

Circulating Vaccine-Derived Poliovirus Type 2 outbreak in Indonesia

Situation report no.17 – 8 January 2024
(Central and East Java)



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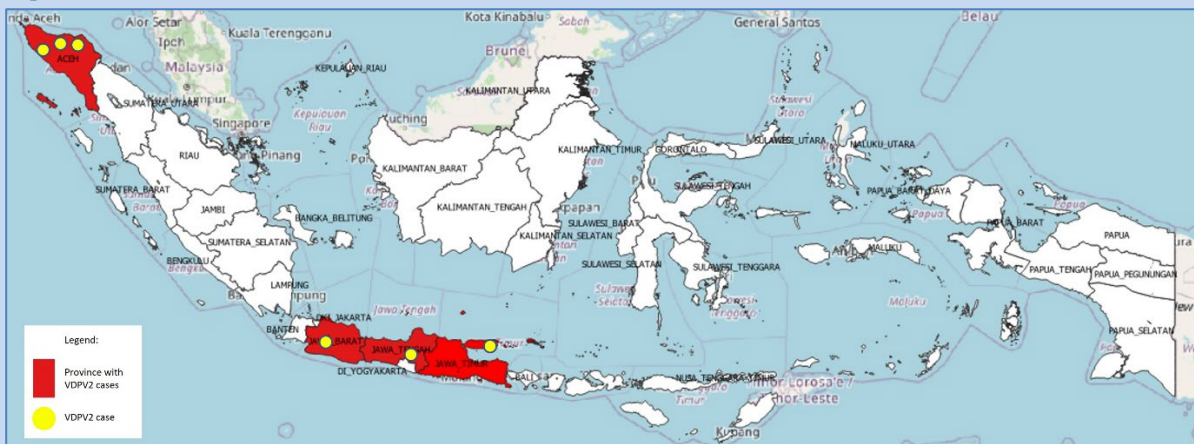


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Confirmation of new cVDPV2 cases



3 cases of acute
flaccid paralysis
(AFP) with cVDPV2

9 cases of healthy
children with
cVDPV2

2 grade of the
outbreak



Outbreak response in Central and East Java, and DI Yogyakarta



Target: 8.4 million

All children 0-7 years old
Vaccine type: nOPV2



Vials received:

104 730 in PHO East Java

92 130 in PHO Central Java

3 540 in Sleman, Yogyakarta

400 784 are underway

Coordination and planning

In late 2023 and early 2024, the Ministry of Health (MoH) coordinated a comprehensive outbreak response plan for polio, involving multiple high-level meetings with key stakeholders such as WHO, UNICEF, CDC, and various national health committees. Discussions ranged from acute flaccid paralysis (AFP) case sequencing results to risk assessments and readiness for nOPV2. DHO Klaten established an outbreak post (post KLB) for coordination, enhancing AFP surveillance, and advocating for government support. These efforts culminated in official outbreak declarations and development of public engagement materials.

Surveillance

MoH, WHO, and DHO initiated a surveillance response to VDPV2 cases in Central and East Java. This included a briefing with health offices and field epidemiology training programmes, followed by an investigation in Klaten and Pamekasan. A house-to-house surveys were conducted to identify additional AFP cases, assess immunization coverage, and sample children to monitor VDPV2. spread.

Social behavior change (SBC) communication

Various efforts have been made to enhance vaccine acceptance, including online training series on intrapersonal communication, WhatsApp learning support, training modules development, a learning repository, and development of information education communications (IEC) materials. All materials are accessible on [the polio repository](#).

Logistic & vaccine management

Mobilized remaining nOPV2 vaccines from previous outbreak, 13 863 vials, and procured new vaccines from WHO HQ, 400 784 vials. Moreover, orientation session will be conducted for immunization and pharmacy staff on vaccine management at district offices and puskesmas.

Supplementary immunization activity (SIA)

MoH issued an official letter to encourage the governors of East Java, Central Java, and Yogyakarta to implement polio supplementary immunization activities (SIA) for children of 0-7 years old. Moreover, a [virtual orientation](#) was conducted to prepare SIA.

Key issues

- The outbreak statement has not yet been issued by East Java Province and Central Java Province.
- There is a lack of public awareness on vaccines leading to high vaccine hesitancy.
- The upcoming Presidential election on 14 February 2024 may have a potential impact on execution of the first SIA round and the preparation for second SIA round.

