

# Situation Report 2

## Polio Outbreak

# of samples confirmed	VDPV1	cVDPV2
Environmental	5	2
Human	0	2

30 September 2019

### Highlights

- On 19 September 2019, the Philippines Department of Health (DOH) declared a polio outbreak after 2 confirmed polio cases of vaccine-derived poliovirus type 2 (VDPV2). Environmental samples taken from Manila and Davao also tested positive for VDPV2, as well as for VDPV1.
- Because circulating VDPV2 (cVDPV2) is highly contagious and expected to spread rapidly among unvaccinated children, cVDPV2 response is being prioritized over response to VDPV1.
- DOH is planning 3 rounds of vaccination targeting under-five children in Mindanao with monovalent Oral Polio Vaccine (mOPV) for poliovirus type 2, scheduled for mid-October (Lanao del Sur and Davao del Sur including Marawi and Davao city), mid-November 2019 (All of Mindanao regions) and January 2020 (All of Mindanao regions). Sufficient quantities of mOPV2 are currently being sent from the global vaccine stockpile, by the Global Polio Eradication Initiative (GPEI).
- Enhanced routine immunization with bivalent Oral Polio Vaccine (bOPV) targeting poliovirus type 1 and 3, as well as inactivated poliovirus vaccine (IPV) targeting all 3 types of polio is ongoing<sup>1</sup>.
- DOH is planning a bOPV vaccination campaign in the National Capital Region (NCR) for children under 5.

### Current Situation

**VDPV2** The first case, of a 3-year-old girl from Lanao del Sur in the southern Philippines, was confirmed on 14 September following testing by the National Polio Laboratory at the Research Institute for Tropical Medicine (RITM), the Japan National Institute of Infectious Diseases (NIID) and the United States Centers for Disease Control and Prevention (CDC). The virus is genetically linked to VDPV2 previously isolated from environmental samples collected from waterway in Davao on 22 August 2019. Four isolates from sewage in Manila is positive for VDPV Type 2. Comparison done at NIID and CDC in poliovirus databases showed no genetic linkage with any other known type 2 poliovirus, indicating new emergence.

The second case, of a 5-year-old boy from Laguna, approximately 100km south-east of Metro Manila, was confirmed on 19 September. The case has been confirmed as VDPV type 2, and initial results show the case is an immune deficient child. This isolation is not genetically linked to other isolates from Davao and Manila. Investigations and further characterization of the virus are ongoing.

**VDPV1** five (5) environmental samples collected through routine and enhanced environmental surveillance conducted by RITM from a sewage pumping station in Manila on 1 and 22 July, 13 and 27 August, and 9 September 2019 tested positive for VDPV1 by the NIID. The NIID and CDC compared the viruses and confirmed that these 5 viruses are genetically linked but did not find a genetic linkage with any other known VDPV1 detected globally. This indicates new emergence.

On 19 September 2019, DOH declared a polio outbreak in the Philippines, outlining the below:

1. Step up Acute Flaccid Paralysis (AFP) and environmental surveillance to detect cases.
2. Field investigation into confirmed cases to define the geographic scope of the circulation of the virus and inform planning for outbreak response including mass immunization campaigns.
3. Draft response plan in close collaboration with WHO, UNICEF and GPEI
4. Prepare for mass immunization campaign with mOPV2
5. Strengthen routine immunization for children at 1 ½, 2 ½, and 3 ½ months with bOPV and IPV
6. Disseminate risk communication messages for broader population, health workers and partners
7. Arrange health cluster meeting with government, UN and NGO partners to coordinate the response

<sup>1</sup> Estimated coverage for children aged < 1 year for 2018 in the Philippines with 3 doses of bOPV was 66%;  
Estimated coverage for children aged < 1 year for 2018 in the Philippines with 1 dose of IPV was 41%.

