

# Situation Report 3

## Polio Outbreak

8 October 2019

# of samples confirmed	cVDPV1	cVDPV2
Environmental	5	2
Human	0	2

### 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 tested positive for both VDPV2 (2), as well as for VDPV1 (5).
- Circulating VDPV2 (**cVDPV2**) is highly contagious and expected to spread rapidly due to low level of population immunity against poliovirus type 2. cVDPV2 is considered a public health emergency.
- DOH is planning 3 vaccination rounds targeting 6,650,308 under-five children with monovalent Oral Polio Vaccine against poliovirus type 2 (mOPV2) in affected areas.
- Sufficient quantities of mOPV2 for the 1<sup>st</sup> round arrived in Mindanao on 8 October 2019, sent from the global vaccine stockpile, by the Global Polio Eradication Initiative (GPEI). GPEI also mobilised 14 international consultants, who will work closely together with DOH and health partners in Marawi, Iligan, Davao, and Manila to support surveillance, monitoring and immunization efforts.
- Circulating VDPV1 (**cVDPV1**) results from persistently low routine immunization coverage.
- DOH is planning 2 vaccination rounds targeting 2,553,262 under-five children with bivalent Oral Polio Vaccine (bOPV) in the National Capital Region (NCR). Enhanced routine immunization with 3 doses of bOPV as well as inactivated poliovirus vaccine (IPV) nationwide is ongoing<sup>1</sup>.

### WHO RECOMMENDS:

All residents and long-term visitors to receive a dose of inactivated poliovirus vaccine (IPV) which protects against all 3 polio types

### Current Situation

#### cVDPV2

Two environmental samples from Manila and Davao tested positive for VDPV2 on 3 and 9 September respectively, followed by 2 human cases from Lanao del Sur and Laguna on 14 and 19 September.

All positive samples were tested by the National Polio Laboratory at the Research Institute for Tropical Medicine (RITM), Philippines, whereas sequencing and genetic analysis were done at the Global Specialized Laboratory National Institute of Infectious Diseases (NIID) in Japan and additional genetic characterization provided by the United States Centers for Disease Control and Prevention (CDC). All VDPV2 samples, with the exception from the Laguna AFP case, were genetically linked. Comparison done at NIID and CDC in poliovirus databases showed the AFP case from Laguna is not genetically linked with any other known type 2 poliovirus, indicating new emergence.

This series of events led to the declaration of a polio outbreak by DOH on 19 September 2019, recommended by the Emergency Committee under the International Health Regulations (2005) (IHR) regarding the international spread of poliovirus which convened on 16 September 2019.

Based on the global advisory group's recommendation, DOH is planning 3 rounds of vaccination targeting 6,650,308 under-five children with mOPV2 going house-to-house, as well as through fixed posts in health facilities, and public places like bus stations, airports, schools, churches, malls, etc.

**Table 1: Outbreak Response Immunization for cVDPV2**

When	Where	Who	#
14-27 Oct 2019	Davao City, Davao del Sur, Lanao del Sur	<5 years	427,008
25 Nov-7 Dec 2019	Mindanao (Region 9, 10, 11, 12, CARAGA and BARMM)		3,111,650
6-18 Jan 2020			3,111,650

<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%.

**cVDPV1**

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 confirmed all samples were genetically linked but did not find a genetic linkage with any other known VDPV1 detected globally. This indicates new emergence.

**Table 2: Outbreak Response Immunization for cVDPV1**

When	Where	Who	#
14-27 Oct 2019	NCR	<5	1,276,631
25 Nov-7 Dec 2019		years	1,276,631

DOH is planning 2 rounds of vaccination targeting 2,553,262 under-five children with bOPV in NCR. At the same time, efforts are ongoing to strengthen routine immunization with 3 doses of bOPV and 1 dose of IPV nationwide.

**Response**

The main objectives of the response are to:

