

Strengthening Polio Surveillance during a Poliovirus Outbreak

Revised February 2026

According to GPEI's Standard Operating Procedures for responding to poliovirus events or outbreaks, maintaining a robust and sensitive polio surveillance system that can promptly detect virus transmission is critical for interrupting poliovirus transmission and effectively closing outbreaks. Surveillance data are used to **1) inform and guide further response** activities, including supplementary immunization activities (SIAs) beyond the original outbreak-affected area and **2) provide evidence of the successful interruption** of virus transmission. Generally, the geographic scope for response activities (i.e., outbreak-affected and high-risk areas) is identified through a detailed country risk assessment with input from technical experts and may target subnational areas. However, the aim for surveillance strengthening should remain nationwide and could even span multiple countries; poliovirus can move anywhere in a country or across its borders.

Purpose: This document serves as a quick reference guide summarizing globally recommended surveillance activities to achieve a sensitive polio surveillance system. It covers surveillance for acute flaccid paralysis (AFP), environmental surveillance (ES) and laboratory surveillance. Most countries should already have these measures in place. The key priorities are: 1) **to ensure polio surveillance activities are functioning** as intended, and 2) **to adapt or enhance activities to address the challenges** presented by the outbreak.

This document outlines essential surveillance activities for outbreak response, presented as a checklist with brief explanations (see next page). National and subnational **polio outbreak response plans should use this guidance**. For further technical details, see the global polio surveillance references in Annex 1.

This document is current as of February 2026 and supersedes any previous publications.

Target audience: This guide is intended for professionals involved in poliovirus surveillance activities during outbreaks, at all levels within a country.

Checklist of Poliovirus Surveillance Strengthening Activities during a Poliovirus Outbreak

| AFP Surveillance | |
|---|--|
| 1 | Immediately notify surveillance and laboratory personnel upon polio outbreak confirmation. |
| 2 | Increase the annualized NPAFP target to >3 per 100,000 children under 15 years old in outbreak-affected and polio high-risk areas. |
| 3 | All districts and provinces should review and update their polio surveillance reporting network, including prioritization of reporting sites for active surveillance visits. |
| 4 | Ensure active surveillance visits are conducted regularly and monitored nationwide. |
| 5 | Ensure that passive surveillance is performing optimally. |
| 6 | Conduct facility-based, ad hoc active case searches to identify any unreported AFP cases. |
| 7 | Use all opportunities to conduct community-based, ad hoc active case searches to identify unreported AFP cases. |
| 8 | Verify that special populations within the outbreak-affected, high-risk and capital city areas are included within surveillance activities, and implement tailored approaches as necessary. |
| 9 | Ensure that surveillance officers receive supportive supervision and their activities are monitored. |
| 10 | Monitor surveillance performance and use data for action. |
| 11 | Prioritize investigation of silent districts and provinces in outbreak-affected and high-risk areas. |
| 12 | Establish regular mechanisms of communication with AFP surveillance partners. |
| Case Investigation | |
| 13 | Collect key information that may not be included in the AFP case investigation form. |
| 14 | Verify that AFP contact sampling is conducted for all AFP cases with inadequate stool specimens and consider expanding AFP contact sampling for certain situations. |
| 15 | Prioritize 60-day follow-up investigations for AFP cases with inadequate stool specimens, and their classification by the Polio Expert review committee. |
| Capacity building and sensitization Activities | |
| 16 | Conduct capacity building and sensitization activities as part of AFP surveillance. |
| Environmental Surveillance | |
| 1 | Assess whether the current ES network's geographic scope is adequate for the outbreak. |
| 2 | Review the performance and sensitivity of existing ES sites. |
| 3 | Maintain monthly specimen collection or increase to every 2 weeks in certain situations. |
| 4 | Identify high-risk areas where additional ES activities during an outbreak may be needed, including the use of 'ad hoc' ES sites. |
| Laboratory Surveillance - Coordination with the polio laboratories | |
| 1 | Establish communication mechanisms among surveillance and laboratory personnel at all levels. |
| 2 | Prioritize testing of samples according to geographic area and source of sample. |
| 3 | Verify that stool specimens and sewage samples are collected as recommended and reverse cold chain is maintained from point of collection to arrival at a WHO-accredited laboratory. |
| 4 | Review the timeliness of sample shipment from point of collection to arrival in the laboratory. |
| 5 | Adjust stool and sewage sample transport networks, as necessary, to ensure that a well-coordinated and rapid delivery system is maintained |
| 6 | Ensure resources are available to meet the demand for shipment and laboratory testing for an increasing number of specimens, and that a contingency plan is available to ensure that laboratory capacity can be rapidly increased if necessary |
| Additional Considerations | |
| 1 | Do not implement targeted healthy children stool sampling for strengthening polio surveillance. |
| 2 | Include surveillance updates in the national Polio Outbreak Situation Report (SitRep). |
| 3 | Prepare for GPEI's Outbreak Response Assessment (OBRA). |

Acute Flaccid Paralysis (AFP) Surveillance

When assessing and enhancing AFP surveillance performance, it is vital that activities be conducted with a gender lens. Gaps in surveillance may be due to gender biases that reflect local social norms and therefore meaningful and effective solutions may require gender responsive approaches.