## Response so far

### Risk assessment

Overall risk		
National	Regional	Global
High	Moderate	Low

For the past years the Western Pacific Regional Commission for Certification of Poliomyelitis Eradication (RCC) assessed the Philippines as high-risk for poliovirus transmission in case of importation or emergence and circulation of VDPV, mainly because of:

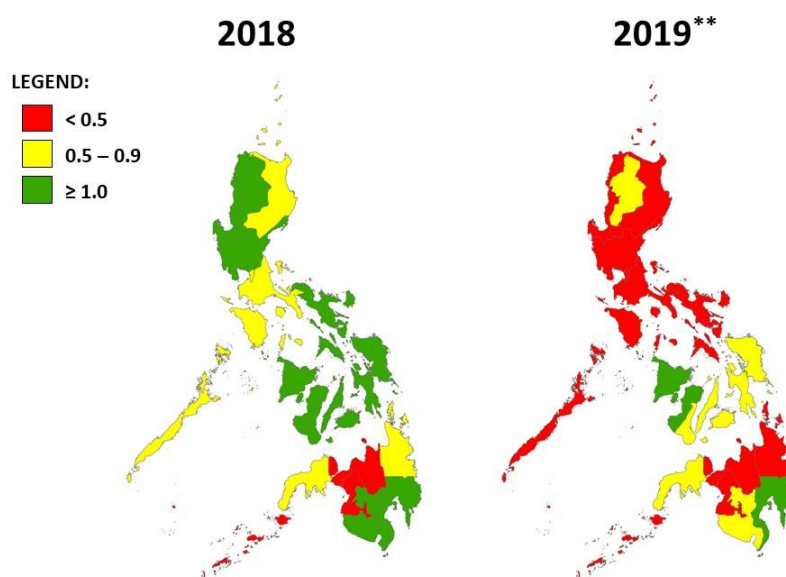
- chronically suboptimal immunisation coverage with polio vaccines,
- sub-optimal performance of AFP surveillance, and,
- poor sanitation and hygiene conditions.

The regional risk of potential spread across international borders is assessed to be moderate considering the large number of Overseas Filipino Workers (OFW). At global level, the risk is low.

### Surveillance and laboratory testing

The Non-Polio AFP (NPAFP) Rate is one of the indicators for quality AFP surveillance. AFP surveillance has been suboptimal in the Philippines in the past years (Figure 1). On 24 September, WHO recommended to increase the annualized NPAFP rate of  $\geq 3$  per 100,000 in infected provinces (Mindanao) and  $\geq 1$  per 100,000 in other areas.

**Figure 1: Non-Polio AFP Rate\* by Region**  
Philippines, 2018-2019\*\*



\* Per 100,000 population under 15 years

\*\* Data as of 30 August 2019

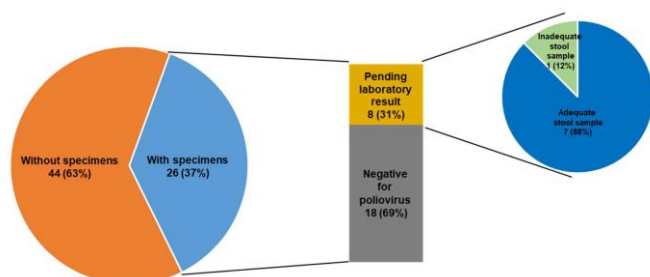
Enhanced surveillance measures taken at the national level include the finalization of guideline for intensified AFP surveillance, and training on AFP enhancement of regional surveillance and immunization program managers.

In NCR, training and orientation on AFP surveillance was conducted for hospital directors, paediatricians, neurologists, additional AFP surveillance officers were recruited, and active surveillance was intensified in hospitals with active case finding, medical records review from the past 6 months, community surveillance of AFP cases, and necessary stool sampling of healthy children under 5 in some communities.