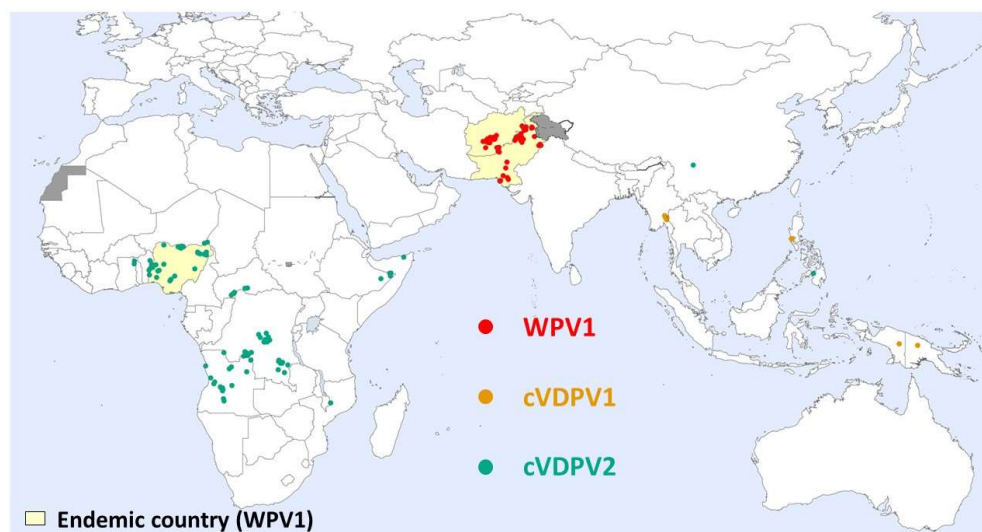
1. Interrupt current circulation and prevent new emergence of
  - a. **VDPV2** by achieving mOPV2 vaccination coverage of at least 95% in under-five children in outbreak-affected areas (i.e. regions within Mindanao)
  - b. **VDPV1** by achieving bOPV vaccination coverage of at least 95% in under-five children in outbreak-affected areas (i.e. NCR)
2. To enhance AFP surveillance, especially in high risk areas
3. To explore the expansion of environmental surveillance

**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, 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. With outbreaks of Wild poliovirus (WPV) and cVDPV reported globally (see Figure 1), the IHR Emergency Committee unanimously agrees that the risk of international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC).

**Figure 1: global WPV and cVDPV cases in the previous 12 months, as of 1 October 2019**

## Coordination

Mayors and interagency polio response meetings were conducted in NCR on 3 October, Davao Del Sur on 4 October, and Davao City on 7 October. DOH organized a partners' meeting on 26 September, and a health cluster<sup>1</sup> meeting on 27 September 2019. Health cluster members committed support with awareness raising and promotion of accurate information, advocacy with political leaders and decision-makers, and with vaccination, especially in hard-to-reach areas.



A total of 8 international consultants mobilized by the GPEI arrived in Manila on 2 October, to support surveillance, monitoring and immunization efforts in Region 11, BARMM and NCR. An additional 6 consultants from GPEI are due to arrive this week.

WHO and UNICEF are closely coordinating the response with DOH at all levels.

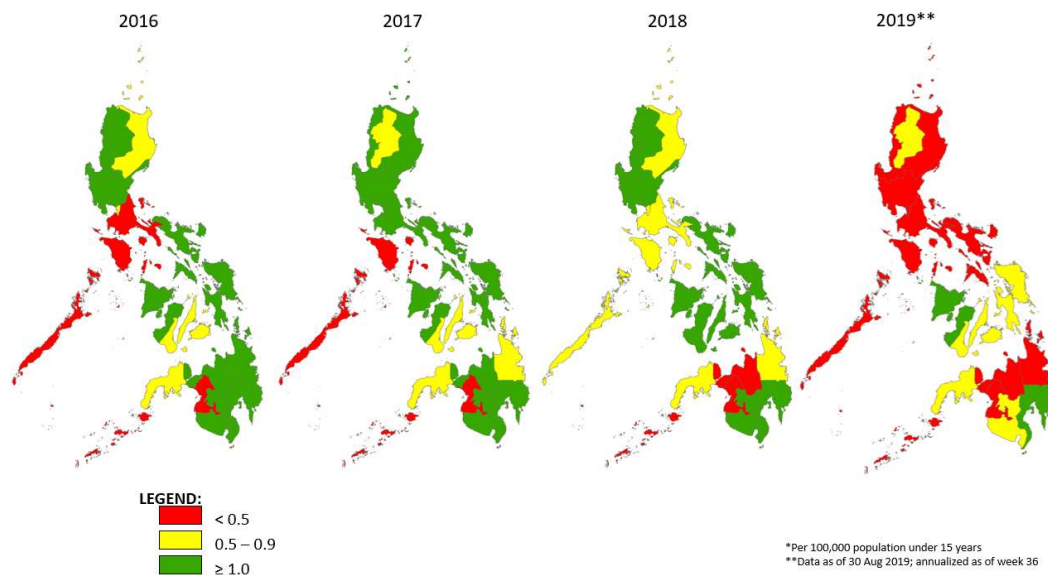
## Surveillance

In-depth investigation into the 2 human cases, including active contact tracing of household and community members conducted by DOH, with support from WHO and UNICEF, did not find any additional cases. However, both cases were attributed to poor vaccination coverage and poor sanitation, with the case from Laguna determined as immunocompromised.

