POLIO GLOBAL ERADICATION INITIATIVE

Global Polio Surveillance Action Plan 2025–2026

PRE-PUBLICATION VERSION

EVERY LAST CHILD

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ACKNOWLEDGEMENTS

This report reflects contributions from epidemiologists, laboratorians, information management specialists, public health and gender experts from across the field, regional and global levels in a collaboration led by the agency partners of the Global Polio Eradication initiative (GPEI): Rotary International, the World Health Organization (WHO), the US Centers for Disease Control and Prevention (CDC), the United Nations Children's Fund (UNICEF), the Bill & Melinda Gates Foundation, and Gavi, the Vaccine Alliance.

ACRONYMS AND ABBREVIATIONS

AFM	Acute flaccid myelitis
AFP	Acute flaccid paralysis
AFR	African Region
AFRO	Regional Office for Africa
AMR	Region of the Americas
API	Application programming interface
bOPV	Bivalent oral poliovirus vaccine
CBS	Community-based surveillance
CDC	US Centers for Disease Control and Prevention
CIF	Case investigation form
COP	Community of practice
cVDPV	Circulating vaccine-derived poliovirus
cVDPV1	Circulating vaccine-derived poliovirus type 1
cVDPV2	Circulating vaccine-derived poliovirus type 2
cVDPV3	Circulating vaccine-derived poliovirus type 3
DD	Direct detection
DD-ITD	Direct detection with intratypic differentiation
DDNS	Direct detection by nanopore sequencing
EBS	Event-based surveillance
EMR	Eastern Mediterranean Region
EMRO	Regional Office for the Eastern Mediterranean
EPI	Expanded Programme on Immunization
EQA	External quality assessment
ES	Environmental surveillance
eSurv	Electronic surveillance
eTools	Electronic tools
EUR	European Region
EURO	Regional Office for Europe
EV	Enterovirus
EVS	Enterovirus surveillance
FRR	Financial resource requirements
GCC	Global Commission for the Certification of Poliomyelitis Eradication
GPEI	Global Polio Eradication Initiative
GPLN	Global Polio Laboratory Network
GPLNMS	Global Polio Laboratory Network Management System
GPSAP	Global Polio Surveillance Action Plan
GSL	Global specialized laboratory
HR	Human resource(s)
HSB	Health-seeking behaviour
HQ	Headquarters
IHR	International Health Regulations
IPV	Inactivated poliovirus vaccine
ISS	Integrated supportive supervision
ITD	Intratypic differentiation
IVB	Immunization, Vaccines and Biologicals
iVDPV	Immunodeficiency-associated vaccine-derived poliovirus
KPI	Key performance indicator
KPPI	Key performance and process indicator
LabNets	Laboratory networks
LQMS	Laboratory quality management system
MeaNS	Measles nucleotide surveillance (database)
MoH	Ministry of Health
NCC	National Certification Committee
NGO	Nongovernmental organization
nOPV2	Novel oral polio vaccine type 2
NPAFP	Non-polio acute flaccid paralysis
NPL	National polio laboratories
OB	Outbreak
OBRA	Outbreak response assessment
OPV	Oral polio vaccine
ORPG	Outbreak Response and Preparedness Group
PAHO	Pan American Health Organization
PID	Primary immunodeficiency disorder
POLIS	Polio Information System
PoNS	Poliovirus nucleotide sequence (database)
PT	Proficiency testing
PV	Poliovirus
RCC	Regional Commission for the Certification of Poliomyelitis Eradication
RNA	Ribonucleic acid
RO	Regional office
RRL	Regional reference laboratory
RubeNS	Rubella nucleotide surveillance (database)
QA	Quality assurance
QC	Quality control
SC	Strategy Committee (GPEI)
SEAR	South-East Asia Region
SEARO	Regional Office for South-East Asia
SG	Surveillance Group (GPEI)
SME	Subject matter expert
SOP	Standard operating procedure
STOP	Stop Transmission of Polio
SWG	Small Working Group (GPLN)
TA	Technical assistance
UNICEF	United Nations Children's Fund
VDPV	Vaccine-derived poliovirus
VI	Virus isolation
VPD	Vaccine-preventable disease
WebIFA	Web-based information for action (system)
WHE	WHO Heath Emergencies Programme
WHO	World Health Organization
WPR	Western Pacific Region
WPRO	Regional Office for the Western Pacific
WPV	Wild poliovirus
WPV1	Wild poliovirus type 1

EXECUTIVE SUMMARY

The **Global Polio Surveillance Action Plan (GPSAP) 2025–2026** defines the surveillance activities required to achieve the goals of the Global Polio Eradication Initiative (GPEI) for the interruption of wild poliovirus type 1 (WPV1) transmission and outbreaks of type 2 circulating vaccine-derived poliovirus (cVDPV2). The GPSAP brings together the five surveillance workstreams that collectively function to help guide the polio eradication effort. These include:

- syndromic surveillance for cases of acute flaccid paralysis (AFP) among children younger than 15 years of age, referred to as ***AFP surveillance***;
- surveillance for poliovirus in sewage and wastewater, referred to as ***environmental surveillance*** (ES);
- surveillance for immunodeficiency-associated vaccine-derived poliovirus (iVDPV) among patients with primary immunodeficiency disorders (PIDs), referred to as ***iVDPV surveillance***;
- laboratory testing to provide confirmation and genetic sequencing of polioviruses, provided by the ***Global Polio Laboratory Network***; and
- data and information management that supports reporting detections and monitoring poliovirus surveillance via a centralized repository, referred to as the Polio Information System or ***POLIS***.

Lessons learned from the previous GPSAP 2022–2024 inform changes in the new action plan. This GPSAP also continues to align with and support polio surveillance objectives and activities detailed in the *GPEI Polio Eradication Strategy*, including four key areas.

1. Timeliness of detection

Maximizing the speed of poliovirus detection is critical to launch response efforts that will interrupt transmission. GPSAP 2025–2026 updates key timeliness targets to guide different country contexts.

2. Subnational surveillance quality

National surveillance indicators can mask subnational gaps, creating blind spots and contributing to missed and delayed detections. Subnational gaps must be eliminated through careful monitoring and context-driven solutions.

3. Gender equality

Gender disparities contribute to delays in detection as bias and barriers to care give poliovirus a foothold. Gender equality is a tool for eradication that's best leveraged in collaboration with specialists and local organizations and through the balanced engagement of women's and men's groups.

4. Integration

Joint efforts between the polio surveillance programme and a range of partners to integrate surveillance activities is a step towards the long-term, sustainable transition of polio functions to other health programmes and national health systems as the world nears polio eradication.

A new framework for all countries

The GPSAP 2025–2026 responds to current surveillance challenges, including the recent detection of poliovirus in countries within four regions of the World Health Organization (WHO) that have been certified for polio eradication: the Region of the Americas, the European Region, the South-East Asia Region and the Western Pacific Region. These outbreaks serve as an important reminder that the virus can move anywhere in the world, and therefore ***all countries*** must remain vigilant in their ability to quickly detect importations and emergences and minimize harm within their communities. It also highlights that the eradication effort may benefit from additional guidance and support to polio-free regions and countries to ensure sensitive surveillance systems are maintained for rapid detection.

This GPSAP expands its geographic scope to all countries and introduces a new framework of surveillance standards based on three levels of polio surveillance sensitivity (**Annex A**). In collaboration with WHO regional offices, countries are expected to perform a self-assessment of their poliovirus risk to identify the appropriate level of polio surveillance sensitivity. These three levels vary according to:

- **highly sensitive surveillance** in countries continuously affected by poliovirus, including countries with endemic WPV1 transmission and prolonged cVDPV2 transmission;
- **very sensitive surveillance** in countries with short-term outbreaks (i.e. currently experiencing <12 months of detection), or countries that are at high risk for poliovirus importation or emergence; and
- **sensitive surveillance** in countries at low risk of poliovirus importation or emergence, where surveillance systems must align with standards defined by the Global Commission for the Certification of Poliomyelitis Eradication (GCC).