Active AFP case finding was stepped up in NCR: between 1 August and 21 September, health workers visited 31,067 households in 121 barangays: none of the 35,315 children under the age of 15 that were seen, had any signs of AFP. Enhanced surveillance of 24 hospitals in NCR found 70 AFP cases reported between 1 January and 21 September 2019 (Figure 2 and 3)

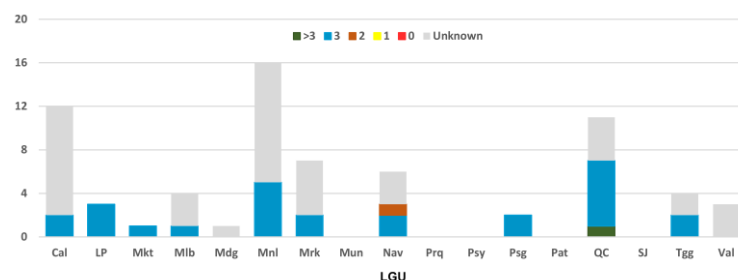
**Figure 2: Distribution of AFP Cases by Laboratory Status (N=70)**

*National Capital Region, 1 January-21 September 2019*



**Figure 3: Distribution of AFP Cases by LGU and Immunization Status (N=70)**

*National Capital Region, 1 January-21 September 2019*



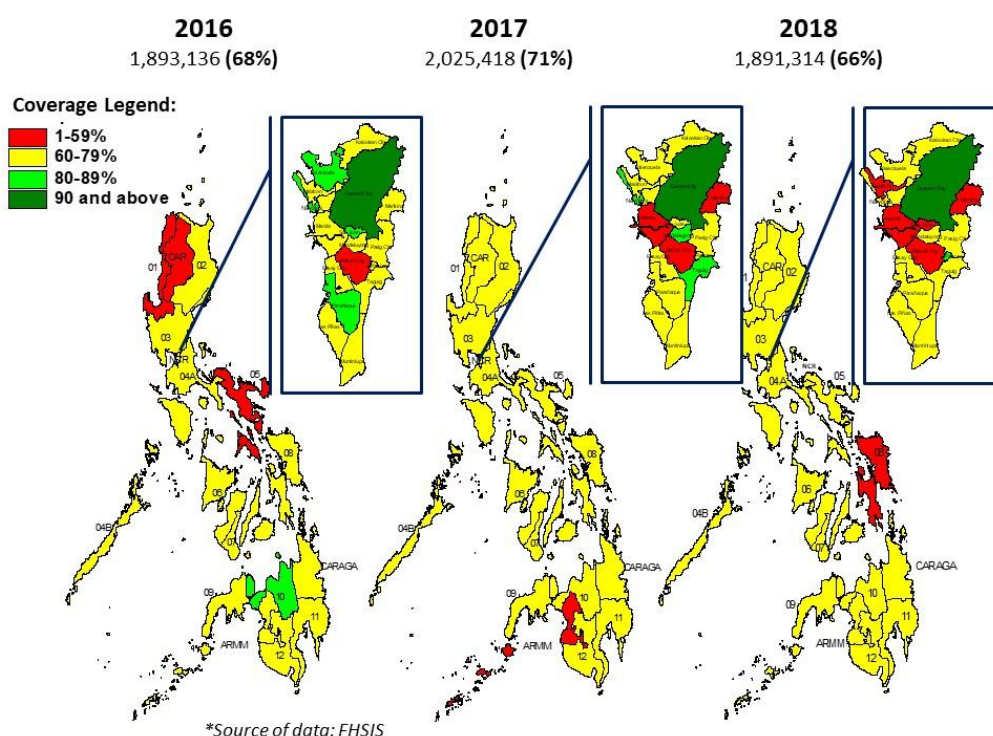
RITM increased the number of environmental sample collection sites (wastewater, sewage, or waterways) from 11 to 20.

## Immunization

Vaccination coverage in the Philippines has been steadily declining over the past few years (Figure 4). Estimated polio vaccination coverage for children aged < 1 year with the required 3 doses of bOPV for 2018 was 66% (compared to the recommended 95%).

For IPV, coverage has been below 50% since its introduction in 2016 and is at 23% for 2019.

**Figure 4: bOPV3 coverage**  
*Philippines, 2016-2018*



In response to the first confirmed VDPV1 samples, a synchronized vaccination campaign was organized on 19 to 31 August in Manila, reaching 53.8% of all targeted children 0-59 months with bOPV.