Next steps

- PHO accelerate outbreak response processes by ensuring the outbreak statement.
- The 1st round of SIA implementation occurs on 15 January 2024, with an additional week for sweeping.
- District-level nOPV2 vaccine delivery continues 14 January 2024
- Vaccine hesitancy will be addressed by targeted communication and social mobilization efforts.



Preparing stool specimen collection from children in East Java (left) and specimen shipment to laboratory in Central Java (middle). FETP UGM conducted house-to-house survey (right). Credit: PHO East Java (left), DHO Klaten (middle), FETP UGM (right)

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Overall Summary of all cases:

Total number of AFP cases with cVDPV2: 7

- Aceh province: 1 case with paralysis each in Pidie, North Aceh, and Bireun districts
- West Java province: 1 case with paralysis in Purwakarta district
- Central Java: 1 case with paralysis in Klaten district
- East Java: 1 case with paralysis in Pamekasan and Sampang districts
- AFP surveillance and routine immunization strengthening measures are being implemented to bolster the capacity to identify poliovirus and enhance immunity against it.

Summary: Central and East Java

Outbreak confirmation:

- Total number of AFP cases with cVDPV2: 3
- Total number of healthy children with cVDPV2: 9
- Outbreak grade: 2

Infected Provinces and Districts:

- Central Java: 1 case with paralysis in Klaten district
- East Java: 1 case with paralysis in Pamekasan and Sampang districts

Index case:

- Source: AFP case in Klaten district, Central Java. The case had a travel history to Sampang district, East Java.
- Location: Tanjungsari village, Manisrenggo sub-district.
- Onset of paralysis: 20 November 2023
- Sex: Female
- Age: 6 years old
- Vaccination status: 2 dose OPV

Most recent case (by date of onset):

- Source: AFP case in Sampang district, East Java province
- Location: Madupat village, Camplong Subdistrict
- Onset of paralysis: 6 December 2023
- Sex: Male
- Age: 3 years old
- Vaccination status: 4 dose OPV

Environmental surveillance:

VDPV2 positive from Saksak river, Bangkalan district, East Java

Outbreak Response:

- East Java and Central Java Provinces: All children 0 to 7 years
- Sleman district, Yogyakarta Province: All children 0 to 7 years
- Target: 8.4 million children
- Vaccine type: nOPV2

Distribution of cVDPV2 cases in Indonesia 2022 - 2024

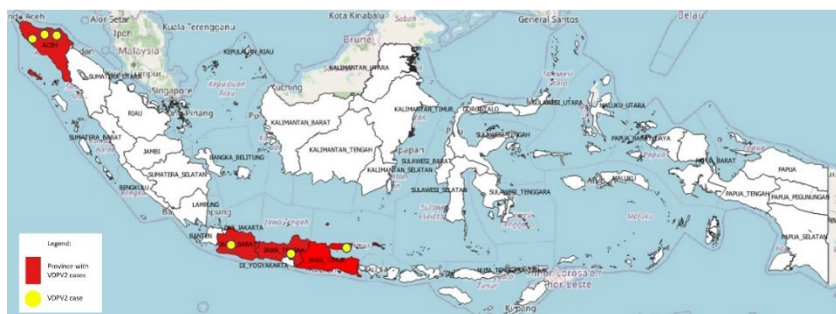


Figure 1. Location of cVDPV2 in Indonesia

Key highlights

- On 20 December 2023, the MOH notified WHO of first cVDPV2 case in Central Java province.
- On 4 January 2024, the Government of Indonesia confirmed three new cases of cVDPV2 in Central and East Java, with paralysis onset in November and December 2023. In response, rapid field investigations, house-to-house surveys, hospital record reviews, advocacy, coordination, and polio SIA orientation have been conducted.
- On 27 December 2023, the MoH issued letter number IM.03.02/C/4967/2023 regarding the polio outbreak response in Pamekasan District and Bangkalan District in East Java Province and letter number IM.03.02/C/4954/2023 in Klaten District, Central Java Province.
- As part of the response, a full investigation was conducted to determine the poliovirus transmission and the MoH, on 29 December 2023, issued letter number IM.02.03/Menkes/1051/2023 regarding polio SIA implementation for children 0-7 years in East Java, Central Java and Sleman district, Yogyakarta provinces that starts on 15 January 2024 for the 1st round.
- MoH, provincial health offices (PHOs), UNICEF and WHO conducted advocacy, communication, socialization, and orientation sessions on managing the polio outbreak. These sessions were targeted towards health workers, stakeholders across programmes, and the community.
- On 8 January 2024, Central Java and East Java received nOPV2 vaccine and logistic, respectively 92 130 vials and 104 730 vials. All of these vaccines have been distributed to districts. Following this, Sleman district received 3 540 vials.