The framework also sets a foundation for polio surveillance sensitivity as an essential function to support the achievement of GPEI strategic goals and to sustain the global commitment to polio eradication. It has thus been developed in recognition of the responsibility of Member States to achieve certification of wild poliovirus eradication (and cVDPV2 elimination) and maintain eradication indefinitely.

Focus and support for priority countries and territories

The GPEI Surveillance Group (SG) conducted a country prioritization assessment to identify those countries and territories that are most critical to achieving WPV1 eradication and cVDPV2 elimination and to guide the allocation of GPEI resources (**Annex B**). For the GPSAP 2025–2026, 24 countries and territories have been identified as high priority, with 42 additional countries prioritized for focused surveillance strengthening (see **Introduction: Geographies**). Countries and territories may be added to this list over the two-year period to address emerging risks and identified surveillance gaps.

Objectives of the GPSAP 2025–2026

National programmes are advised to work collaboratively with WHO regional offices and global partners to implement, sustain and monitor the objectives and major activities of the GPSAP 2025–2026 (see **Table 1**, next page). These objectives and activities are also provided for all countries to implement and thereby strengthen surveillance sensitivity in consideration of their assessed surveillance sensitivity needs.

Preparing to maintain a sustainable and sensitive polio surveillance system beyond GPEI

Following the approval by the Polio Oversight Board in October 2024 for a three-year extension of the GPEI Strategy (from 2022–2026 to 2022–2029), the GPSAP 2025–2026 also includes a high-level vision of the strategies needed to sustain sensitive surveillance systems as the GPEI strategic goals are achieved. The new framework for polio surveillance sensitivity provides specific standards to address key risks and ensure a continuity of surveillance performance as GPEI-led surveillance activities transition to a different model of governance and accountability.

Implementation and monitoring

The GPSAP 2025–2026 was developed by the GPEI SG, where GPEI partners, WHO regions, and field surveillance and laboratory experts are represented. The SG is tasked with monitoring the progress of GPSAP implementation among GPEI partners, WHO regional offices and national programmes. Key performance indicators (KPIs) are provided as globally recommended targets to support the monitoring of surveillance quality (**Annex C**). Countries are directed to the KPIs for the minimum requirements of a sensitive surveillance system, including the timeliness of detection (**Annex D**). Successful implementation of this action plan, alongside upholding accountability for progress (**Annex E**), will be key to mitigating future risks to maintain a polio-free world.

Table 1. Objectives and major activities of the Global Polio Surveillance Action Plan 2025–2026

Objectives	Major activities
Objective 1. **Enhance and sustain AFP surveillance sensitivity and timeliness**	**1.** Implement targeted activities to identify challenges and solutions to subnational surveillance gaps **2.** Improve timeliness for field activities and specimen transport **3.** Plan and implement systematic surveillance sensitivity and performance assessments **4.** Facilitate building and sustaining a skilled, gender balanced workforce **5.** Integrate AFP surveillance with other disease surveillance systems where appropriate
Objective 2. **Optimize the ES network to contribute to the timely detection of polioviruses**	**1.** Improve and maintain the sensitivity of ES sites **2.** Optimize ES based on country context, with emphasis on high-risk areas **3.** Improve the shipment timeliness and condition of ES samples **4.** Prepare for integration with other wastewater-detectable pathogens **5.** Improve and standardize the ES data pipeline, from collection to use
Objective 3. **Scale up iVDPV surveillance to sustain polio eradication**	**1.** Support and expand iVDPV surveillance in countries with existing systems **2.** Implement iVDPV surveillance in at least five additional at-risk countries across all regions **3.** Ensure iVDPV information system is available with regular and systematic reporting of data to the GPEI **4.** Set up a system for regular coordination with societies for PIDs and immunology networks **5.** Coordinate with research groups on antiviral therapies, monoclonal antibodies and rapid diagnostics
Objective 4. **Maintain and strengthen the integrity, capacity and capability of the Global Polio Laboratory Network**	**1.** Strengthen oversight of quality management systems in all GPLN laboratories **2.** Sustain and strengthen processing capacity in all GPLN laboratories, prioritizing those serving high-priority countries and territories **3.** Continue the assessment of new or adapted methodologies and algorithms and implement after validation, prioritizing laboratories serving high-priority countries and territories **4.** Continue to work with broader laboratory surveillance networks, including other VPDs, and document integration activities **5.** Develop a strategy for the long-term sustainability of core GPLN functions
Objective 5. **Plan for an integrated future while increasing efficiency in data for action**	**1.** Ensure POLIS contains all data elements required for programmatic purposes and activities (including certification) **2.** Make improvements to/modernize regional and country information systems **3.** Strengthen country- and regional-level data management and analytical capacity **4.** Prepare POLIS for a future transfer or integration with other data and information management systems **5.** Increase collaboration with global stakeholders to foster integration, standardization, transparency and inter-regional coordination
Objective 6. **Enhance surveillance management and accountability**	**1.** Develop and track GPSAP implementation in high-priority countries and territories **2.** Monitor surveillance risk and performance in priority countries and territories **3.** Monitor and support the workplan of data systems, GPLN and regions **4.** Monitor and support the integration of polio surveillance activities **5.** Monitor and advocate for sustainable transition in countries that receive GPEI funding for surveillance

AFP = acute flaccid paralysis; ES = environmental surveillance; GPEI = Global Polio Eradication Initiative; GPLN = Global Polio Laboratory Network; GPSAP = Global Polio Surveillance Action Plan; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; PID = primary immunodeficiency disorder; POLIS = Polio Information System; VPD = vaccine-preventable disease.

INTRODUCTION

Poliovirus surveillance is essential for monitoring progress towards interrupting wild poliovirus type 1 (WPV1) transmission and outbreaks of circulating vaccine-derived polioviruses (cVDPVs), for certifying global wild poliovirus (WPV) eradication and vaccine-derived poliovirus (VDPV) elimination, and for ensuring these achievements are maintained to protect a polio-free world.

Syndromic surveillance for acute flaccid paralysis (AFP) among children younger than 15 years of age continues to be the primary approach for detecting poliovirus.[1] It is supplemented by environmental surveillance (ES) to detect poliovirus in sewage and wastewater and by the detection of poliovirus among individuals with primary immunodeficiency disorders (PIDs), referred to as immunodeficiency-associated vaccine-derived poliovirus (iVDPV) surveillance. The Global Polio Laboratory Network (GPLN) supports field surveillance activities by providing laboratory confirmation and genetic sequencing of polioviruses to guide eradication efforts. Data from most surveillance activities are maintained within POLIS (Polio Information System), a centralized global data repository.

HOW TO READ THIS ACTION PLAN

Since 2018, the Global Polio Surveillance Action Plan (GPSAP) has been a tool for strengthening surveillance within high-risk countries that were prioritized for focused programme support because they were critical to the goals of polio eradication.

The **GPSAP 2025–2026** takes a wider frame to provide guidance for all countries. It is organized in three parts.

PART ONE provides a new framework for surveillance sensitivity in all countries according to their risk and in recognition that, with recent detections in polio-free countries, as long as polio exists anywhere, it's a threat to children everywhere.

