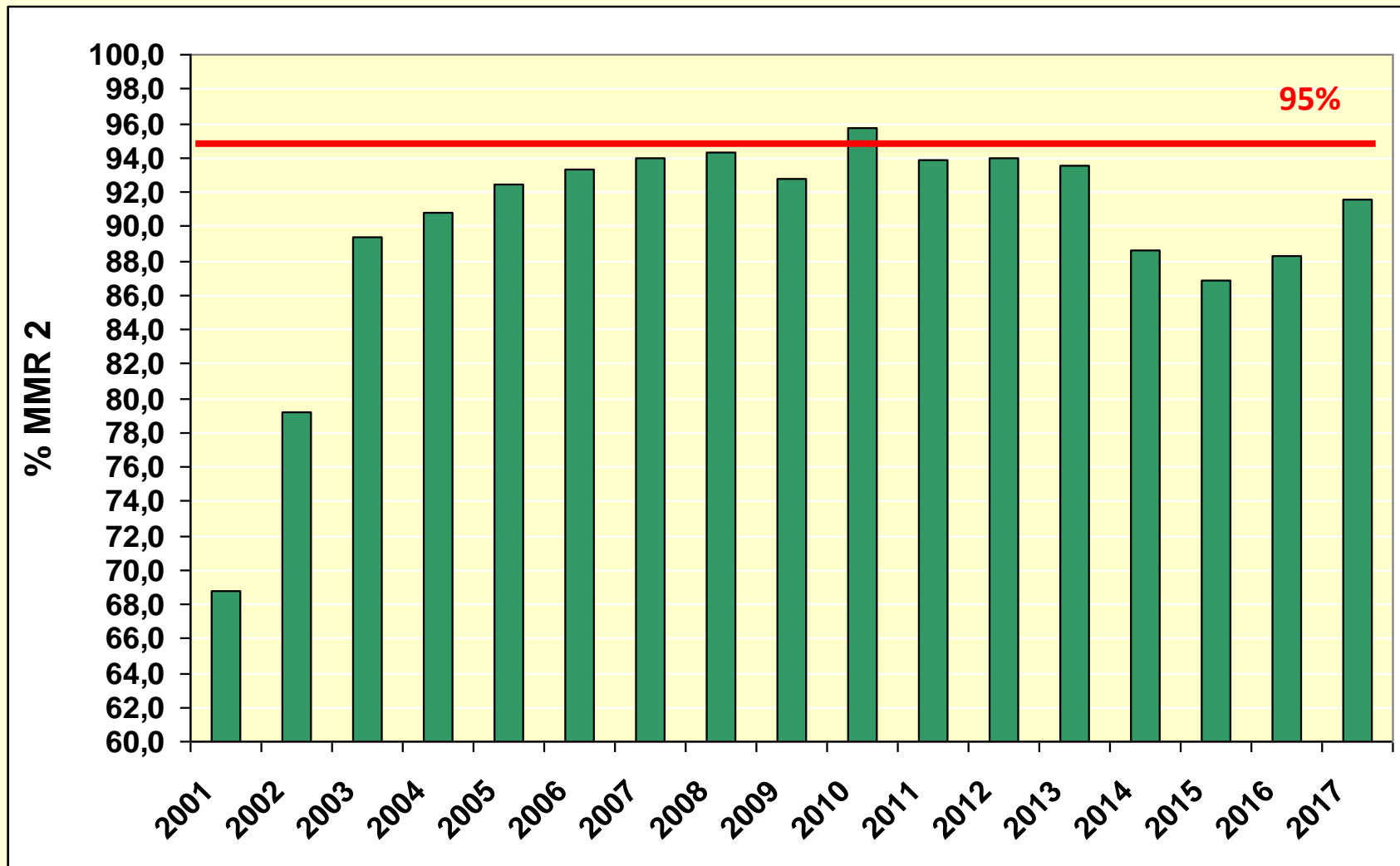
- Vaccination should be compulsory
 - The GPs do not perceive as their responsibility to recommend vaccines that are not compulsory.
 - "I carry out my obligations“, which means that following the rules and institutional pressure are much important for the HCP.
- ⇒ A study (semi-structured interviews with 32 GPs) of the attitudes of family doctors in Bulgaria towards influenza vaccines¹ shows that:
- Respondents are not well informed about influenza vaccine and its effectiveness.
 - The GPs do not perceive as their responsibility recommending and informing the patients of the benefits of the vaccines not included in the National immunization calendar.
 - Respondents categorically support compulsory immunization.
 - The recommended vaccines are used extremely rarely, while compulsory immunizations are implemented routinely.
 - The most recognizable recommended vaccines are HPV, Influenza and Rotavirus vaccines. However, HCP usually don't recommend these vaccines and only immunize patients who actively ask for vaccination.