Situation Update

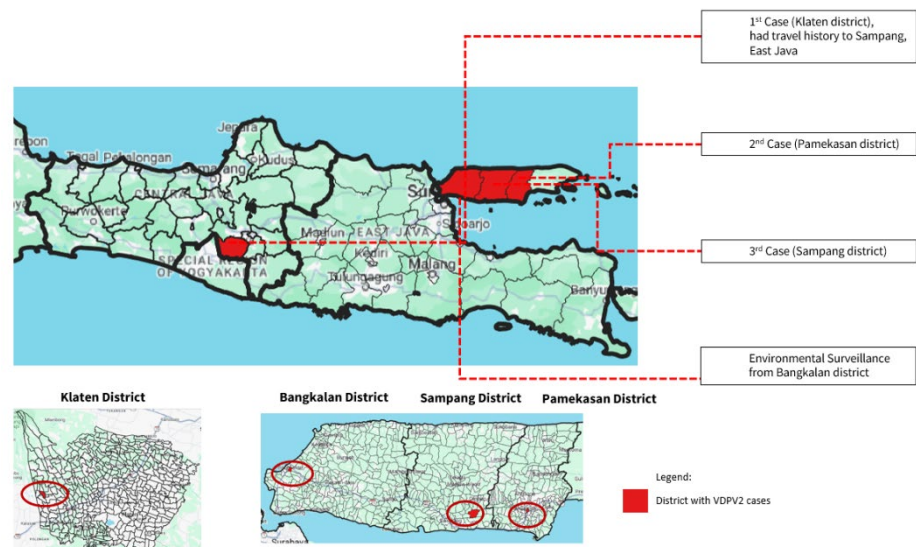


Figure 2. Location of cVDPV2 in Central and East Java provinces, Indonesia

Table 1. Description of cVDPV2 cases in November – December 2023 as of 8 January 2024

No.	Age	Onset date	Source	Polio Immunization Status	Travel history	Lab Result	Number of stool samples from healthy children ¹	Lab result of stool samples ²
1	6 years	20 November 2023	Tanjungsari Village, Manisrenggo Sub District, Klaten District , Central Java	2 dose OPV	Travel to Sampang, East Java	VDPV2, 36nt changes	Klaten: 30 Sampang: 31	Klaten: 29 Negative, 1 NPEV Sampang: 9 VDPV2 , 19 Negative, 2 NPEV, 1 SL3
2	1 year 11 month	22 November 2023	Kelurahan Baturambat Kota Pamekasan Sub District, Pamekasan District , East Java	4 dose OPV and 1 dose IPV	1 day trip to Turi, Lamongan districts, East Java	VDPV2, 43nt changes	Pamekasan: 34	Pamekasan: 26 negative, 1 NPEV, 1 SL3, 6 pending
3	3 years	6 December 2023	Madupat village, Camplong Sub-district, Sampang District , East Java	4 dose OPV	One day round trip to Pasuruan City	VDPV2, 43nt changes		NA

Abbreviations: OPV, oral polio vaccine; IPV, inactivated polio vaccine; VDPV2, vaccine-derived poliovirus type 2; nt, nucleotide; NPEV, non-polio enterovirus; SL3, Sabin-like poliovirus 3

As of 4 January 2024, Indonesia has reported a total of 4 423 Acute Flaccid Paralysis (AFP) cases in the year 2023. Figure 3 illustrates that most of these AFP cases have been classified as discarded. At the outset of the year, there were VDPV cases identified in Aceh and West Java, with additional cases reported at the end of the year in Central Java and East Java. The cases in Central and East Java are genetically linked to the West Java case. Additionally, pending classifications requiring

¹ Targeted healthy children stool sampling.
² Lab result of samples collected from healthy children.

follow-up visits were observed the highest between September and November. Pending classifications due to awaiting lab results were identified in December.