PART TWO defines focused surveillance strengthening activities for national, regional and global teams to rapidly detect WPV and cVDPVs in priority countries and territories. Other national programmes are encouraged to collaborate with their WHO regional offices to identify the most appropriate activities to strengthen their surveillance system.

PART THREE outlines the levels of polio surveillance sensitivity that will be needed through the end of the GPEI strategy extension to 2029.

Polio surveillance staff and activities conducted across countries, regional offices and global agency partners are part of the Global Polio Eradication Initiative (GPEI). Their collective effort is referred to as the "programme." The GPEI Surveillance Group (SG) supports surveillance activities from the national to the global level and is composed of GPEI partners, regional focal points and experts in field surveillance, laboratory surveillance and information management.

This **Global Polio Surveillance Action Plan (GPSAP) 2025–2026** defines objectives and activities to meet the current challenges confronting polio surveillance – and to prepare for future changes that will be required of all countries as the world nears polio eradication. It builds upon the 2022–2024 GPSAP,[2] which aligned polio surveillance activities with the *GPEI Polio Eradication Strategy 2022–2026* (referred to as "the GPEI Strategy").[3] This GPSAP 2025–2026 carries forward lessons learned that will help to strengthen a spirit of collaboration and cooperation that will be needed as polio surveillance activities are integrated with other disease surveillance systems and transitioned to national governments which, along with agency partners, will work together to uphold the world's commitment to polio eradication.

[1] The focus of AFP surveillance is children <15 years of age but also includes any person of any age with paralytic illness if poliomyelitis is suspected by a clinician.
[2] Global Polio Eradication Initiative (GPEI). Global Polio Surveillance Action Plan 2022–2024. Geneva: World Health Organization; 2022 (https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf, accessed 22 December 2024).
[3] Global Polio Eradication Initiative (GPEI). Polio Eradication Strategy 2022–2026: Delivering on a promise. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/345967, accessed 22 December 2024). In October 2024, the eradication strategy was extended to cover the period from 2022 to 2029.

Context

At the time of this plan, WPV1 continues to be detected in the endemic countries of Afghanistan and Pakistan. Countries that experienced importations of WPV1 – Malawi and Mozambique in 2021 and 2022, respectively – have successfully closed their outbreaks. Wider use of the more genetically stable novel oral poliovirus vaccine type 2 (nOPV2) has led to a decline in cVDPV2 emergences; however, cVDPV2 continues to be detected in 26 countries in three of six regions of the World Health Organization (WHO), the majority in the African Region. The continued annual detection of ~60 orphan viruses in 2022 and 2023,[4] as well as 25 detections in 2024 (as of August 2024), highlight gaps in surveillance that may exist within a country or across countries. In addition, recent polio events and outbreaks in Canada, Israel, the United Kingdom and the United States of America have emphasized to the world that as long as polio exists anywhere, it is a threat to children everywhere.

The previous GPSAP (2022–2024) translated the objectives and priorities of the GPEI Strategy into four cross-cutting themes that guided surveillance activities in 30 high-priority countries: timeliness of detection, subnational surveillance quality, gender and integration. These four themes remain as focus areas for the current plan – and while successes have been identified, challenges remain.

Timeliness of detection has helped define key target indicators for AFP surveillance performance, which has led to improvements: roles and responsibilities are clearer, the number of laboratories with sequencing capacity has increased, and root causes for delays have been identified for corrective action. Despite this progress, the international shipment of stool specimens and sewage samples continues to present challenges. Additionally, the complexity and challenges of validating new direct detection (DD) methodologies have affected rollout timelines envisioned in the previous GPSAP.

Subnational surveillance quality has improved with in-depth analyses (e.g. desk and field reviews) to identify challenges, guide activities and monitor performance. Capacity-building efforts have led to more training modules and cascade trainings, as well as to the development of updated global guidelines that standardize approaches to surveillance activities. However, gaps in subnational areas of key countries persist as evidenced by orphan viruses in Central and West African countries and through the uneven implementation of surveillance activities, such as routinely conducting active surveillance visits and reprioritization of sites.

Gender mainstreaming within surveillance through activities such as sex-disaggregated analyses has become normalized in the programme, but it is unclear how results are and should be used to address gender-related differences when observed (**Annex F**). Gender equality in the work environment and organizational culture are being promoted by the GPEI through the Gender Mainstreaming Group through midterm reviews and evaluation exercises.

Integration of polio surveillance with other vaccine-preventable disease (VPD) surveillance systems has shown mixed success. Coordination at the country and regional levels among polio, VPD and health emergencies groups has increased. However, the lack of guidance to national programmes on the basic principles of integration has led to varying approaches and degrees of success. Currently, the programme faces a credible risk of losing polio-dedicated surveillance officers and laboratory focal points. Furthermore, the shift in 2022 from GPEI funding for routine polio surveillance activities to WHO base budgets for integrated surveillance activities may have contributed to a decline in polio surveillance performance. In light of this, the SG now has a dedicated surveillance contingency budget to support activities in the most pressing areas (**Annex G**). Looking ahead, future owners of global polio surveillance have yet to be identified to sustain sensitive polio surveillance in the long term.

[4] From the extent of divergence from the originating type 2 vaccine strain, orphan viruses represent at least 1.5 years of undetected circulation.

Purpose

The GPSAP 2025–2026 details activities and efforts required to achieve and maintain a polio surveillance system sensitive enough to detect any polioviruses transmission anywhere in the world and to facilitate the achievement of GPEI Strategy Goals One (WPV1 eradication) and Two (cVDPV2 elimination), referred to as the "strategic goals." Recognizing lessons learned from the previous GPSAP, new directional changes are proposed in this current GPSAP.

Extended geographic scope: Recent detections of poliovirus in previously polio-free countries have made clear the importance of addressing the polio surveillance needs of ***all*** countries. While this plan focuses on high-priority countries and territories, it also introduces a **new framework** to guide all countries toward the level of polio surveillance sensitivity needed to detect polioviruses until WPV1 eradication and cVDPV2 elimination are globally certified. This wider frame lays the groundwork for protecting these achievements and upholding the world's commitment to polio eradication while also addressing newer risks, including iVDPVs (**Annex H**).

Improving the timeliness of laboratory results: Expanding sequencing capacity within the GPLN and minimizing lengthy delays caused by multiple international shipments will continue to be prioritized in parallel with the ongoing validation of new DD methods. The indicators for timeliness of detection have been re-examined and revised to reflect these efforts.

Preparing for change: The potential loss of sensitivity in the transition from the GPEI budget for surveillance activities to the WHO base budget for integrated surveillance makes clear that the programme must put concerted effort towards planning for broad changes that will follow WPV1 eradication and cVDPV2 elimination. This plan includes high-level guidance to ensure essential surveillance activities can be sustained after the GPEI achieves its strategic goals.

Focused action plan: Previous GPSAPs were a hybrid of action plans and surveillance guidance. Given recent publications of the global AFP surveillance, ES and iVDPV surveillance guidelines, this action plan focuses on actions and activities, with additional resources referenced for further guidance (**Annex I**).

Objectives

There are six mutually supportive objectives of the GPSAP 2025–2026.

1. **Enhance and sustain AFP surveillance sensitivity and timeliness**
2. **Optimize the ES network to contribute to the timely detection of polioviruses**
3. **Scale up iVDPV surveillance to sustain polio eradication**
4. **Maintain and strengthen the integrity, capacity and capability of the GPLN**
5. **Plan for an integrated future while increasing efficiency in data for action**
6. **Enhance surveillance management and accountability**

Geographies

Polio surveillance sensitivity for all countries

All countries are responsible for achieving certification of poliovirus eradication (and cVDPV elimination) and maintaining eradication indefinitely to secure a polio-free world. This GPSAP introduces a framework with three levels of polio surveillance sensitivity required for the rapid detection of all polioviruses (**Fig. 1**).