¹ Dimitrova V et al. A study of the attitudes of family doctors in Bulgaria towards influenza vaccines, General Medicine, 19, 2017, No 3, 3-7 (In Bulgarian)

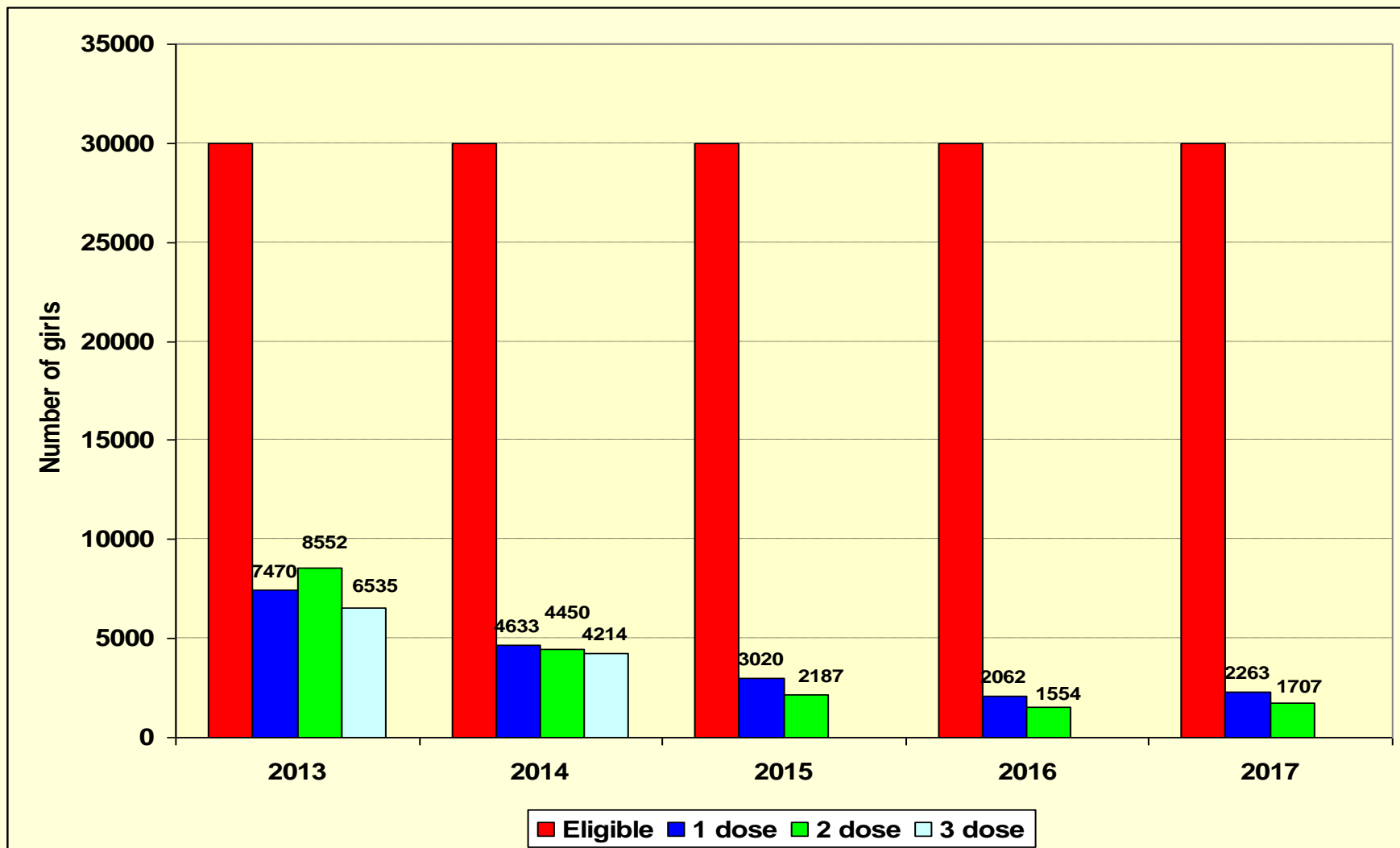
Immunization coverage with MMR 1 in Bulgaria, 2001-2017