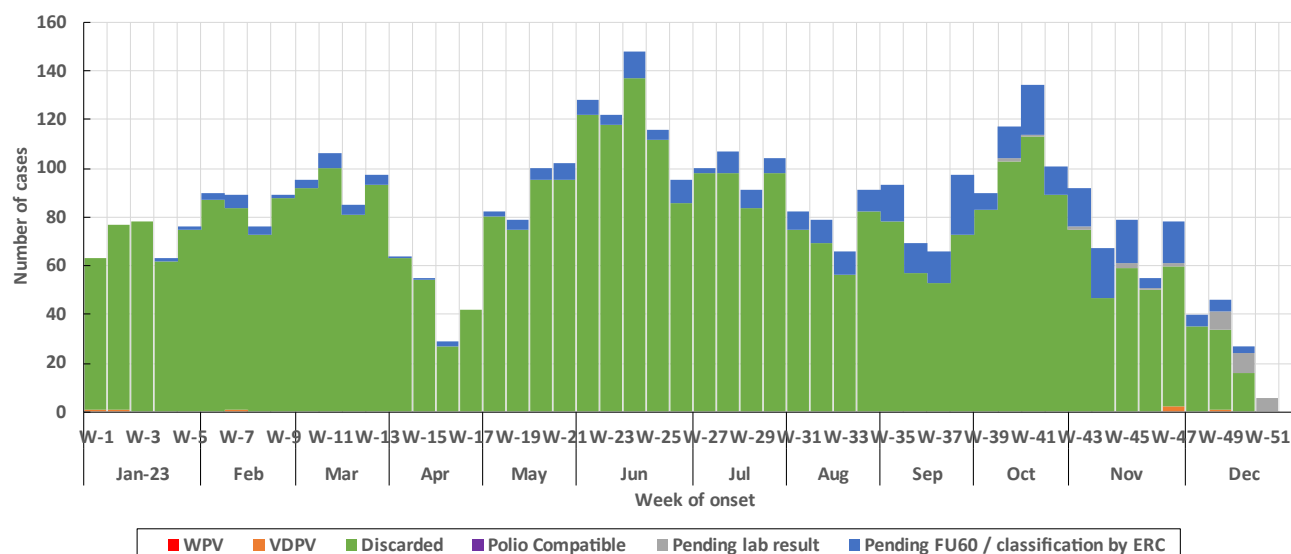


Figure 3. Final classification of AFP cases in Indonesia in 2023, data as of 4 January 2024

Environmental Surveillance

On 7 December 2023, the Center for Environmental Health, and Disease Control (BBTKLPP) Surabaya collected polio environmental surveillance samples in the Saksak River, Bangkalan district, East Java which yielded a laboratory confirmation of the presence of VDPV2 showcasing 36nt and 37nt changes.

Outbreak Response

1. Planning and Coordination

- On 19 December 2023, MoH conducted AFP case sequencing result and discussed on outbreak response with national polio laboratories, WHO, UNICEF, CDC, and PT Biofarma, with more than 90 participants.
- On 20 December 2023, WHO prepared risk assessment concerning the latest polio situation. This assessment encompassed surveillance and immunization data. Following this, MoH discussed nOPV2 readiness with WHO and UNICEF. Simultaneously, an outbreak post (Posko KLB) was established at DHO Klaten as the center for coordination between MOH, PHO Central Java, DHO Klaten, and the field epidemiology training programme (FETP) Gadjah Mada University (UGM).
- On 22 December 2023, MoH conducted coordination meeting on outbreaks response with PHO East Java, DHO in Madura Island, PHO Central Java, DHO Klaten, the national polio expert committee (NPEC), WHO and UNICEF, with more than 70 participants attending it. The follow-up of this coordination meeting is AFP surveillance strengthening activities, preparing hospitals record review (HRR) and readiness assessment.
- On 29 December 2023, DHO Klaten, WHO, and FETP UGM debriefed the head of DHO Klaten on the surveillance response measure. The meeting also established the next steps, which include conducting advocacy efforts to Klaten District Government.
- On 2 January 2024, an advocacy meeting with the Klaten District Government was conducted to officially declare the polio outbreak. This meeting was attended by the District Assistant, Ministry of Health, Central Java PHO, Klaten DHO, WHO, UNICEF, UGM, and Diponegoro University (UNDIP).
- On 6 January, MoH conducted a meeting with the national immunization committee, NPEC, the national AEFI committee, WHO, PHO Yogyakarta, and DHO Sleman on polio SIA. The meeting was attended by more than 45 participants.