Fig. 1. Levels of surveillance sensitivity required by country risk profile

*Countries currently (defined as today to previous six months) experiencing <12 months of poliovirus detection (WPV, cVDPV).
cVDPV = circulating vaccine-derived poliovirus; WPV = wild poliovirus.
Source: WHO.

Part One: Polio surveillance sensitivity for all countries and **Annex A** provide further criteria and guidance. National programmes are to work in collaboration with their WHO regional office to *perform an assessment* of their poliovirus risk and identify the required level of polio surveillance sensitivity needed. The framework also sets the foundation for polio surveillance sensitivity that will also be needed in the future, as described in **Part Three**.

Countries and territories identified for GPEI support

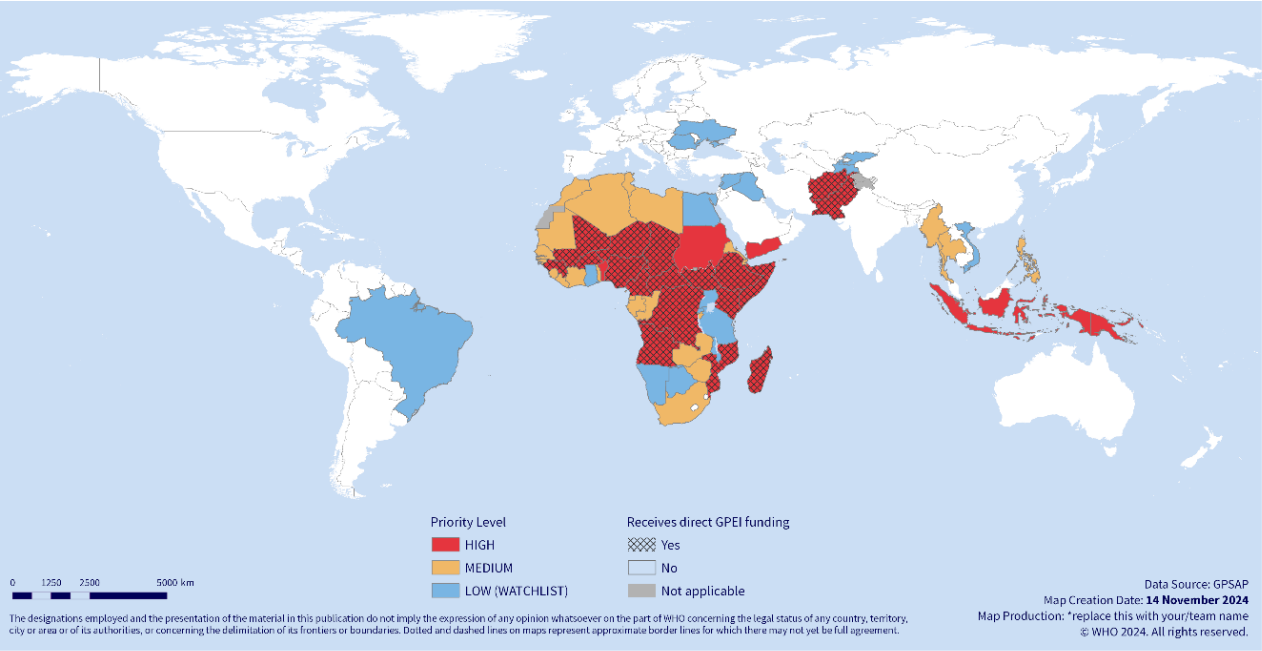
External support will be necessary for some countries and territories to achieve their required levels of surveillance sensitivity to achieve GPEI strategic goals. The SG identified a subset of countries and territories for support, which are the **primary focus** of this action plan (**Part Two**). GPEI surveillance resources will be targeted to these countries and territories, particularly to those categorized as *high priority* where GPEI-focused support will be critical to achieve WPV1 eradication and cVDPV2 elimination (**Table 2** and **Fig. 2**). *While priority countries and territories are set for the duration of the GPSAP 2025–2026,* countries and territories may be added to the high-priority list as critical risks and gaps in surveillance are identified. **Annex B** provides details on how priority status was identified and what types of SG support will be available according to priority.

Table 2. List of countries and territories prioritized by the GPEI Surveillance Group

Status	Regions and countries
High (24)	**AFR**: Angola, Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Ethiopia, Guinea, Kenya, Madagascar, Mali, Mozambique, Niger, Nigeria, South Sudan; **EMR**: Afghanistan, occupied Palestinian territories, Pakistan, Somalia, Sudan, Yemen; **SEAR**: Indonesia; **WPR**: Papua New Guinea.
Medium (25)	**AFR**: Algeria, Burundi, Congo, Côte d'Ivoire, Equatorial Guinea, Eritrea, Gabon, Gambia, Guinea-Bissau, Liberia, Mauritania, Senegal, Sierra Leone, South Africa, Togo, Zambia, Zimbabwe; **AMR**: Haiti; **EMR**: Djibouti, Libya, Morocco, Tunisia; **SEAR**: Myanmar, Thailand; **WPR**: Philippines.
Low (watchlist) (17)	**AFR**: Botswana, Ghana, Malawi, Namibia, Rwanda, Uganda, United Republic of Tanzania; **AMR**: Brazil; **EMR**: Egypt, Iraq, Lebanon, Syrian Arab Republic; **EUR**: Kyrgyzstan, Romania, Tajikistan, Ukraine; **WPR**: Viet Nam.
Low	All countries not included in the previous three categories.

AFR = African Region; AMR = Region of the Americas; EMR = Eastern Mediterranean Region; EUR = European Region; SEAR = South-East Asia Region; WPR = Western Pacific Region.

Fig. 2. GPEI Surveillance Group's prioritized countries and territories



Source: WHO.

Timeline

This GPSAP covers the years 2025 and 2026. A review of the implementation of the GPSAP 2025–2026 is planned for the latter half of 2026, at which time the GPSAP will be adapted to support the GPEI Strategy beyond 2026.

The GPSAP 2025–2026 also provides strategic details to prepare national governments, country and regional offices of the WHO and the United Nations Children's Fund (UNICEF), and agency partners for a future period after the achievement of GPEI strategic goals when global polio surveillance leadership and management will shift from the current partnership to a different model of integration, collaboration, governance and accountability.

Audience

The GPSAP 2025–2026 was developed by the GPEI Surveillance Group (SG) which includes members from WHO headquarters and regional offices, the US Centers for Disease Control and Prevention (CDC), the Bill & Melinda Gates Foundation and UNICEF.

The audience for this plan includes individuals, countries and organizations engaged in polio surveillance activities. It is also informative for those working in the broader eradication efforts that include: national polio and immunization programme managers, staff and field surveillance officers; country and regional focal points for polio eradication at the WHO and UNICEF; immunization and health emergency programmes; polio eradication and immunization technical advisory bodies; nongovernmental organizations and civil society groups engaged in polio surveillance activities; and GPEI agency partners and consultants.

PART ONE: POLIO SURVEILLANCE SENSITIVITY FOR ALL COUNTRIES

Sensitive polio surveillance systems are integral to both achieving GPEI strategic goals and sustaining a polio-free world in the long term. However, the degree of sensitivity needed within countries will differ based on a country's poliovirus risk profile.

To guide countries on critical surveillance activities that help to maintain their ability to detect polioviruses, the programme has developed a new framework that defines three levels of sensitivity for polio surveillance systems. National programmes should work with WHO regional offices to assess their required level of sensitivity and identify activities in **Part Two** that should be implemented to strengthen their surveillance systems. **Annex A** also summarizes the top five risks and key mitigation strategies for each level of surveillance sensitivity.