DOH recruited 11 additional surveillance officers for NCR to strengthen AFP surveillance in hospitals. Orientation was held on new guidelines for enhanced AFP surveillance issued by DOH on 15 August 2019 for all hospital directors, paediatrics, neurologist and hospital-based and regional surveillance officers, as well as EPI managers in NCR. Retrospective medical records reviews, active surveillance visits to hospitals, and house-to-house searches for AFP cases was conducted.

AFP surveillance measured by the Non-polio AFP (NPAFP) Rate has been suboptimal in the Philippines in the past years (Figure 2). On 24 September, WHO recommended to increase the annualized NPAFP rate of  $\geq 3$  per 100,000 among  $< 15$  in Mindanao and  $\geq 1$  per 100,000 in other areas.

**Figure 2: Non-polio AFP Rate\* by Region**  
Philippines, 2016-2019\*\*

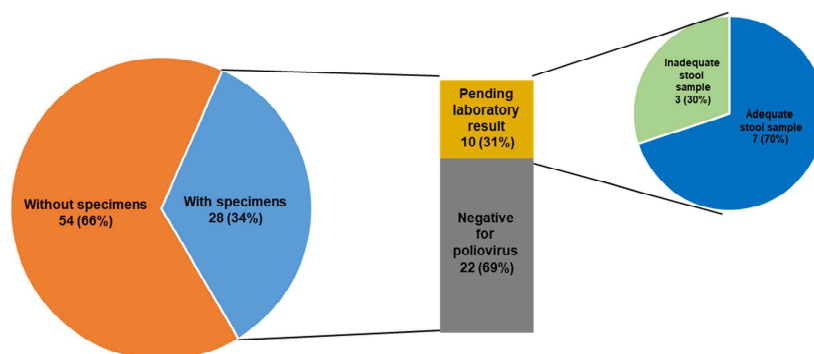


<sup>1</sup> DILG (Department of Interior and Local Government), DepEd (Department of Education), OCD (Office of Civil Defence), PNP (Philippine National Police), AFP (Armed Forces of the Philippines), PIA (Philippine Information Agency), PRC (Philippine Red Cross), PDRF (Philippine Disaster Resilience Foundation), OCHA (United Nations Office for the Coordination of Humanitarian Affairs)

In NCR, health workers visited 61,618 households in 235 barangays between 1 August and 5 October 2019: none of the 59,143 children under the age of 15 that were seen, had any signs of AFP. Enhanced surveillance of 33 hospitals in NCR found 92 AFP cases reported between 1 January and 5 October 2019, with most cases originating from Tondo Medical Center (Figure 3)

**Figure 3: Distribution of AFP Cases by Laboratory Status (n=92)**

*NCR, 1 January-5 October 2019*



RITM increased the number of environmental sample collection sites (wastewater, sewage, or water-ways) from 11 to 20 and increased the frequency of collection from monthly to bi-weekly in Manila and Davao City.

## Immunization

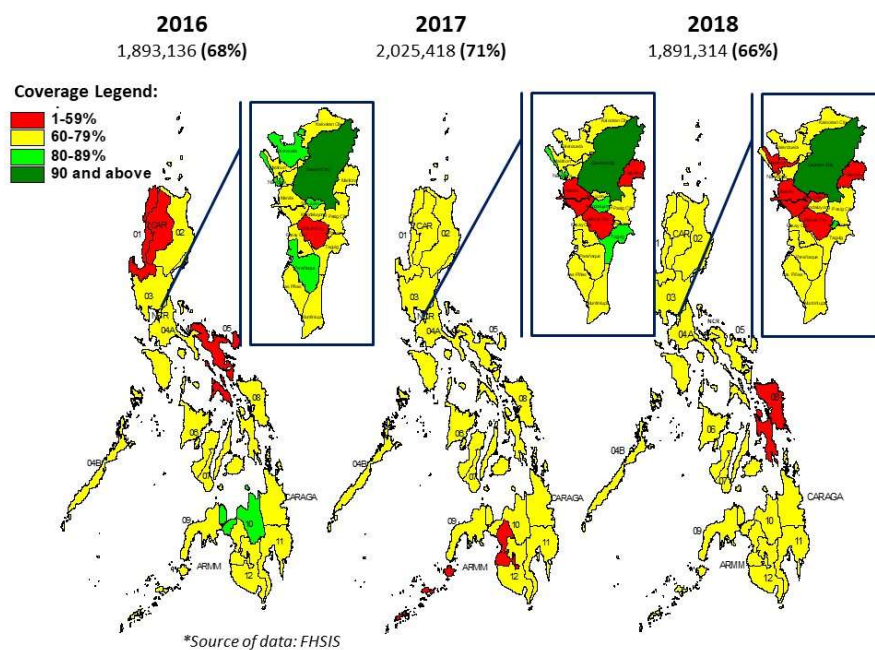
Vaccination coverage in the Philippines has been steadily declining over the past few years (Figure 4 and Table 3). Estimated polio vaccination coverage for children aged < 1 year with the required 3 doses of bOPV for 2018 was 66% (far below the recommended 95%).