1. Immediately notify surveillance and laboratory personnel upon polio outbreak confirmation.

With confirmation of an outbreak, it is important to **put the whole surveillance system on alert** and intensify efforts to detect the scope of transmission. **Use the quickest means of communication** to reach personnel at all levels to avoid delays. Informal communication may be necessary until a formal communication can be made. Use the notification as an opportunity to remind personnel of the importance to conduct active surveillance, stress the importance of highly sensitive surveillance in capital cities, ensure that passive surveillance (and Zero-reporting) is conducted, and review surveillance data and indicators to take corrective action.

2. Increase the annualized NPAFP target to ≥ 3 per 100,000 children under 15 years old in all outbreak-affected and polio high risk areas.

Outbreak-affected countries, especially those with prolonged circulation, require “**highly sensitive surveillance**” to detect poliovirus and any ongoing transmission. The annualized target for the non-polio AFP (NPAFP) rate is increased in outbreak-affected and polio high-risk areas to ≥ 3 per 100,000 children <15 years old. The target for stool adequacy remains at $\geq 80\%$. These targets are to be met for at least 12 months after the last case or isolate; data are used for outbreak response assessments.

Outbreak Affected Countries

Minimum targets for select surveillance indicators

- NPAFP rate: ≥ 3 per 100 000 children <15 years old per year
- Stool adequacy: $\geq 80\%$ of AFP cases
- Timeliness of detection for WPV/VDPV – AFP: $\geq 80\%$ of AFP cases with results available
- ES EV detection rate: $\geq 80\%$ of samples per ES site
- Adequacy of active surveillance: $\geq 80\%$ of high-priority sites visited per month

3. All districts and provinces should review and update their polio surveillance reporting network, including prioritization of reporting sites for active surveillance visits.

It is important to review and **verify that the reporting network is robust** and includes reporting sites that accurately **reflect current health service providers** within the jurisdiction, including public and private health facilities (e.g., hospitals, clinics, health centres), informal healthcare providers (e.g. faith healers), non-governmental organizations (NGOs), and refugee camps.

Update the prioritization of reporting sites for active surveillance visits, taking into account the revised reporting network and the epidemiology of the outbreak. Consider outbreak-related factors such as reporting sites adjacent to outbreak affected areas, those serving polio high-risk groups, and other outbreak related concerns to guide revisions to the prioritization scheme. Record all adjustments to the prioritization scheme.

4. Ensure active surveillance visits are conducted regularly and monitored nationwide.

Verify that active surveillance is being conducted nationwide; prioritize outbreak-affected, high-risk areas and capital cities, if resources are limited. Verification includes working with local surveillance teams to confirm the availability of a prioritized list of reporting sites, and a visit plan. At the reporting site, verify that the surveillance officer visits and reviews medical records and logbooks across all appropriate departments; interviews and sensitizes medical staff on polio and AFP reporting (see Section 16); and check for regular supervision and documentation of active surveillance visits.

5. Ensure that passive surveillance is performing optimally.

Verify that passive surveillance (also known as routine surveillance or Zero-reporting) is being implemented nationwide. Upon outbreak notification, surveillance officers must check that reporting **targets for completeness and timeliness** – including zero reporting – are met. If resources are limited, **prioritize**

outbreak-affected, polio high-risk and capital city areas for immediate corrections, then expand efforts nationwide. Refer to Section 16 on sensitization activities to improve completeness and timeliness of passive or routine reporting.

6. [Conduct facility-based, ad hoc active case searches to identify any unreported AFP cases](#)

Facility-based, ad hoc active case searches (also known as retrospective medical records reviews, ad-hoc records reviews) are a one-time visit to health facilities. Activities to be completed are the same as active surveillance visits with the exception that **records should be reviewed for a longer period** (6 months prior to the date of the visit) to ensure that no girl or boy with AFP was unreported to public health authorities.

- In outbreak-affected and polio high-risk areas, **visit high-priority health facilities** and then expand to medium- and low- priority health facilities. High priority health facilities in all capital areas (national and subnational) should also be prioritized.
- **Investigate all unreported AFP cases** identified during the visit. Further details on investigation activities are included in Annex 2.
- Use visits as opportunities to **alert staff of the outbreak** and sensitize them on AFP reporting (see Section 16).

7. [Use all opportunities to conduct community-based, ad hoc active case searches to identify unreported AFP cases.](#)

Community-based, ad hoc active AFP case searches are a valuable complement to facility-based, ad hoc active searches for AFP cases and should be conducted whenever opportunities arise during visits to communities.

- Ask women and men community members and leaders about individuals with AFP symptoms **during every visit**, whether for AFP or polio case investigations, conducting community sensitization activities, and other purposes.
- Include active case search in trainings for **vaccination teams** so they can ask community leaders and caregivers about anyone with AFP symptoms as they move through communities.

8. [Verify that special populations within the outbreak-affected, high-risk and capital city areas are included within surveillance activities and implement tailored approaches as necessary.](#)

Special populations are often overlooked by the **health system**, may have lower population **immunity** due to insufficient vaccination coverage and when combined with **high mobility**, they are more likely to contribute to ongoing transmission of the virus. Examples of special populations include those living in security-compromised areas, mobile populations (e.g., nomads and seasonal migrants), refugees and IDPs in camps or living in host communities, and communities in settled areas who do not routinely access health services (e.g., cross-border population, urban slums, islanders).