Highly sensitive surveillance

Countries that are continuously affected by poliovirus require *highly sensitive surveillance* to detect ongoing transmission. This entails a well-coordinated and operating active and passive AFP surveillance system with supplemental strategies like community-based surveillance (CBS) where appropriate. AFP surveillance should be supplemented by an optimized ES system and iVDPV surveillance system (if warranted). These surveillance systems in turn are supported by the GPLN and POLIS to ensure poliovirus in humans or the environment are detected within 35 days (in countries with full laboratory capacity) or 46 days (in countries without full laboratory capacity). Regular monitoring of surveillance performance should be conducted to guide implementation of corrective actions (see **Objectives 1–5, Annex C**).

Countries continuously affected by poliovirus

- Endemic WPV1 transmission
- Currently* experiencing ≥12 months of continuous WPV or cVDPV (any type) detections
- Have not gone ≥12 continuous months without WPV or cVDPV (any type) detection

*Defined as today to previous six months.

It will be important for countries to document surveillance enhancements, analyses and implementation of corrective actions to provide evidence that the surveillance system does not have gaps that would permit silent or missed poliovirus transmission, or delayed detection.

Very sensitive surveillance

Countries with short-term outbreaks (i.e. <12 months of a poliovirus detection) or countries at high risk for poliovirus importation or emergence will require *very sensitive surveillance* to detect poliovirus. These countries must remain vigilant due to ongoing transmission or a high probability of virus importation (e.g. neighbour of outbreak-affected country) or emergence (e.g. low population immunity).

The core and supplemental surveillance strategies are similar to *highly sensitive surveillance*; however, different strategies

Countries with short-term outbreaks or at high risk for poliovirus importation or emergence

- Currently* experiencing <12 months of a poliovirus detection (WPV, cVDPV)
- A shared border with a country continuously affected by poliovirus (i.e. requiring highly sensitive surveillance)
- Population movement from high-risk poliovirus transmission areas
- Chronic national or subnational poliovirus immunity gaps
- Countries that self-identify as high-risk for poliovirus transmission

*Defined as today to previous six months.

may be needed, such as temporary ES sites, ad hoc active AFP case searches in facilities and communities (including countries without AFP surveillance), and the prioritization of samples from outbreak-affected or high-risk areas for laboratory testing.[5] Documenting enhancements, analyses and implementation of corrective actions remains critical to provide evidence that gaps do not persist. This will also be an important source of documentation for outbreak response assessments (OBRAs) in outbreak-affected countries.

Sensitive surveillance

Countries at low risk of poliovirus importation or emergence

- Does not meet any previously listed criteria

At a minimum, all countries should be able to detect poliovirus through a *sensitive polio surveillance system* that is consistent with global certification standards in detecting poliovirus. This may represent a mix of strategies that include passive and active AFP surveillance which may be supplemented by ES. Other alternative means of poliovirus detection may be used including enterovirus surveillance (EVS), acute flaccid myelitis (AFM) surveillance, wastewater surveillance and event-based surveillance (EBS).

Despite their low risk for poliovirus importation or emergence, countries need to maintain *sensitive surveillance* as risks for polio will persist after the global certification of WPV1 eradication and cVDPV elimination. A pressing risk in some countries at present is a poliovirus containment breach due to the presence of polio essential facilities. The risk of a breach can be mitigated,[6] but only sensitive surveillance can quickly identify a breach.

[5] Global Polio Eradication Initiative (GPEI). Interim Quick Reference on Strengthening Polio Surveillance during a Poliovirus Outbreak. Geneva: WHO; 2021 (https://polioeradication.org/wp-content/uploads/2021/12/Quick-Reference_Strengthening-Surveillance-during-Poliovirus-Outbreaks_24-March-2021.pdf, accessed 22 December 2024).

[6] The WHO Regional Office for Europe provides guidance for a polio outbreak simulation exercise (POSE) to help Member States prepare for responding to a poliovirus risk, such as a containment breach. Available at: https://who-sandbox.squiz.cloud/en/health-topics/communicable-diseases/poliomyelitis/activities/polio-outbreak-simulation-exercises-pose#:~:text=A%20polio%20outbreak%20simulation%20exercise,of%20the%20International%20Health%20Regulations (accessed 22 December 2024).

PART TWO: FOCUSED SURVEILLANCE STRENGTHENING FOR PRIORITY COUNTRIES AND TERRITORIES

National programmes, WHO regional offices and global partners will work collaboratively to implement, sustain and monitor surveillance activities to ensure success in stopping WPV1 transmission and cVDPV2 circulation. The following objectives define the surveillance activities that will be prioritized under the GPSAP 2025–2026.

Annex B provides details on the GPSAP 2025–2026 prioritization scheme for countries and territories.

- **Objective 1**: Enhance and sustain AFP surveillance sensitivity and timeliness
- **Objective 2:** Optimize the ES network to contribute to the timely detection of polioviruses
- **Objective 3:** Scale up iVDPV surveillance to sustain polio eradication
- **Objective 4:** Maintain and strengthen the integrity, capacity and capability of the GPLN
- **Objective 5**: Plan for an integrated future while increasing efficiency in data for action
- **Objective 6:** Enhance surveillance management and accountability

Activities, tasks, processes and procedures in support of these objectives may be modified or adjusted to address variability in national programmes and regional offices.

Acute flaccid paralysis (AFP) surveillance

Objective 1. Enhance and sustain AFP surveillance sensitivity and timeliness

To prepare for global certification of WPV1 eradication and cVDPV2 elimination, the programme must be confident that AFP surveillance is sensitive down to the lowest administrative levels. Financial and technical support will likely be needed in priority countries and territories to ensure sensitive AFP surveillance systems that can be sustained.

Vision: By the end of 2026, countries and territories conducting AFP surveillance must demonstrate a sensitive system by closing any remaining subnational gaps, achieving effective timeliness of detection, and making progress towards the integration of AFP surveillance with other disease surveillance systems.

Table 3. Major activities and key performance and process indicators for Objective 1

Major activities	Key performance and process indicators
1. Implement targeted activities to identify challenges and solutions to subnational surveillance gaps	• ≥80% of districts with ≥100 000 population under 15 years of age achieve the annualized NPAFP rate target per guidelines. • ≥80% of districts with ≥5 AFP cases meet 80% target for stool adequacy. • ≥80% of high-priority countries and territories routinely meet or exceed AFP surveillance quality key performance indicator targets (**Annex C**).
2. Improve timeliness for field activities and specimen transport	• ≥80% of high-priority countries and territories routinely meet or exceed AFP surveillance timeliness key performance indicator targets (**Annex C**).

AFP = acute flaccid paralysis; NPAFP = non-polio acute flaccid paralysis.

Table 3 (continued)

Major activities	Key performance and process indicators
3. Plan and implement systematic surveillance sensitivity and performance assessments	• ≥75% of high-priority countries and territories have completed a field review by the end of 2026. • All high-priority countries and territories have a surveillance performance improvement plan and report on implementation quarterly to the region. • Global guidance developed for countries to document systematically the sensitivity and performance of AFP surveillance system.
4. Facilitate building and sustaining a skilled, gender-balanced workforce	• All high-priority countries and territories have conducted trainings for surveillance officers and AFP focal points at least once by the end of 2026. • All high-priority countries and territories have surveillance guidelines that are aligned with *Global AFP Surveillance Guidelines.*
5. Integrate AFP surveillance with other disease surveillance systems where appropriate	• ≥75% of high-priority countries and territories have plans to fully integrate AFP surveillance with the national surveillance system AND documentation of activities that have been integrated by the end of 2026.

