

Detection of imported wild poliovirus in environmental samples

21 June 2014

Upon detection of wild poliovirus type 1 (WPV1) in environmental samples from Brazil, the Pan American Health Organization (PAHO) / World Health Organization (WHO) recommends that Member States of the Region of the Americas continue to strengthen surveillance for cases of acute flaccid paralysis in order to rapidly detect any new instances of imported poliovirus and maintain high immunization coverage against polio.

Situation summary

On 18 June 2014, the Brazil International Health Regulations (IHR) National Focal Point (NFP) reported the detection of wild poliovirus type 1 (WPV1) in sewage samples collected in March 2014 at the International Airport of Viracopos located in Campinas, Sao Paulo. The WPV1 was detected in sewage only. The isolate was detected through routine environmental surveillance in Brazil that includes regular testing of sewage water from multiple sites. Brazil has been carrying out this routine surveillance for over 20 years. To date, there has been no reported suspected or confirmed case of paralytic polio in the country.

Genetic analysis of the WPV1 indicated a close match with a strain of polio recently isolated from a case of polio in Equatorial Guinea. The epidemiological investigation is ongoing.

Following detection of this isolate, the public health authorities in Brazil are strengthening surveillance of acute flaccid paralysis (AFP), engaging in an active search for AFP cases across the state of Sao Paulo. Brazil has conducted two national immunization campaigns per year, with oral polio vaccine from the 1980s until 2011. In 2012 and 2013 single vaccination campaigns were carried out. These campaigns have achieved vaccination coverage levels of over 95%, in the last 8 years. Routine vaccination coverage has been above 95%, in the municipality of Campinas, as well as the State of São Paulo.

PAHO/WHO assesses the **risk** of further international spread of this virus from Brazil as very **low** given that there is a high level of immunity in the population as evidenced by the high levels of routine immunization coverage and periodic vaccination campaigns in the area, no evidence of WPV1 transmission thus far, and the response actions being implemented.

The Americas Region has been free of wild poliovirus transmission since 1991 and the last case of polio in Brazil occurred in 1989.

Recommendations

PAHO / WHO reminds Member States of the need to achieve and maintain high quality surveillance for timely detection and response to imported wild poliovirus. Member States are

also reminded to achieve and maintain high vaccination coverage against polio in all municipalities. In this regard, Member States should analyze their coverage data systematically, to be able to identify any areas with low vaccination coverage and intensify surveillance and vaccination in those areas accordingly.

PAHO/WHO reiterates that the recommendations made by the Technical Advisory Group meeting in Quito, Ecuador, held from 3 to 5 July 2013, remain valid; they includes:

- All countries must reinforce activities aimed to achieve or maintain vaccination coverage >95% in every district or municipality. If countries do not achieve that coverage they must evaluate the accumulation of non-immunized and conduct vaccination campaigns.
- All countries must continue to maintain adequate AFP surveillance in order for timely detection of imported or the emergence of vaccine-derived polioviruses (VDPVs), and must report such to PAHO/WHO in a timely manner to allow the proper monitoring of the Regional situation.

Related Links

General Information on Polio

- [Basic Polio Facts](#)
- [Polio Case Definition](#)

Polio Publications

- [Polio Field Guide](#)
- [Polio Weekly Bulletin](#)
- [Polio Weekly Bulletin - PREVIOUS ISSUES](#)

References

1. Identificação de amostra de poliovírus em vigilância de esgoto sanitário no aeroporto de Viracopos. Posted at Brazil Ministry of Health website. Available at: <http://portalsaude.saude.gov.br/index.php/o-ministerio/principal/secretarias/svs/noticias-svs/13501-identificacao-de-amostra-de-poliovirus-em-vigilancia-de-esgoto-sanitario-no-aeroporto-de-viracopos>
2. Final report of the XXI Technical Advisory Group (TAG) Meeting on Vaccine-preventable Diseases of the Pan American Health Organization, held in Quito, Ecuador, 3-5 July 2013. Available at: http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=22423&Itemid=270&lang=en