Surveillance officers should work with government and non-government partners to identify special populations within their jurisdictions, understand their health-seeking behaviours, and develop tailored approaches to make sure they are included within surveillance activities. Further information on supplemental strategies for special populations are included in Annex 5 and in the [Global AFP Surveillance Guidelines](#).

9. [Ensure that surveillance officers receive supportive supervision and their activities are monitored.](#)

It is important to ensure that there are sufficient human resources to carry out **supportive supervision and monitoring of women and men surveillance officers**, especially in the outbreak-affected, polio high-risk and capital city areas. This may require re-assigning staff from elsewhere in the country to outbreak-affected, high-risk, and capital city areas to ensure a knowledgeable and responsive gender-balanced workforce.

10. [Monitor surveillance performance and use data for action.](#)

At the national and subnational levels, **monitor the performance** of the surveillance system on a weekly basis by reviewing the NPAFP rate, stool adequacy, and surveillance process and timeliness **indicators** to identify

and correct surveillance quality gaps that negatively affect poliovirus detection. Refer to Annex 3 for a list of key indicators to monitor during an outbreak and Annex 4 for a list of ‘surveillance triggers’

11. [Prioritize investigation of silent districts and provinces in outbreak-affected and polio high-risk areas.](#)

Immediately investigate the reasons for which districts and provinces within outbreak-affected and polio high risk areas are under-performing or remain 'silent', i.e. do not report any AFP cases. This is especially important in administrative areas with >50,000 children <15 years old because they may represent critical gaps in poliovirus detection. Refer to the [Global AFP Surveillance Guidelines](#) on recommended activities and corrective steps for silent areas.

12. [Establish regular mechanisms of communication with AFP surveillance partners.](#)

Regular communication with local AFP surveillance partners (e.g., other governmental groups, NGOs, key health facilities and key women and men community leaders) is a critical activity to maintain partner engagement and support.

- Establish **regular surveillance review meetings** of **all groups and stakeholders** engaged in AFP surveillance to discuss how to further optimize surveillance performance, including challenges and possible solutions.
- Provide **regular feedback (weekly) to colleagues in the field** on surveillance activities as well as on the larger outbreak response activities to keep surveillance stakeholders informed.

AFP CASE INVESTIGATION

13. [Collect key information that may not be included in the AFP case investigation form.](#)

During polio outbreaks, the following information should be collected from all AFP cases nationwide to better understand the epidemiology of the outbreak (if not already routinely collected). A suggested case investigation form is included in [Global AFP Surveillance Guidelines](#):

- Recent **travel history** of AFP case and household members (e.g., location, dates, people met).
- **Visitors** received by the AFP case's family before and after the paralysis onset date.
- **Details of health care providers consulted** by the family of the AFP case before notification to public health authorities.
- Member of a **high-risk group**.
- **Polio vaccination** received from routine immunization documented separately from campaign vaccination. For campaign vaccination, ask date(s) of most recent campaigns that the child was vaccinated.

14. [Verify that AFP contact sampling is conducted for all AFP cases with inadequate stool specimens and consider expanding AFP contact sampling for certain situations.](#)

Verify that the globally recommended practice of AFP **contact sampling for all AFP cases with inadequate stool specimens** is being conducted throughout the country. Refer to the [Global AFP Surveillance Guidelines](#) on when and how to perform AFP contact sampling. During polio outbreaks, AFP contact sampling may be expanded to all AFP cases (i.e., AFP cases with adequate and inadequate stool specimens collected) in high-risk, security-compromised or hard-to-reach populations. However, any decision to expand AFP contact sampling should be made in close coordination and collaboration with GPEI partners and laboratory counterparts and should be a time limited activity.

15. [Prioritize 60-day follow-up investigations for AFP cases with inadequate stool specimens, and their classification by the Polio Expert review committee.](#)

The practice of conducting 60-day follow-up investigations varies from country to country. During outbreaks, prioritization should be given to **AFP cases with inadequate stool specimens collected to enable the quick review and final classification** of pending AFP cases by the National Expert Review Committee or equivalent

committee. Attention should be placed on regions where compatible cases have been found, as these indicate surveillance weaknesses.

CAPACITY BUILDING AND SENSITIZATION ACTIVITIES

16. Conduct capacity building and sensitization activities as part of AFP surveillance

A. Conduct re-fresher trainings on polio and polio surveillance for surveillance officers and focal points.

Formal trainings that include practical, hands-on exercises are encouraged for which technical resources are available through WHO country and regional offices, national MOH offices, and online (see Annex 1 references). However, **informal trainings such as sensitization during supervisory visits** is especially important during an outbreak and should also be conducted to make sure there is a knowledgeable gender-balanced workforce until a formal training can be conducted.