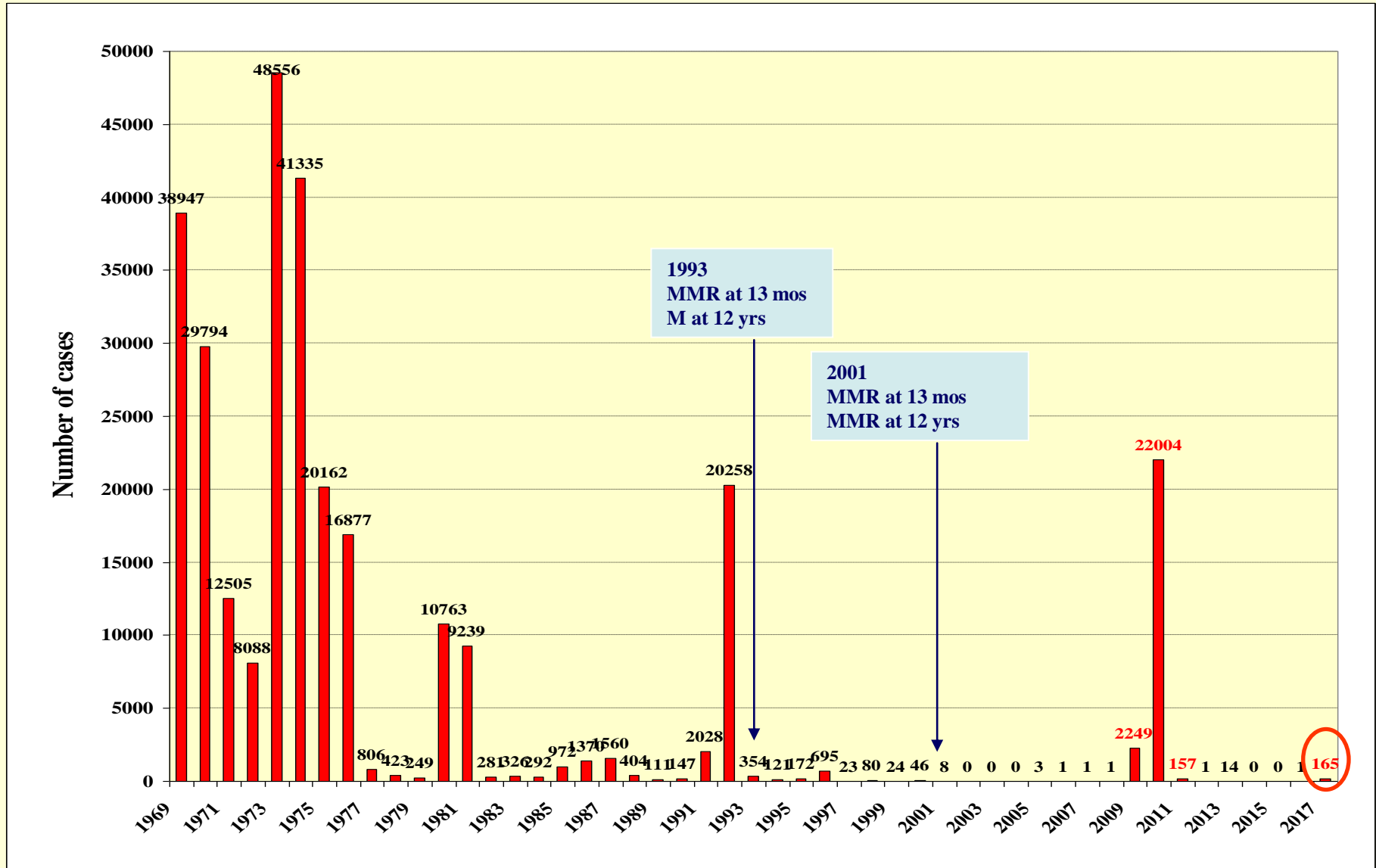
Immunization coverage with MMR 2 in Bulgaria, 2001-2017



Vaccine coverage with HPV vaccine of 12 yrs old girls in Bulgaria, 2013-2017



Number of measles cases in Bulgaria since the start of measles vaccination in 1969



Measles outbreak control measures and role of HCP

- The 2009-2011 measles outbreak affected mostly Roma population as a result of accumulation of a large susceptible population. Of the total, 21,821 (89.6%) cases were estimated to occur among Roma.¹
- Between April 2009 and December 2010, 188,700 MMR vaccine doses were administered free of charge through routine immunization system (GPs) and special outreach teams in collaboration with Roma health mediators, deployed to vaccinate Roma communities.
- The campaign started in the first-affected regions for persons of Roma ethnicity, 13 months to 30 years of age. In February 2010, the campaign was extended to a national level targeting persons aged 13 months to 20 years who had not received two MMR vaccine doses. From the end of March 2010, the vaccine was available on request to all persons aged 30 years and older who had not received two MMR doses. Healthcare workers were offered a dose of MMR, regardless of their immunization status or age.
- This outbreak has served to further develop national and local activities in collaboration between HCPs and Roma organizations with the aim of integrating better the Roma community into the healthcare system². Bulgaria was one of the first countries in the WHO EURO to test the Guide to Tailoring Immunization. Bulgaria participated in a European collaborative project “Let’s Talk About Protection”, aiming to communicate effectively and to address patients’ concerns on vaccine topics. A practical vaccination guide, adapted to the context in Bulgaria, was published and distributed for use by HCPs and Health mediators.

¹Muscat M, Marinova L, Mankertz A, Gatcheva N, Mihneva Z, Santibanez S, Kunchev A, Filipova R, Kojouharova M. The measles outbreak in Bulgaria, 2009–2011: An epidemiological assessment and lessons learnt. *Euro Surveill.* 2016;21(9):pii=30152

²Marinova L, Parmakova K, Kojouharova M. Striving for better communication with underserved communities in Bulgaria – A step towards improving immunisation coverage. In: *Problems of Infectious and Parasitic Diseases.* (42), 2. Sofia, National center of infectious and parasitic diseases; 2014. p. 35-8.