AFP = acute flaccid paralysis.

Major Activity 1. Implement targeted activities to identify challenges and solutions to subnational surveillance gaps

National AFP surveillance indicator targets should always be met; however, national-level indicators can also mask subnational performance issues and create blind spots for the programme. The reasons for subnational gaps vary and can be influenced by multiple factors that include special populations, urbanization, political dynamics, terrain, population movement and security risks. Subnational gaps must be identified and understood so that targeted solutions can be tailored to the local context and implemented.

Subnational AFP surveillance sensitivity is emphasized in the key performance indicators (KPIs) by focusing on the proportion of lowest administrative levels that meet the non-polio AFP (NPAFP) rate and stool adequacy performance targets (see panel at right). Recent detections of orphan viruses suggest potential subnational gaps in surveillance (see text panel next page). *Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication* (referred to as the "*Global AFP Surveillance Guidelines*") provides activities to identify and address subnational gaps, as well as next steps when orphan viruses are detected.[7] Guidance is also available for hard-to-reach and special populations,[8] and a community-based

Lowest administrative level: What does this mean?

In this action plan, the phrase "lowest administrative level" has been used to account for the variety of names and boundaries used for areas within a country that may include *provinces*, *states*, *counties*, *districts*, *wards* and *blocks*, among other names.

For national programmes and regional offices, the term should be interpreted as the lowest administrative level in which an indicator can feasibly be calculated and is informative. Population size, and in particular small populations, will often dictate the lowest administrative level.

For global monitoring and reporting, subnational indicators will continue to be assessed at the administrative level 2, referred to as the "district level."

[7] Global Polio Eradication Initiative (GPEI). Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication. Geneva: World Health Organization; 2024 (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024).
[8] Global Polio Eradication Initiative (GPEI). Guidelines for Implementing Polio Surveillance in Hard-to-Reach Areas and Populations. Geneva: World Health Organization; 2020 (https://polioeradication.org/wp-content/uploads/2020/10/Guidelines-polio-surveillance-H2R-areas.pdf, accessed 22 December 2024).

polio surveillance toolkit is posted online.[9] Guidance on the process for conducting comprehensive surveillance audits will be developed.

Achieving the ≥80% target at the subnational level should not lead to complacency, as the remaining <20% is critical for closing all gaps. National programmes may consider increasing target thresholds to be higher than the global standards while they actively work to explore and address impediments to surveillance sensitivity for areas or activities that failed to meet the indicator.

A matter of equity: Understanding communities, not only lowest administrative levels

Surveillance analyses and interventions are often aimed at administrative levels, yet high-risk communities and special populations are widespread and rarely confined by administrative boundaries.

Developing effective, targeted solutions to close surveillance gaps within these communities begins by collecting data to identify the specific issues that increase their vulnerability to polio. Understanding the health-seeking behaviour of families will also help in expanding the AFP surveillance network to ensure that the health of high-risk communities is prioritized by the programme.

Active surveillance must be a prioritized field activity. Active surveillance networks need to be reviewed and updated every six months, as reviews offer opportunities to identify and adapt to changes in the reporting network (e.g. shift in special populations, new/closed facilities or sites, security concerns). Attention should be focused in national and provincial capitals where specialized medical facilities that care for paralytic patients are often located and where the programme faces a higher risk of poliovirus transmission due to high population density and movement. In instances where active surveillance has been of suboptimal quality, supportive supervision and monitoring by site priority should be conducted. Electronic tools, such as the eSURV system and integrated supportive supervision (ISS) in the African Region, may facilitate the tracking of active surveillance visits as part of a real-time online surveillance monitoring platform.

The *Global AFP Surveillance Guidelines* and *Best Practices in Active Surveillance for Polio Eradication* provide recommendations to improve active surveillance and reporting networks.[10] Guidance on conducting active surveillance in capital cities (both national and lower administrative units) will be developed.

Relevance of orphan viruses to polio surveillance

Orphan viruses highlight gaps in surveillance that can be attributed to a number of possible causes that include missing population subgroups in surveillance activities, poor AFP case reporting, delayed AFP case investigation and inadequate stool specimen collection.

Wherever they are detected, orphan viruses should trigger an in-depth assessment of surveillance performance, even if performance indicators are being met. Between 2022 and 2024, approximately 74% of 140 orphan viruses were most closely linked to viruses previously detected within the same country (mostly in Chad, Nigeria and Yemen), and 26% were most closely matched to viruses in neighbouring countries. More concerning is the detection of eight extreme orphan viruses (with at least 2.5 years of undetected circulation), which suggests gaps that could endanger progress toward cVDPV2 elimination (GPEI Strategy Goal Two).

[9] Global Polio Eradication Initiative (GPEI). Community-based polio surveillance toolkit (website). Geneva: World Health Organization; 2023 (https://sites.google.com/view/toolkit-for-polio-cbs, accessed 22 December 2024).
[10] Global Polio Eradication Initiative (GPEI). Best practices in active surveillance for polio eradication. Geneva: World Health Organization; 2018 (https://polioeradication.org/wp-content/uploads/2018/12/Best-practices-in-active-surveillance-for-polio-eradication.pdf, accessed 22 December 2024).

Activity 1 tasks

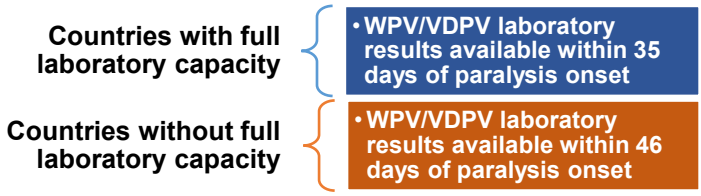
- ✓ Conduct surveillance reviews to identify gaps at the subnational level and target activities to address these gaps.
- ✓ Ensure the active surveillance network is reviewed and updated every six (6) months to identify possible missed special populations and areas.
- ✓ Monitor active surveillance visits by site priority.
- ✓ Develop guidance for conducting comprehensive surveillance audits.
- ✓ Develop guidance for conducting active surveillance in capital cities.

Major Activity 2. Improve timeliness for field activities and specimen transport

The timeliness of AFP surveillance activities – from notification, investigation and specimen collection in the field through specimen transport and laboratory testing – is critical to maximize the speed of poliovirus detection and quickly trigger response efforts to interrupt transmission.

The GPEI Strategy set a target for ***all polioviruses*** to be reported within 35 days of paralysis onset for AFP cases. Countries with full laboratory capacity (i.e. virus isolation [VI], intratypic differentiation [ITD] and sequencing) can achieve this target; however, logistical challenges to shipping specimens internationally to WHO-accredited laboratories became evident for countries without full laboratory capacity. For these countries, the GPSAP has set a second operational target for all polioviruses to be reported within 46 days of paralysis onset for AFP cases (**Fig. 3a**).

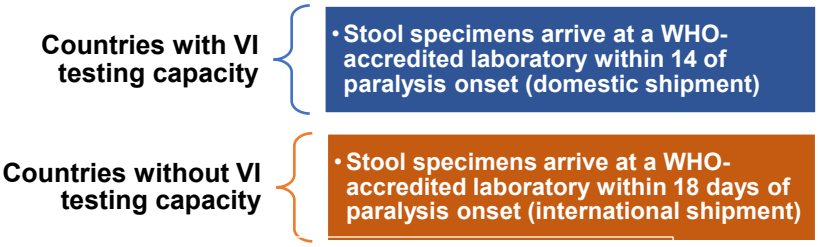
Fig. 3a. Timeliness target based on laboratory capacity



VDPV = vaccine-derived poliovirus; WPV = wild poliovirus.
Source: WHO.