B. Conduct AFP surveillance sensitization activities among healthcare providers.

Awareness about AFP surveillance among **women and men healthcare providers** is important, to ensure they fully understand the difference between AFP and clinical poliomyelitis, and the need to report the syndrome AFP in any child <15 years old. In addition to conducting formal sensitization activities, it is important to **use every interaction, including active surveillance visits** and other meetings, to increase awareness of AFP, polio, and the need for immediate reporting to public health authorities. **Provide posters, job aids, and list of phone numbers for easy reference and include sensitization activities for medical professional networks and associations.**

C. Conduct polio and AFP surveillance sensitization activities within communities.

During outbreaks, increasing awareness among women and men community members who serve as **polio volunteers, community informants, and community health workers, as well as community leaders** and the broader community, is an effective way to increase AFP reporting.

D. Conduct polio and AFP surveillance sensitization activities among governmental and non-governmental organizations and engage their support.

Other governmental groups or NGOs may provide health-related and other services (e.g., housing, veterinary) to **communities and special populations**. Therefore, it is important to sensitize them on the outbreak and the need to detect and report AFP cases.

Environmental Surveillance

Environmental surveillance (ES) complements AFP surveillance and **is not a substitute**. ES can help provide **information on the geographic extent** of the outbreak, **community transmission** and **duration** of poliovirus transmission, as well as the **excretion of polio vaccine virus following vaccination campaigns**. Oversight and management of ES differ across countries, but at a minimum, discussions about ES should always involve both surveillance and laboratory staff. This ensures that all key groups understand the need for and capability to collect, transport, and test ES samples.

The primary activities for ES strengthening during an outbreak are:

1. Assess whether the current ES network's geographic scope is adequate for the outbreak.

Review the location and geographic scope of existing ES sites and **determine whether the existing ES sites are adequate for monitoring the outbreak** and response activities, or if additional sites may be needed.

2. Review the performance and sensitivity of existing ES sites.

Assess the performance of all existing poliovirus ES sites in the area. Thoroughly assess sites that have had less than 50% enterovirus detection for 6 months and take action as needed. For example, close or move sampling site and assess other reasons for low enterovirus isolation rates.

3. Maintain monthly specimen collection or increase to every 2 weeks in certain situations.

For sensitive ES sites, **maintain the frequency of specimen collection to monthly**. Depending on the context and in coordination with laboratory colleagues, the frequency **could be increased to every two weeks**; for example, in a high-risk zone or an area bordering an outbreak zone. However, the increased frequency of collection should only be conducted for a maximum of six months following the most recent poliovirus detection or most recent use of type 2 containing OPV, whichever is most recent.

4. Identify high-risk areas where additional ES activities during an outbreak may be needed, including the use of 'ad hoc' ES sites.

Ad hoc ES sites are temporary ES sites selected to enhance surveillance in areas considered at high-risk of poliovirus transmission because of an outbreak or sudden influx of at-risk populations. The programme should plan to stop collection of samples from these ad hoc ES sites when the risk of polio transmission has decreased or once the outbreak has been closed. Or the programme may choose to re-classify ad hoc ES sites as **permanent (or routine) ES sites**; permanent sites collect samples routinely for programme needs.

Laboratory Surveillance - Coordination with polio laboratories

1. Establish communication mechanisms among surveillance and laboratory personnel at all levels.

It is imperative that surveillance officers and laboratorians **closely communicate and coordinate on any approaches that may increase laboratory workload**. Increased storage and testing of stool specimens (e.g., expanded AFP contact sampling) and of sewage samples (e.g., additional ES sites are opened) can overwhelm laboratory resources and staff. Any decision for increased testing should be made jointly with advance notification to permit preparations and planning. It is critical for surveillance and laboratory personnel to routinely communicate with one another, at a minimum weekly, on the changing demand for laboratory resources. **Routine communication is also critical for data harmonization.**

2. Prioritize testing of samples according to geographic area and source of sample.

Testing of stool specimens and sewage **samples from outbreak-affected and polio high-risk areas should be prioritized** because results will inform (1) the need for additional vaccination campaigns in the outbreak-affected area should poliovirus continue to be detected (breakthrough) and (2) the geographic scope of the outbreak. Surveillance officers should indicate on submission forms the samples that should be prioritized for testing.

It is recommended to prioritize samples for testing by following this rank-order scheme: 1) samples from “hot AFP cases”, 2) AFP samples and their contacts 3) ES samples and 4) other human samples (e.g., healthy children – however, if a healthy children stool survey is being conducted to confirm local transmission, those samples should take priority too).

3. Verify that stool specimens and sewage samples are collected as recommended and reverse cold chain is maintained from point of collection to arrival at a WHO-accredited laboratory.

Isolation of poliovirus is essential to confirm polio diagnosis in an AFP case and poliovirus transmission in a community. It is essential that **sufficient supplies are made available to collect, store, and transport stool specimens and sewage samples under reverse cold chain conditions**. Meticulous attention to specimen collection, storage and transport under reverse cold chain conditions is especially important for samples from remote or difficult to access areas within outbreak-affected and high-risk areas.

4. Review the timeliness of sample shipment from point of collection to arrival in the laboratory.

Ensure the programme is meeting the timeliness targets for national and international transport. **Ensure no batching** of specimen to avoid delays in detecting poliovirus.

5. Adjust stool and sewage sample transport networks, as necessary, to ensure that a well-coordinated and rapid delivery system is maintained.

Surveillance and laboratory personnel should work together to **identify and investigate any bottleneck issues**, and identify **alternative transport means and routes** to get samples to the laboratory as soon as possible. This may necessitate engaging new partners, i.e. new transport and courier services.