**Table 2: Polio vaccination coverage in the Philippines**

Name	How	Polio	Doses	Months	Coverage
bOPV	Oral	1, 3	3	1½, 2½, 3½	66%
IPV	Injectable	1, 2, 3	1	3½	41%

In response to the confirmed cVDPV2 samples, a vaccination campaign with monovalent OPV for poliovirus type 2 (mOPV2) needs to be urgently conducted targeting under-five children in most affected areas. The first round will be conducted in Lanao del Sur and Davao mid-October, whereas the 2<sup>nd</sup> and 3<sup>rd</sup> round will be conducted throughout Mindanao mid-November 2019 and January 2020.

As mOPV2 is currently not available in the Philippines, WHO/UNICEF will be sending sufficient quantities of the vaccine from the global vaccine stockpile by the GPEI.

Orientation on Synchronized Polio Vaccination and Microplanning Workshop for NCR will be conducted as follows:

Batch 1: Caloocan, Malabon, Navotas, Valenzuela, Pasig, Pateros, Marikina, Taguig and Quezon City

Batch 2: Makati, Mandaluyong, Manila, San Juan, Las Pinas, Muntinlupa, Paranaque and Pasay

## Coordination

Experts from GPEI, UNICEF and WHO are working closely together with DOH in developing the response plan for the 2 different polio events. (To be shared soon)

DOH organized a meeting for partners on Thursday 26 September to coordinate the response, as well as a health cluster meeting for government agencies on Friday 7 September 2019. (Meeting minutes will be shared soon)

## Monitoring

Field investigations were conducted into the confirmed polio cases in Lanao del Sur and Laguna.

A joint DOH-UNICEF-WHO outbreak investigation team visited Lanao del Sur on 19-20 September 2019. Case investigation was conducted as well as contact tracing and collection of stool specimens from all members of the household below 15 years old.

Community investigation including house to house survey of 20 houses ruled out further circulation of VDPV while looking at immunization status of children under 5.

All relevant health facilities were visited, to determine OPV vaccination coverage as well as possible unreported AFP cases through records review and active case finding. Cold chain and OPV stocks were checked.



## Risk communication

DOH approved risk communication messages for different audiences are made available at:

- <https://poliofreeph.wixsite.com/poliofreeph>  
with password: AdiosPolio.

Other relevant information can be found here:

- Disease outbreak news Polio outbreak, The Philippines 24 September 2019  
<https://www.who.int/csr/don/24-september-2019-polio-outbreak-the-philippines/en/>
- <https://www.doh.gov.ph/node/18012>
- <https://www.who.int/philippines/news/detail/19-09-2019-who-unicef-and-partners-support-philippine-department-of-health-s-polio-outbreak-response>
- <https://www.who.int/news-room/q-a-detail/questions-and-answers-on-the-polio-outbreak-in-the-philippines>
- <https://www.who.int/westernpacific/emergencies/polio-outbreak-in-the-philippines>

## Response plan

- Global polio advisory group recommended to prioritize polio type 2 response, while strengthening routine immunization for polio type 1. DOH will conduct bOPV vaccination campaign in NCR.
- DOH with support from UNICEF and WHO currently planning a mOPV2 vaccination campaign targeting under-five children in most affected areas. The first round will be conducted in Lanao del Sur and Davao mid-October, whereas the 2<sup>nd</sup> and 3<sup>rd</sup> round will be conducted throughout Mindanao mid-November 2019 and January 2020.
- Development and dissemination of appropriate risk communication messages
- Further case investigation & case finding: community search for AFP cases and close contact sampling
- Enhance AFP and environmental surveillance by review of charts in all hospitals and health centres and supporting community search and adding more environmental surveillance sites in Metro Manila
- WHO/UNICEF preparing shipment of sufficient doses of mOPV2
- UNICEF supporting DOH with procurement of all required vaccine supplies for the campaigns