The GPSAP also sets targets for the *timeliness of optimized field and shipment* indicator for ***all samples*** to arrive at a WHO-accredited laboratory based on domestic laboratory capacity (**Fig. 3b**). (See **Objective 4: Laboratory surveillance** for efforts to improve timeliness of obtaining laboratory results.)

Fig. 3b. Timeliness target of optimized field and shipment activities



VI = virus isolation; WHO = World Health Organization.
Source: WHO.

Obstacles encountered throughout the process require different kinds of interventions to ensure timely detection of poliovirus; therefore, understanding the specific reasons for delays and identifying effective solutions is critical. Refer to the *Global AFP Surveillance Guidelines* for potential reasons for delays and corrective measures.[11] Indicators are available to monitor the timeliness of each step (**Annex C**), as well as further details on timeliness (**Annex D**).

[11]Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication. Geneva: World Health Organization; 2024 (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024).

The health-seeking behaviour (HSB) of caregivers of children with AFP is essential to understand as HSB directly affects how quickly cases are identified by the surveillance system (i.e. case notification). It should also be used to guide a re-assessment of the surveillance reporting network. Therefore, collecting HSB data of all AFP cases, reviewing past health encounters for missed opportunities for notification, and engaging with relevant partners to understand barriers to healthcare access are necessary steps to identify solutions that will improve timeliness.[12]

Specimen transport has also contributed to delays in detection and response. To mitigate these delays, alternative domestic and international transportation methods and routes should be explored, including opportunities to integrate specimen shipment with other programmes and to avoid batching of specimens. Domestic transport delays to WHO-accredited laboratories should be distinguished from international transport and examined closely. Securing shipping contracts with several couriers can help reduce delays.[13] Regional offices should also support countries by identifying alternative transport and testing laboratories to avoid double shipments,[14] in the event of shipping constraints or excessive workload at the designated testing laboratory. Electronic tracking tools of stool specimens can be used to effectively isolate the causes behind stool shipment delays.

Where specimen shipment support is provided by nongovernmental organizations such as Village Reach,[15] plans should be developed to transition these activities to the government. Impact analyses of activities should be conducted at six months and one year after transition.

Activity 2 tasks

- ✓ Identify and address reasons for delays at the subnational level through every step of the surveillance process, from onset of paralysis to results from the laboratory.
- ✓ Improve the timeliness of case notification by understanding HSB and improving the collection and utilization of HSB data to reassess the reporting network.
- ✓ Improve the timeliness of specimen transport; distinguish domestic transport delays and challenges from international transport.

Major Activity 3. Plan and implement systematic surveillance sensitivity and performance assessments

In the final stages of polio eradication, the programme must embrace a systematic and comprehensive approach to assessing AFP surveillance sensitivity rather than merely adhering to a narrow reliance on the certification-standard indicators. The thoroughness of this approach must include not only reviewing performance but also developing a surveillance strengthening plan, monitoring the implementation of corrective measures and taking further action as needed.

[12] Refer to **Annex 9** of the Global AFP Surveillance Guidelines (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024).
[13] Refer to pp 24, 93 of the Global AFP Surveillance Guidelines (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024).
[14] Double shipment refers to the need to ship specimens to two international laboratories to complete poliovirus testing: the first laboratory to perform VI and ITD and then a second laboratory to perform sequencing.
[15] See Lab Sample Transport for Polio Eradication on the Village Reach website (https://www.villagereach.org/project/polio-laboratory-sample-transport, accessed 22 December 2024).

To support and assess surveillance sensitivity, national programmes should:

- review national and subnational surveillance performance indicators and investigate areas of low performance on a monthly basis;
- plan and conduct internal surveillance reviews annually and external surveillance reviews every two (2) years, at a minimum. These may include: annual comprehensive surveillance audits, desk and/or field reviews, annual regional risk assessments and OBRAs. Reviews should be integrated with other VPDs with the aim to complete 100% of the planned desk and field reviews. Regions should track country progress in implementing the recommendations from these surveillance performance reviews on a quarterly basis and report the status to the SG;
- develop surveillance performance improvement plans to monitor and follow up on the implementation of recommendations to address identified gaps; and
- participate in performance assessments led by the regional and/or global levels to ensure local knowledge is used to interpret national and subnational results.

To obtain a more **accurate and comprehensive understanding of AFP surveillance sensitivity and performance**, national programmes should systematically document detailed outcomes from each assessment noted above. Moreover, the document should also include details such as stool specimen quality evaluation, timeliness of activities, process issues such as completeness of reports and active surveillance visits, supportive supervision, case validation and/or verification, and follow-up steps when orphan viruses are detected. The development and availability of a global guidance document, planned for 2025, will help standardize comprehensive documentation across countries performing AFP surveillance.

Detecting AFP in *all* children

Mainstreaming gender in polio surveillance activities and interventions is essential to achieving a polio-free world. While progress has been made to routinely assess and detect any differences, **Annex F** refocuses the need to use analytical findings to take corrective action.

Activity 3 tasks

- ✓ Review national and subnational surveillance KPIs regularly, at least on a monthly basis by countries.
- ✓ Plan and conduct annual internal and biennial external surveillance reviews.
- ✓ Develop surveillance performance improvement plans to address identified gaps.
- ✓ Develop global guidance for documenting the comprehensiveness of AFP surveillance sensitivity.

Major Activity 4. Facilitate building and sustaining a skilled, gender-balanced workforce

A knowledgeable, skilled, gender-balanced workforce is essential for a well-functioning AFP surveillance system. It is also critical to ensuring the sustainability of AFP surveillance within an integrated VPD or other disease surveillance system.

Two-year national plans for capacity-building activities will be developed in coordination with regional offices, which should share the training materials noted below to better equip national programmes in building and sustaining a skilled, gender-balanced workforce.

Global AFP Surveillance Guidelines

Updated guidelines will be published in 2025 to reflect revisions to activities and indicators presented in this action plan. Regional and national AFP surveillance guidelines should be updated thereafter to ensure alignment.

Comprehensive AFP surveillance trainings for all surveillance officers and AFP focal points should be included in the national plan and conducted every two years. Especially with staff turnover and competing priorities, new staff and refresher trainings are vital to a surveillance system. Trainings should be integrated with other VPDs and priority diseases. Local solutions to sustaining a skilled, gender-balanced workforce should also be explored. The knowledge from these trainings should flow in a cascading way from the national to the subnational levels to sensitize healthcare workers and community-based volunteers.

Training materials to aid in capacity-building are available. An *AFP Surveillance Training* package with online training modules is now available for GPEI partners via the iLearn platform.[16] Additional surveillance materials for in-person trainings are also available.[17] It is recommended that these training materials be broadly distributed. A community-based surveillance (CBS) toolkit is available online in both English and French.[18]

Removing gender-related barriers through skilled collaboration

Gender-related barriers in the community and within the polio surveillance programme adversely affect the ability to quickly act. Surveillance programmes at the field level are at the front line to lead efforts to improve in female engagement within the community (e.g. female caregivers), among community members (e.g. volunteers, providers), and in the programme's work environment.

To be successful and sustainable, efforts must be collaborative and supported by key representatives (e.g. programme managers, gender specialists, community leaders and balanced engagement of local women's and men's organizations). While progress is underway, more remains to be done. Refer to the *Global AFP Surveillance Guidelines* for more information.

Activity 4 tasks

- ✓ Develop two-year country plans for capacity-building activities in coordination with regional offices.
- ✓ Conduct comprehensive AFP surveillance trainings for all surveillance officers and AFP focal points.
- ✓ Ensure the AFP Surveillance Training package and the online training modules are available to regional and national programmes.
- ✓ Update regional and national AFP surveillance guidelines to ensure alignment with the updated 2025 *Global AFP Surveillance Guidelines*.