6. Ensure resources are available to meet the demand for shipment and laboratory testing for an increasing number of specimens, and that a contingency plan is available to ensure that laboratory capacity can be rapidly increased if necessary.

During the early phase of an outbreak, laboratory personnel and resources (e.g., personnel, reagents, supplies, etc.) may be able to handle the increased workload. However, the tipping point can come quickly when demand for testing outweighs available laboratory capacity. Ensure that **a contingency plan for shipping and testing samples** is available and can be readily implemented. This may include contacting other polio laboratories to have them on standby and ready to take on some of the workload, as well as funding for shipment.

Additional Considerations

1. Do not implement targeted healthy children stool sampling for strengthening polio surveillance.

Targeted healthy children stool sampling (THCSS) is the collection of specimens from healthy children who have not been in contact with the positive poliovirus case. It is conducted in a **very specific situation to determine if there is community-wide transmission of poliovirus** (for example, a VDPV case is detected). In addition, THCSS may be considered for children coming from inaccessible areas where poliovirus transmission is suspected. However, it is **not recommended as part of overall efforts to strengthen surveillance** performance and is not recommended during investigations of silent districts and provinces. THCSS is of limited use once a polio outbreak is confirmed and would be an inefficient and ineffective use of programme resources.

Note: any decision to conduct THCSS should be made in close coordination and collaboration with national surveillance and laboratory personnel. For more information on THCSS, refer to [Global AFP Surveillance Guidelines](#).

2. Include surveillance updates in the national Polio Outbreak Situation Report (SitRep).

Include up-to-date **surveillance information in the SitRep**, using maps and figures to quickly orient key individuals on the scope of the outbreak and surveillance performance. Interpretation of findings as well as next steps on any corrective actions should be documented.

3. Prepare for GPEI's Outbreak Response Assessment (OBRA's).

Women and men surveillance staff at the national-level and selected provincial and district surveillance teams within the outbreak-affected and polio high-risk areas, should be prepared to provide a comprehensive summary of polio surveillance performance as part of GPEI's Outbreak Response Assessments (OBRA). When closing a polio outbreak, it is vital to assess and determine that the overall polio surveillance system is of high quality such that the absence of virus detection indicates interruption of virus transmission, and not the inability to detect virus. An outbreak cannot be closed if the polio surveillance system is deemed not sensitive.

Annex 1. References

| | |
|--------------------------------------|---|
| Polio Surveillance Action Plan | GPEI. Global Polio Surveillance Action Plan, 2025-2026. WHO. Prepublication version. https://polioeradication.org/wp-content/uploads/2025/01/Global-Polio-Surveillance-Action-Plan-2025-2026.pdf |
| Acute flaccid paralysis surveillance | GPEI. Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication. https://polioeradication.org/wp-content/uploads/2026/01/Global-AFP-guidance-pre-publiation-2026.pdf |
| | GPEI. Guidelines for Implementing Polio Surveillance in Hard-to-Reach Areas & Populations. WHO. https://polioeradication.org/wp-content/uploads/2020/10/Guidelines-polio-surveillance-H2R-areas.pdf |
| | GPEI. Best Practices in active surveillance for polio eradication. https://polioeradication.org/wp-content/uploads/2018/12/Best-practices-in-active-surveillance-for-polio-eradication.pdf |
| | GPEI. AFP surveillance training package (in person training) https://polioeradication.org/resource-hub/?rh_tools=surveillance-resources |
| | GPEI. Online self-study on AFP surveillance https://who.csod.com/login/render.aspx?id=defaultclp&CLP=false |
| Environmental surveillance | GPEI. Field guidance for the implementation of environmental surveillance for poliovirus. https://polioeradication.org/wp-content/uploads/2023/06/Field-Guidance-for-the-Implementation-of-ES-20230007-ENG.pdf |
| iVDPV surveillance | GPEI. GUIDELINES for Implementing Poliovirus Surveillance among Patients with Primary Immunodeficiency Disorders (PIDs) - https://polioeradication.org/wp-content/uploads/2024/05/Guidelines-for-Implementing-PID-Suveillance_EN.pdf |
| Outbreaks | GPEI. Standard Operating Procedures for responding to a poliovirus event or outbreak. See the GPEI Resource Hub on Outbreak Preparedness and Response for the most current version: https://polioeradication.org/resource-hub/?rh_tools=outbreak-preparedness-and-response |
| | GPEI. Aide Mémoire - Poliovirus Outbreak Response Assessment (OBRA). https://polioeradication.org/wp-content/uploads/2024/05/Polio-Outbreak-Response-Assessment-Aide-Memoire-version-5-20251111.pdf |

Annex 2. Further details on recommended AFP surveillance activities

Section 3: All districts and provinces should review and update their polio surveillance reporting network, including prioritization of reporting sites for active surveillance visits.

