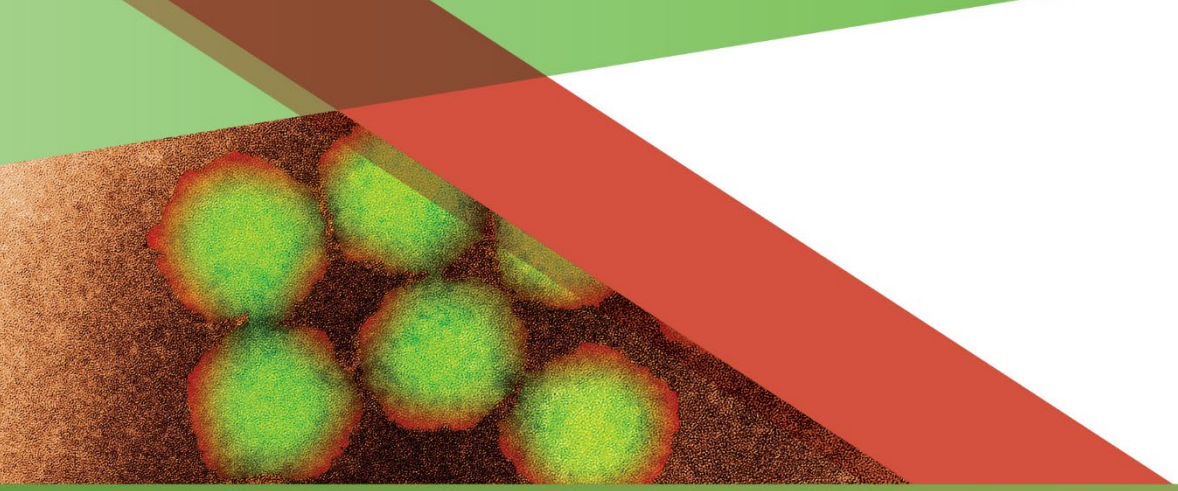

SURVEILLANCE REPORT

Poliomyelitis

Annual Epidemiological Report for 2017

Key facts

- The WHO European Region was declared polio-free in 2002. Neither wild-type nor vaccine-type viruses were notified in the WHO European Region in 2017, but the risk of importation and subsequent transmission remains high in certain countries.
- Inactivated poliovirus vaccines (IPV) are used in all EU/EEA countries. A fully immunised population is protected against disease that may be caused by both wild and vaccine-derived polioviruses.
- Imported wild-type and vaccine-type polioviruses still remain a threat to unvaccinated people in the EU/EEA. Maintaining high vaccination coverage in all population groups and continued acute flaccid paralysis (AFP) surveillance remain the most important tools for keeping Europe polio-free. If justified, supplementary environmental surveillance in specific populations may provide additional information.
- A polio public health emergency of international concern (PHEIC) was declared by the International Health Regulations (IHR) Emergency Committee in May 2014 and is reviewed at three-month intervals. Polio remained a PHEIC throughout 2017.

Methods

This report is based on data for 2017 retrieved from The European Surveillance System (TESSy) on 25 March 2019. TESSy is a system for the collection, analysis and dissemination of data on communicable diseases.

For a detailed description of methods used to produce this report, refer to the *Methods* chapter [1].

An overview of the national surveillance systems is available online [2].

Thirty EU/EEA Member States reported data on polio to ECDC for 2017 and 24 of them did so in accordance with the 2008 or 2012 EU case definitions [3]. All Member States reported data from comprehensive surveillance systems with national coverage.

Member States of the WHO European Region submit annual reports on the status of their national polio eradication programme to WHO [4]. The last update was in May 2018 [5]. The following risk factors for reintroduction and transmission after importation are assessed: health system, routine immunisation coverage, presence of high-risk groups or pockets of susceptible individuals, surveillance indicators and existence of a preparedness plan.

Suggested citation: European Centre for Disease Prevention and Control. Poliomyelitis. In: ECDC. Annual epidemiological report for 2017. Stockholm: ECDC; 2019.

Stockholm, May 2019

Epidemiology

For 2017, no cases of poliomyelitis were reported by any of the 30 EU/EEA countries.

Discussion

Europe has remained polio-free since 2002. The latest assessment by the European Regional Certification Commission for Poliomyelitis Eradication (RCC) concluded that there was no wild poliovirus transmission or circulation of vaccine-derived poliovirus in the WHO European Region in 2017. However, one EU/EEA country (Romania) and two countries bordering the EU/EEA (Ukraine and Bosnia and Herzegovina) remain at high risk of a sustained polio outbreak following wild poliovirus importation or emergence of circulating vaccine-derived polio virus due to suboptimal programme performance and low population immunity [5]. The RCC expressed concern around indications that vaccine coverage is declining in a small number of countries in the WHO European Region. The RCC urged all countries in the WHO European Region to complete laboratory surveys and inventories of all type 2 poliovirus materials. The RCC also expressed concern over the number of countries in the WHO European Region proposing to establish poliovirus essential facilities (PEFs) and urged them to carefully consider the requirements for establishing and maintaining PEFs.

Globally, in 2017, 22 wild poliovirus cases type 1 (WPV1) were reported from two countries: Afghanistan (14) and Pakistan (8). Naturally circulating WPV2 was declared globally eradicated in September 2015. No cases due to WPV3 have been detected since 10 November 2012 [5,6].

The number of AFP cases caused by cVDPV registered a considerable increase in 2017 (96 globally, all due to cVDPV2) due to outbreaks in the Democratic Republic of Congo (22) and in Syria (74) [7].

The global IPV supply constraint continued throughout 2017, necessitating careful management of global supplies [8].

The risk of reintroduction and establishment of the virus in Europe persists as long as there are non- or under-vaccinated groups in European countries and poliomyelitis is not eradicated [9]. Spread of polioviruses through faecal excretion from imported cases remains a potential threat. In order to avoid vaccine-associated paralytic polio and cVDPVs, the new endgame strategy for polio eradication includes sequential oral polio vaccine withdrawal, which started in 2016 with Sabin type 2 strains [8].

Public health implications

A polio PHEIC was declared by the IHR Emergency Committee in May 2014 and is reviewed at three-month intervals [5,10].

The risk of transmission following importation remains high in some countries because transmission after reintroduction may occur if vaccination coverage is not satisfactory (≤90% for three doses of either IPV or oral poliovirus vaccine) or if there are pockets of susceptible people. IPVs are used in all EU/EEA countries. Vaccination coverage levels in the EU/EEA can be considered satisfactory (>90% for three doses) with the exception of Romania, where population immunity is considered suboptimal [5]. Vigilance needs to remain high. Unvaccinated population pockets should be identified and immediate targeted actions should be taken to increase vaccination coverage in these populations (and potentially in the general population) in accordance with national and WHO guidelines. High immunisation coverage in all population groups is essential and will also provide herd immunity to still susceptible individuals [11].

Maintaining high vaccine coverage and continued clinical and, if indicated, environmental surveillance remain the most important tools for keeping Europe polio-free.

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