- On 8 January 2024, MoH, WHO, UNICEF, and the Risk Communication and Community Engagement (RCCE) working group conducted a coordination meeting to develop frequently asked questions (FAQ) on polio.
- On 9 January 2024, WHO conducted a polio partner meeting and invited USAID, UNICEF, CDC, Rotary, CHAI, UNDP, and IFRC on outbreak response's support, such as identifying technical support by each partner.



Figure 4. Advocacy meeting with Klaten District Government (left) and Posko KLB office (right). Credit: DHO Klaten

2. Surveillance

- On 20 December 2023, MoH and WHO organized a briefing meeting with PHO Central Java, PHO East Java, DHO Klaten, DHO Sampang, DHO Pamekasan, DHO Bangkalan, Puskesmas, and FETP UGM on the immediate surveillance responses.
- On 21 December 2023, WHO and MoH investigated the VDPV2 cases in Klaten, Central Java, and Pamekasan, East Java. This investigation involved house-to-house survey to identify additional AFP cases and assess the community's immunization coverage. It also included sampling from healthy children to evaluate the ongoing circulation of VDPV2. Ten teams were formed, each team comprising surveillance officer, FETP UGM student, midwife, and cadre. The team was tasked to conduct the house-to-house survey and sampling in seven hamlets within Tanjungsari village.
- WHO also supported MoH, PHO and DHO in disseminating on investigation and house to house survey protocols. The house-to-house survey was implemented in Pamekasan city, Sub District Madupat village and Camplong Sub-district by DHO and three FETP Airlangga university (UNAIR) students.
- As of 23 December 2023, the team completed the surveillance responses in both provinces, which resulted in more than 200 houses with children under 15 years old were surveyed in Klaten, Sampang, Pamekasan, and Bangkalan districts, see table 2. Furthermore, at least 30 children under five years old were sampled in Klaten, Central Java, and Sampang and Pamekasan, East Java.



Figure 5. Data collection by FETP UGM using a digital questionnaire during the house-to-house survey on immunization status in Central Java preparation. Credit: FETP UGM

Table 2. Results of the house-to-house survey in four districts

Province/ District	The total number of houses visited	Number of Children <5y.o	The number of children who have received bOPV	The number of children who have received IPV	AFP case	Measles cases in the last 3 months ³	% open defecation
Central Java/ Klaten	211	113	111 (98.2%)	110 (97.3%)	0	2	6.3%
East Java/ Pamekasan	210	113	103 (91.1%)	90 (79.6%)	0	0	20.8%
East Java/ Sampang	211	120	60 (50.0%)	59 (49.2%)	0	34	3.1%
East Java/ Bangkalan	200	116	98 (84.5%)	87 (75.0%)	0	11	8.7%



Figure 6. Preparing stool specimen collection from healthy children in East Java (left) and specimen shipment to laboratory in Central Java (right).
Credit: PHO East Java (left) and DHO Klaten (right)

- On 26 December, MoH conducted a coordination meeting for the handling of the polio outbreak in Madura Islands that includes Bangkalan, Sampang, Pamekasan and Sumenep districts, and Klaten, Central Java. The coordination meeting discussed AFP surveillance strengthening efforts and the implementation of the HRR. This involved the attendance of the head of PHO East Java, the heads of DHO Bangkalan, Sampang, and Pamekasan, hospital directors in Bangkalan, Sampang, Sumenep, and Pamekasan, epidemiology coordinators from UNAIR and UGM, Puskesmas, WHO and other partners.
- On 27–28 December, hospital record reviews were performed in Klaten, Central Java and four districts in Madura Island, East Java. In Klaten, three teams of personnel from DHO Klaten, WHO, and FETP UGM visited 13 hospitals in Klaten to revitalize active surveillance and carry out hospital record reviews. Four cases of AFP were found, all of which were already reported to DHO Klaten.
- On 26–27 December, WHO assisted MoH, and PHO conducted coordination meeting with FETP regarding HRR planning in Bangkalan, Sampang, Pamekasan, and Sumenep.
- On 27–28 December, HRR were performed in Klaten, Central Java and four districts in Madura Island, East Java. In Klaten, three teams of DHO Klaten, WHO, and FETP UGM visited 13 hospitals in Klaten to revitalize active surveillance and carry out HRR. Four cases of AFP were found and reported to DHO Klaten.