**Table 3: 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%

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.

Simultaneous vaccination campaigns for mOPV2 in affected areas of Mindanao and bOPV in NCR will be conducted targeting under-five children.

**Table 4: Outbreak Response Immunization for cVDPV1 and 2**

When	What	Where	Who	#
14-27 Oct 2019	cVDPV2	Davao City, Davao del Sur, Lanao del Sur including Marawi City	<5 years	427,008
	cVDPV1	NCR		1,276,631
25 Nov-7 Dec 2019	cVDPV2	Mindanao (all 6 regions)		3,111,650
	cVDPV1	NCR		1,276,631
6-18 Jan 2020	cVDPV2	Mindanao (all 6 regions)		3,111,650

The first batch of mOPV2 vaccines for the first round of vaccination, arrived in Davao (Mindanao) on 8 October, sent from the global vaccine stockpile by the GPEI. Vaccination campaigns will be set up as follows:

Campaign Day	Main Activity	Remarks
Day 1-5	Intensive and simultaneous vaccination in all barangays	<ul style="list-style-type: none"> <li>- With intra-campaign monitoring and supportive supervision</li> <li>- Strict tracking and recording of missed children</li> <li>- Including weekends and holidays</li> </ul>
Day 6-7	Follow-up and mop up based on recorded missed children	<ul style="list-style-type: none"> <li>- Including weekends and holidays</li> </ul>
Day 8-14	Follow up and mop-up based on RCA findings of missed children	<ul style="list-style-type: none"> <li>- Follow-up and mop up after RCA</li> <li>- Including weekends and holidays</li> </ul>

The immunization service delivery strategy shall include a mixed combination of:

1. Door to Door (D2D) as a primary vaccination strategy
2. Fixed Post Sites (FP)
  - permanent health facilities (hospitals, rural health units or barangay health stations)
3. Special Vaccination (SV) Sessions (mobile, transit, and outreach vaccinations teams)
  - transport hubs (bus stations, seaports and airports)
  - areas where a lot of people congregate (shops, markets, churches, malls, playgrounds)
  - social service institutions where children are housed (day care centers, orphanages)
  - open spaces where families with eligible children may be living (cemeteries, under the bridge, parks)
  - highly mobile groups like street children, nomadic populations
  - affluent populations like in condominiums, gated communities, apartments or townhouses

WHO and UNICEF are supporting DOH central, Region 11 and BARMM to conduct 4 batches of orientation workshops from 30 September through 4 October, engaging provincial and city health offices and health centre staff, to plan and prepare for the October round with mOPV2.



## Partners' engagement

### PRC

- Conducted technical training on polio & response planning on 3 October 2019 for health volunteers from affected areas, specifically in the vaccination campaign, as well as academic and other partners.
- Activated volunteers for health information dissemination and health campaigns.

### International Federation of Red Cross and Red Crescent Societies (IFRC)

- Released CHF 336,302 from its emergency relief fund to support PRC

### Action Against Hunger

- Hygiene promotion focusing hand hygiene using soap and water, water quality, household water treatment, and use of toilets to stop disease transmission in Marawi, Lanao del Sur and Zamboanga

### CSFI

- Social mobilization in Lanao del Sur

### UNICEF

- Security access review for 40 municipalities in Lanao del Sur for polio response.



## Risk communication

DOH approved risk communication messages for different audiences available at <https://poliofreeph.wixsite.com/poliofreeph> with password: AdiosPolio:

- Polio Outbreak Communication Response Plan (17 September 2019)
- Microplanning Tool (18 September 2019)
- Messaging Grid for the Public (1 October 2019)
- Visibility/Out-of-Home Materials
- Social Media Cards Set
- Health Workers' Conversation Guide
- Media Releases, Print Ads, and Branding Elements

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>