In countries with existing active surveillance system: Prioritization of reporting sites for active surveillance visits is based on sites (i.e., facilities) that are most likely to provide care for AFP patients. Sites are classified as high, medium and low priority. Additional prioritization criteria may be recommended by the WHO regional and country offices, such as classifying as ‘high risk’ as site with proximity to inaccessible areas or a site located within a high-risk population, such as a refugee camp. The frequency of active surveillance visits is aligned with the priority level of the reporting site. For example, high priority sites are often major hospitals, large paediatric clinics, and physiotherapy centres and are therefore recommended for weekly active surveillance visits.

| Priority classification | Frequency of visits |
|-------------------------|------------------------|
| High | Weekly |
| Medium | Every 2 weeks |
| Low | Monthly |
| Passive surveillance | No active surveillance |

Of note, active surveillance is key to timely detection of AFP cases and is complemented by passive surveillance by all reporting sites. The last row in the table reflects the absence of active surveillance visits for a subset of reporting sites and reliance on passive surveillance, which may be classified as “Zero-reporting” by countries.

In countries with limited or no active surveillance, it is recommended to identify major hospitals or health facilities where children who experience sudden onset of paralysis may seek care (such as children's hospitals, paediatric wards, or major neurological centres). Once these facilities are identified, healthcare personnel should be briefed, a focal person appointed, and regular visits by the district unit should be scheduled—either weekly or twice a month—to review registers and ensure all AFP case are detected.

If a country maintains a strong and effective passive surveillance system, it is recommended to concentrate active surveillance efforts on high-priority sites while relying on routine surveillance for other health facilities. If not, establishing a comprehensive active surveillance system is another option; however, its sustainability should be carefully considered within the context of an integrated system.

Refer to the [Global AFP Surveillance Guidelines](#) for more details on active surveillance, and online training materials.

Section 6: Conduct facility-based, ad hoc active case searches to identify any unreported AFP cases.

The figure below summarizes activities to be taken for unreported AFP cases that are identified. Refer to [Global AFP Surveillance Guidelines](#) for more details on facility-based, ad hoc active case searches.

| Paralysis onset ≤14 days | Paralysis onset >14 days to <60 days | Paralysis onset ≥60 days to ≤6 months | Paralysis onset >6 months |
|---|---|---|--|
| <ul style="list-style-type: none"> • Conduct an AFP case investigation • Collect stool specimens • Remember, stool specimens can be deemed inadequate upon arrival at the laboratory | <ul style="list-style-type: none"> • Conduct an AFP case investigation • Collect stool specimens • Also conduct: <ul style="list-style-type: none"> • AFP contact sampling • 60-day follow-up examination | <ul style="list-style-type: none"> • Conduct an AFP case investigation • Conduct 60-day follow-up examination • No stool specimens collected from AFP case or AFP contacts | <ul style="list-style-type: none"> • Record information on “Unreported AFP Case” line list • No AFP case investigation completed • No stool specimens collected from AFP case or AFP contacts |

Annex 3. Selected polio surveillance indicators to monitor during a polio outbreak

(Extracted and modified from GPSAP 2025-26; calculation details can be found in the GPSAP)

| | INDICATOR | DESCRIPTION | TARGET |
|---------------------------------|--|--|--------------------------|
| AFP surveillance quality | Non-polio AFP rate | NPAFP cases per 100 000 population aged <15 years (rate should be annualized) | OB-affected: ≥ 3 |
| | Stool adequacy | Proportion of AFP cases with 2 stool specimens collected ≥ 24 hours apart, both within 14 days of paralysis onset, AND received in good condition in a WHO-accredited laboratory | $\geq 80\%$ |
| | Stool condition | Proportion of AFP cases with 2 stool specimens arriving in good condition at a WHO accredited lab | $\geq 80\%$ |
| | Completeness of AFP contact sampling | Proportion of inadequate AFP cases with 3 contact samples collected | $\geq 80\%$ |
| | Completeness of 60-day follow-ups | Proportion of inadequate AFP cases with a follow up exam for residual paralysis completed within 60–90 days of paralysis onset | $\geq 80\%$ |
| AFP - Timeliness of detection | Timeliness of notification | Proportion of AFP cases reported within 7 days of paralysis onset | $\geq 80\%$ |
| | Timeliness of investigation | Proportion of AFP cases investigated within 48 hours of notification | $\geq 80\%$ |
| | Timeliness of field activities | Proportion of AFP cases with two stool specimens collected ≥ 24 hours apart and within 11 days of paralysis onset | $\geq 80\%$ |
| | Timeliness of stool specimen shipment | Proportion of AFP cases with stools that arrive at a WHO-accredited lab within 3 days (domestic shipment) or 7 days (international shipment) of specimen collection | $\geq 80\%$ |
| | Timeliness of optimized field and shipment | Proportion of AFP cases with samples that arrive in the lab within 14 days (domestic shipment) or 18 days (international shipment) of paralysis onset | $\geq 80\%$ |
| | Timeliness of detection for WPV/VDPV – AFP | Proportion of AFP cases with WPV/VDPV final lab results within 35 days (full laboratory capacity) or 46 days (without full laboratory capacity) of paralysis onset | $\geq 80\%$ of AFP cases |
| AFP surveillance quality | Completeness of WZR | Proportion of designated reporting sites submitting a zero report/weekly report for AFP cases | $\geq 80\%$ |
| | Timeliness of WZR | Proportion of designated reporting sites for AFP reporting by the deadline | $\geq 80\%$ |
| | Adequacy of active surveillance visits | Proportion of high-priority sites visited, as per plan | $\geq 80\%$ |
| | AFP case encounters | Proportion of AFP cases with ≤ 2 health encounters between onset and notification | $\geq 80\%$ |
| Environmental surveillance KPIs | ES EV detection rate | Proportion of samples where EV was detected, by site | $\geq 50\%$ |
| | Condition of ES sample | Proportion of samples that arrive in the laboratory in good condition | $\geq 80\%$ |
| | Timeliness of ES sample shipment | Proportion of samples that arrive at a WHO-accredited lab within 3 days (domestic shipment) or 7 days (international) of sample collection | $\geq 80\%$ |
| | Timeliness of detection for WPV/VDPV – ES | Proportion of ES samples with WPV/VDPV final lab results within 35 (full laboratory capacity) or 46 days (without full laboratory capacity) of collection | $\geq 80\%$ |
| Laboratory surveillance KPIs | Timeliness of virus isolation results | Proportion of specimens with virus isolation results within 14 days of receipt of AFP specimen or ES concentrate at WHO-accredited lab | $\geq 80\%$ |
| | Timeliness of ITD results | Proportion of specimens with ITD results within 7 days of virus isolation results | $\geq 80\%$ |
| | Timeliness of shipment for sequencing | Proportion of specimens that arrive at the sequencing lab within 7 days of ITD results | $\geq 80\%$ |
| | Timeliness of sequencing results | Proportion of specimens with sequencing results available within 7 days (AFP) or 14 days (ES) from arrival at the sequencing laboratory | $\geq 80\%$ |