³ Number of measles cases on these districts indicates that high risk for other VPDs cases



Figure 7. HRR was conducted in Aisiyah hospital, Klaten district, Central Java province. Credit: FETP Indonesia

3. Supplementary immunization activity (SIA)

- On 29 December 2023, the MoH issued letter number IM.02.03/Menkes/1051/2023 to encourage the governors of East Java, Central Java and Yogyakarta on polio SIA implementation for children 0-7 years old. The SIA will be conducted in two rounds with a minimum 1-month interval. The activities will take place on 15 January for 1st round and 19 February for the 2nd round.

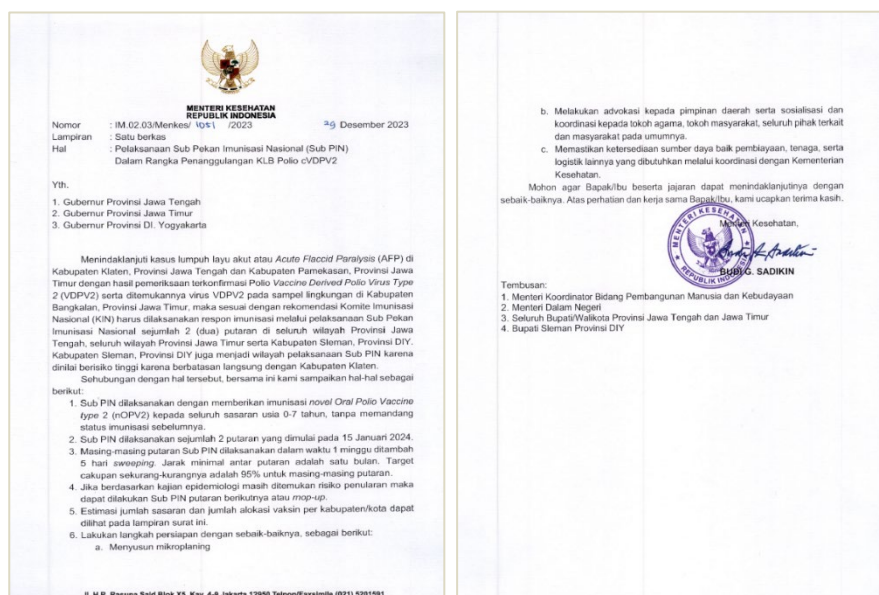


Figure 8. MoH letter on polio SIA

Table 3. Target children for polio SIA by provinces/district

Location of SIA implementation	Number of Target (0-7 years old)
East Java	4 437 679
Central Java	3 903 678
Sleman district, Yogyakarta	149 821
Total	8 491 178

- On 3 January 2024, [a virtual orientation](#) session was conducted for cross-programme and stakeholders, and training for healthcare workers. These activities covered topics such as outbreak response policies, SIA implementation includes microplanning, recording and reporting, waste management and AEFI surveillance. This orientation was attended by more than 3 000 participants through zoom and YouTube.
- On 4 January 2024, WHO assisted PHO Central Java an online SIA microplanning workshop was conducted for all DHOs

and Puskesmas in Central Java. Moreover, the workshop also facilitated in-depth questions and answers on the technical aspect of SIA implementation. This workshop was attended by more than 900 participants through zoom.

- On 2 January 2024, WHO assisted DHO Klaten for face to-face microplanning training of polio SIA to all 34 Puskesmas.

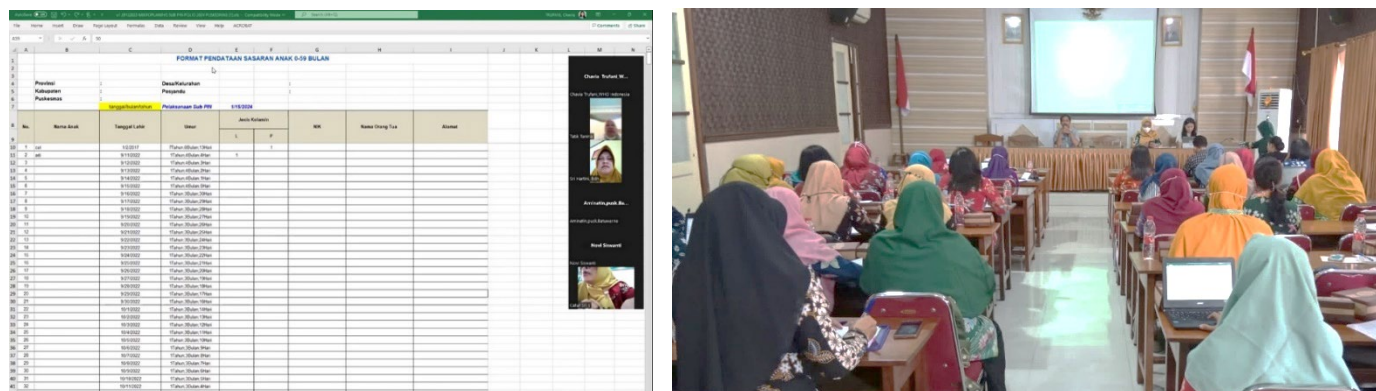


Figure 9. Microplanning training in PHO Central Java (left) and in DHO Klaten (right). Credit: WHO/Chavia Trufani (left) and DHO Klaten (right)

4. Logistics and vaccine management

- From the previous polio outbreak responses in Aceh, North Sumatra, and West Java, it was identified the remaining balance of nOPV2 vaccines around 13 863 vials that are currently stored in province pharmacy warehouse. These remaining vials will be mobilized to the current impacted provinces.
- WHO HQ has approved a request of nOPV2 vaccines for 20 039 200 doses (400 784 vials) The process of delivering vaccines to these provinces commenced on 8-9 January 2024, meanwhile for districts it is expected to distribute by latest 14 January 2024.
- UNICEF and MoH prepared the national logistics plan (NLP) and advocacy communication social mobilization (ACSM) documents for the use of nOPV2.
- On 8 January 2024, around 104 730 vials arrived in PHO East Java. On the following day, around 92 130 vials arrived in PHO Central Java and 3 540 vials arrived in Sleman District, Yogyakarta.
- UNICEF also supported the MoH on the provision of plastic containers for the three locations of polio outbreak response. The plastic containers will be used during the nOPV2 reverse logistics process.
- Under the coordination of UNICEF Field Office Surabaya, orientation for immunization and pharmacy staff on nOPV2 vaccine management targeted for district health officers and puskesmas.



Figure 10. nOPV2 arrival in pharmacy warehouse of PHO East Java. Credit: WHO/Martina

5. Advocacy, social behaviour changes, and risk communication

Advocacy

- On 2 January 2024, UNICEF and UNAIR conducted a series of advocacy and coordination meetings in East Java started, which was attended by 234 participants. The first activity was on coordination for 38 DHOs in East Java, aiming to consolidate commitment and strategy to respond to the polio outbreak, evaluate immunization and surveillance performance, and accelerate routine immunization programme.
- On 3 January 2024, UNICEF supported PHO East Java to conduct an intersectoral meeting with the potential partners from 38 districts in East Java. The started with the polio outbreak situation, followed with social and mobilization strategies, and accelerated programme on immunization.
- On 4 January 2024, a coordination meeting was conducted to consolidate and strengthen strategy for polio outbreak response, which was attended by around 101 participants that are leadership positions of CDC Department from 38 DHOs in East Java.
- On 5 January 2024, an online coordination meeting was conducted by PHO East Java to coordinate and consolidate commitment from education department, religious affair department, social department, communication and information department, village empowerment department, regional development bureau, also women and child protection department from 38 districts and provincial level, which attended around 160 participants.
- UNICEF and PHO East Java conducted an online meeting with 38 AEFI Committee at district level in East Java, which was attended by 64 participants. The meeting provided information on polio outbreak response activities, particularly on the use of nOPV2 vaccine and its safety profile.