AFP = acute flaccid paralysis; EV = enterovirus; ES = environmental surveillance; ITD = intratypic differentiation; NPAFP = non-polio acute flaccid paralysis; VDPV = vaccine-derived poliovirus; WZR = weekly zero reporting; WPV = wild poliovirus; WHO = World Health Organization.

Annex 4. Monitoring surveillance performance and possible signs of diminished surveillance sensitivity

Monitoring the quality and sensitivity of polio surveillance must include monitoring timeliness indicators to measure how quickly and effectively the surveillance system can detect, notify and confirm a poliovirus. Every effort should be made to expedite each surveillance step to reduce the number of days within the targets; further details are available in the Global Polio Surveillance Action Plan 2025-2026 and [Global AFP Surveillance Guidelines](#). A few considerations when monitoring surveillance sensitivity:

- Districts with <50,000 children <15 years of age may not detect AFP cases every year; however, AFP surveillance **quality and process indicators must be monitored** to ensure that if there was a polio case, it would be detected.
- Review the **demographics of reported AFP cases**—such as age, special population status, and accessibility—to spot gaps in surveillance. Unusual patterns, like mostly male cases or none from inaccessible areas, may indicate missed cases. Investigate findings and take corrective action as needed.
- It is vital for analyses to be disaggregated by sex to identify any gender-related barriers to paralytic cases being identified, reported, and investigated so that gender sensitive corrective action can be implemented.
- When **many AFP cases are detected through vaccination campaigns, it may artificially inflate the NPAFP rate**, giving a false sense of security that the system is highly sensitive. Programmes can critically assess their NPAFP rate by calculating the rate with and without the AFP cases reported during SIAs, or by disaggregating the AFP cases reported from within/outside the reporting network, for a more in-depth analysis. This distinction and granularity in the data will allow the programme to capture improvements to surveillance sensitivity while also providing indication on the baseline capacity the routine system can achieve.
- Regularly (weekly) monitor the **epidemiology of the outbreak** to inform outbreak response efforts, including age and sex distribution of polio cases, geographic distribution of polio cases, and clusters of AFP cases that may suggest undetected poliovirus circulation. Findings may suggest a need to expand vaccination campaigns demographically and geographically.

Certain laboratory results (e.g., orphan viruses, absence of vaccine virus or enterovirus, ES detections in absence of polio case) or clustering of cases are important triggers that may be indicative of diminished surveillance sensitivity. These should be investigated and are further described in the table below.

| Trigger | Indication | Action |
|---|---|---|
| ORPHAN VIRUSES | | |
| Detection of an orphan poliovirus (wild or vaccine-derived) in a human or environmental sample. | It is a critical signal, suggesting gaps in population immunity, possible gaps in surveillance and undetected community transmission. The gaps in surveillance can be attributed to several possible causes such as <ul style="list-style-type: none"> • missing population subgroups in surveillance activities, • poor AFP case reporting, delayed AFP case investigation and • inadequate stool specimen collection. | In-depth assessment of surveillance performance , regardless of performance indicators. The objective of the assessment is to understand if the national programme is missing a geographic area or population segment , or the virus was likely introduced from another country. In addition to standard performance and process indicators, the assessment will need to examine high risk and hard to reach populations and areas, and population movement . |
| NO ISOLATION OF VACCINE VIRUSES OR ENTEROVIRUSES FROM AFP CASES | | |
| No vaccine viruses or enteroviruses detected in AFP cases in six months | The absence of detection of any vaccine viruses after SIAs or enteroviruses over a six-month period may suggest a problem with the reverse cold chain. When reverse cold chain is not properly maintained, viruses (vaccine and enteroviruses) will not survive arrival to the testing laboratory. However, this trigger should be interpreted with caution based on seasonality of enterovirus in the area. | Assess the reverse cold chain. Review field (e.g., stool condition) and laboratory data to determine if the issue is specific to the field (geographic area) or possibly a laboratory test issue. |