Social behaviour change (SBC) communication

- **Online training series:** UNICEF SBC team, RCCE Plus, and Forum Kemisan (SBC Learning Forum) have been conducting online training on intrapersonal communication for polio ORI since 3 January 2024. With a total of 17 sessions planned, 8 sessions have been conducted so far, twice daily, for health promotion staff in East Java, Central Java, and Yogyakarta, attracting 500-600 participants per session. Topics include message model creation for outbreaks, vaccine hesitancy management, and interactive immunization education.
- **WhatsApp learning support:** a WhatsApp group facilitated by UNICEF, RCCE Plus and Forum Kemisan, with 593 members. This group served as a platform for Q&A sessions, experience sharing, and collaboration in the development of IEC materials, and post-training follow ups.
- **Development of training modules:** UNICEF SBC team has created modules on topics like immunization communication, rapport building techniques, participatory learning, and handling vaccine hesitancy. These are supported by RCCE Plus and Forum Kemisan.
- **Learning repository:** a [repository](#) of learning assets, including modules, articles, songs collections, and analogies for immunization, has been managed by RCCE Plus and Forum Kemisan with support from UNICEF SBC.

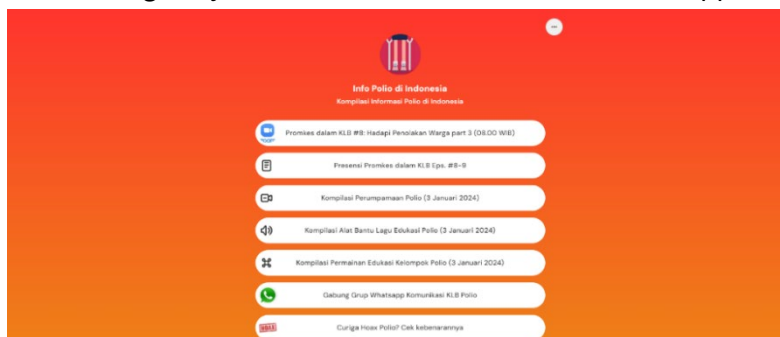


Figure 11. Repository on Polio, managed by RCCE Plus and supported by UNICEF

- **Information Education Communications (IEC) materials:** UNICEF, WHO, and MoH developed IEC materials, including banners, posters, leaflets, and Q&A sheets, to disseminate information on the polio outbreak situation in Klaten and Pamekasan districts. The IEC materials are shared through WhatsApp and published on [the polio repository](#), and MoH repository on Polio VDPV. To ensure comprehension for residents of Madura Island, the IEC materials were translated into Madura language. Additionally, UNICEF, WHO, and MoH developed FAQ to tackle misinformation, disinformation, and hoaxes related to polio outbreak and polio vaccines.



Figure 12. IEC materials

Surge Support

MoH

- MoH, PHO Central Java and East Java conduct advocacy meetings. MoH also consistently provides feedback on polio vaccination and surveillance updates.
- MoH will gather and analyze data polio SIA.
- MoH will form teams to aid in polio SIA implementation and to enhance AFP surveillance efforts

WHO

- WHO assists to create situation report
- WHO is deploying national and vaccination technical officer to Central Java, East Java, and Sleman DIY and additional support in conducting field investigation, house to house survey, advocacy, HRR, polio SIA preparation and implementation.

UNICEF

- UNICEF has established a field office in Surabaya, East Java. The team has been reinforced with a surge in support of national officers for immunization, advocacy, communication, and social behavior change.
- UNICEF will deploy national personnel members to support polio outbreak response in PHO and DHOs in East and Central Java with a primary focus on immunization, advocacy, communication, and social behavior change.

Key Issues

- The outbreak statement has not yet been issued by the provincial authorities in East Java and Central Java. The letter has been processed and is already at the Legal Bureau.
- There is lack of public awareness on vaccine leading to high vaccine hesitancy. The issue is compounded by circulation of hoaxes, which attributed to public doubts about the nOPV2 vaccine
- The upcoming President election on 14 February 2024 has raised concerns about the potential impact on execution of the 1st SIA round and the preparation for 2nd SIA round. To address this, the MoH has strategically planned a one-

week gap following the completion of the 1st SIA round, which coincides with the week of the election.

Next Steps

- PHO East Java and PHO Central Java will follow up on the outbreak statement to accelerate outbreak response process in the provinces.
- The first round SIA implementation will take place on 15 January 2024 for one week, followed by an additional week for sweeping activities.
- The delivery process of nOPV2 vaccines will be carried out by 8-9 January 2024 at province level and at least 14 January 2024 at district level.
- Vaccine hesitancy needs to be addressed through targeted communication and social mobilization efforts.

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