| Trigger | Indication | Action |
|--|--|--|
| ES AND AFP SURVEILLANCE DISCONNECT | | |
| <p>Poliovirus detected in environmental samples in absence of clinical cases</p> | <p>Disconnect between detections in AFP and ES may suggest low sensitivity within the AFP surveillance system.</p> | <p>Assessment of AFP surveillance performance is necessary and will need to examine high risk and hard to reach populations and areas, population movement, as well as standard surveillance performance and process indicators.</p> <p>In certain situations, such as highly vaccinated communities, there may be silent transmission due to asymptomatic infections. The programme should focus on identifying high risk population groups and proceed with targeted ES expansion to better document the scale of the outbreak.</p> |
| CLUSTER OF CASES (AFP, COMPATIBLES) | | |
| <p>Look out for clusters of AFP cases, compatible cases.</p> | <p>A cluster of AFP cases is defined as at least twice the number of expected AFP cases occurring in a district (or province in small countries) within a one-to-two-month period. A sudden increase is worrisome as something unusual is happening.</p> <p>A cluster of compatibles cases is worrisome because these cases indicate a surveillance failure and the programme cannot rule out polio as the cause. A cluster of compatible cases is defined as ≥ 2 cases in the same/neighbouring districts within a province and within a one-to-two-month period.</p> | <p>Detailed field investigation must be carried out to understand the reason of the failure (and possibly cluster).</p> <p>For a cluster of AFP cases, expedite laboratory testing of samples.</p> |

Annex 5. Suggested strategies for selected special population groups and areas

Ensuring effective surveillance is crucial for timely detection and response, especially in populations at greater risk or those that are harder to reach. Below are several practical strategies to enhance community involvement, establish key partnerships, and improve targeted surveillance:

- Notify community leaders about the outbreak. Identify women and men focal points within communities and equip them with the necessary training and tools to detect and report suspected AFP cases.
- Build innovative partnerships with groups and services that have access to specific populations (e.g. civil society groups, women's collectives, grassroots networks, veterinarians, etc.).
- Consider implementing supplemental surveillance methods. Due to their typically low yield and high resource demands, these approaches should only be adopted after consultation with GPEI partners and laboratory experts. For example, systematic AFP contact sampling in high-risk, insecure, or difficult-to-reach areas.
- If poliovirus is detected among high-risk mobile populations (like internally displaced people, refugees, or nomads), or in regions visited by such groups, immediately review the surveillance network and reporting sites—both active and passive/zero reporting—along known migration routes to find evidence of virus transmission.

| GROUP | STRATEGIES |
|--|---|
| Populations living in security compromised areas | <ul style="list-style-type: none"> • Analyse access: identify key partners and factions, population dynamics. • Negotiate access. • Sensitize and brief relevant partners and community members about polio and AFP case reporting. • Review surveillance network by identifying and training appropriate women and men focal points for case reporting— i.e., community-based surveillance as appropriate. • Conduct ring surveillance: intensify surveillance around inaccessible areas. • Conduct periodic active case search in community and healthcare facilities. • Explore the use of supplemental surveillance strategies, in coordination with WHO regional team (e.g. systematic contact sampling of AFP cases; THCSS; ad hoc ES). • Track access and perform disaggregated data analysis to monitor surveillance by accessibility status. |
| Nomads/Mobile populations | <ul style="list-style-type: none"> • Map and learn about the population from leaders and/or surveillance focal points. • Determine itineraries of the population and map healthcare facilities and providers (including veterinarians) along the route. • Sensitize populations and providers. • Conduct market sensitization along the route and close to water points and camps. • Establish regular contact with women and men focal points for reminders and feedback on reporting. • Conduct active case search in large gatherings of nomadic groups during SIAs and mobile outreach services. • Explore the use of supplemental surveillance strategies, in coordination with WHO regional team (e.g. Systematic contact sampling of AFP cases; THCSS; ad hoc ES). |
| Informal IDPs and refugees in host community | <ul style="list-style-type: none"> • Identify key women and men informants from the community to include in surveillance network. • Provide appropriate job aids. • Determine health-seeking behaviour. • Adjust surveillance network; increase frequency of active surveillance visits. • Conduct active case search during SIAs and mobile activities. • Explore the use of supplemental surveillance strategies, in coordination with WHO regional team (e.g. Systematic contact sampling of AFP cases; THCSS; ad hoc ES). • Initiate community IDP and refugee tracking (tracker team). |
| Ethnic minorities | <ul style="list-style-type: none"> • Consider mapping the populations including movement within and outside the country. • Conduct an assessment to better understand healthcare service utilization: health-seeking behaviours and barriers to using health services (especially government-run services). • Evaluate the availability of communication activities targeting communities including language and gender-related barriers. • Adjust the surveillance network-based findings from assessments. • Collaborate with stakeholders and organizations trusted by the communities to conduct AFP surveillance including identifying women and men focal points to report suspected AFP cases. • Explore the use of supplemental surveillance strategies, in coordination with WHO regional team (e.g. systematic contact sampling of AFP cases; THCSS; ad hoc ES). |