Major Activity 5. Integrate AFP surveillance with other disease surveillance systems where appropriate

The integration of polio activities with other disease surveillance systems is a key objective of the GPEI Strategy. To sustain AFP surveillance activities after achieving polio-free status, many countries have begun integrating polio activities into their broader infrastructures.

[16] Access the WHO learning portal (iLearn) online: https://who.csod.com/client/who/default.aspx (accessed 22 December 2024).
[17] Access the surveillance resources for polio eradicators on the GPEI Resource Hub: https://polioeradication.org/resource-hub/?rh_tools=surveillance-resources (accessed 22 December 2024). Email requests for training materials can be sent to: polio_info@who.int.
[18] Access the community-based polio surveillance toolkit online: https://sites.google.com/view/toolkit-for-polio-cbs (accessed 22 December 2024).

Full integration of AFP surveillance with other health surveillance systems should be planned by national programmes, working with Ministries of Health (MoH) and with the support of WHO. Active surveillance visits and tools, AFP surveillance trainings, assessments (desk and field reviews), and supportive supervision and supervisory tools can be modified to incorporate other disease surveillance activities. Before, during and upon completion of integration, surveillance performance should be monitored to ensure AFP surveillance sensitivity has not been compromised. Subnational performance indicators should be tracked and monitored, and interventions implemented to improve performance, if necessary. Furthermore, regional and global partners should support countries in conducting integrated surveillance trainings and assessments such as desk and field reviews (e.g. updating and sharing global templates) or Expanded Programme on Immunization (EPI) reviews.

Intermediate transition to sustain polio essential functions, including AFP surveillance

Experience from polio transition efforts over the last decade show that countries with weak and vulnerable health systems will continue to require support for surveillance functions. "Intermediate transition," where partners continue to provide technical and financial support to critical functions until governments are ready to assume full responsibility, will protect against backsliding on eradication gains. The degree, scope and nature of this support will vary. Some countries may need primarily technical support from WHO and partners or may be able to independently finance or co-finance certain functions, whereas other countries may need to rely more heavily on partner support, both technically and financially.

For countries that receive GPEI funding for surveillance, it will be important for GPEI partners to advocate with MoHs to ensure sustainable funding while maintaining high-quality AFP surveillance. Areas of convergence should be identified between AFP and VPD surveillance to support integration after WPV1 eradication and while preparing for global cVDPV2 elimination (see **Part Three**). Specific focus should be given to Afghanistan and Pakistan given the level of GPEI support received to interrupt WPV1 transmission.

Activity 5 tasks

- ✓ Develop plans to fully integrate AFP surveillance with other health surveillance systems.
- ✓ Monitor AFP surveillance performance at subnational levels before, during and after completion of integration to ensure surveillance sensitivity is not compromised.

Accountability for implementing each of the tasks at the national, regional/subregional and global levels is detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

Environmental surveillance (ES)

Objective 2. Optimize the ES network to contribute to the timely detection of polioviruses

Well-implemented environmental surveillance (ES) contributes significantly to improving the overall sensitivity of polio surveillance. To provide coverage and increase sensitivity, ES must be optimized by actively managing sampling sites in accordance with the *Field Guidance for the Implementation of Environmental Surveillance for Poliovirus* (referred to as "*Global ES Field Guidance*").[19]

Vision: By the end of 2026, the programme will make significant progress towards the optimization of the global ES network. To guide this work, the programme will conduct an analysis of the global ES footprint. The GPEI will also explore opportunities for integration with other wastewater surveillance programmes to ensure the long-term sustainability of polio ES.

Future guidance on polio and wastewater surveillance

As the GPEI advances its integration of polio activities into other health systems, the programme will define successful polio ES in the context of multi-pathogen wastewater surveillance.

This GPSAP, however, focuses on ES for poliovirus surveillance per the *Global ES Field Guidance* and may not be relevant for countries that include polio as a part of their broader wastewater surveillance programme.

Table 4. Major activities and key performance and process indicators for Objective 2

Major activities	Key performance and process indicators
1. Improve and maintain the sensitivity of ES sites	• ≥80% of environmental sites reach an EV detection rate of ≥50% over 12 months. • ≥80% of underperforming sites (<50% EV detection rate over 12 months) are reviewed within 6–12 months, and corrective actions are taken. • All high-priority countries and territories conduct refresher trainings every year.
2. Optimize ES based on country context, with emphasis on high-risk areas	• ≥75% of high-priority countries and territories meet updated minimum standards for ES. • Availability of results of an ES footprint assessment.
3. Improve the shipment timeliness and condition of ES samples	• ≥80% of ES samples reach a WHO-accredited laboratory within three (3) days of collection for domestic shipments and within seven (7) days for international shipments (site level). • ≥80% of ES samples reach a WHO-accredited laboratory in good condition (site level).
4. Prepare for integration with other wastewater-detectable pathogens	• Concept note prepared on ES integration with wastewater surveillance programme.
5. Improve and standardize the ES data pipeline, from collection to use	• ≥50% of high-priority countries and territories using e-data tools (WebIFA, ODK). • All high-priority countries and territories submit minimum data elements to the global level. • Guidance for accessing and using ES site catchment area information available for all high-priority countries and territories.

ES = environmental surveillance; EV = enterovirus; ODK = open data kit; WebIFA = web-based information for action (system); WHO = World Health Organization.

[19] Global Polio Eradication Initiative (GPEI). Field guidance for the implementation of environmental surveillance for poliovirus. Geneva: World Health Organization; 2023 (https://polioeradication.org/wp-content/uploads/2023/06/Field-Guidance-for-the-Implementation-of-ES-20230007-ENG.pdf, accessed 22 December 2024).

Major Activity 1. Improve and maintain the sensitivity of ES sites

ES sites must meet sensitivity and operational standards to reliably detect viruses of interest, including WPV1 and VDPVs. The standards, available in the *Global ES Field Guidance*, are an essential resource for maintaining ES site sensitivity.[20]

To increase awareness and understanding of site management, trainings should be prioritized and conducted at least annually, and ES should be included as a component of refresher AFP and VPD surveillance trainings for polio surveillance and laboratory officers.

To monitor site performance and adherence to the *Global ES Field Guidance,* the SG will regularly conduct desk and field reviews to support countries, through WHO regional offices, in identifying corrective actions that must be taken, such as modifying or closing underperforming sites or opening ad hoc sites to support outbreak response.[21] Additional factors that could impact site performance may be observed through routine supervisory visits and corrected as needed.

New methods and technologies for sample collection, site selection and analysis will be evaluated. The SG will engage with partners conducting this type of research to understand their potential benefit to the programme. One area of work that is already under evaluation is a site sensitivity and performance assessment tool that goes beyond the traditional indicator of enterovirus (EV) detection and provides more information on which to assess the epidemiological value of an ES site.

Activity 1 tasks

- ✓ Develop a plan for monitoring country- and site-level adherence to the *Global ES Field Guidance*.
- ✓ Conduct refresher trainings at least annually in priority countries.
- ✓ Evaluate the use of technology and new methods for ES sample collection and site selection.
- ✓ Develop and implement an assessment tool for scoring ES sensitivity and performance.

Major Activity 2. Optimize ES based on country context, with emphasis on high-risk areas

ES optimization requires striking a balance between achieving adequate population coverage, especially in high-risk transmission areas, and ensuring a pragmatic and sustainable use of programme resources. The characteristics of an optimal ES system often vary based on country context and other factors such as:

- polio-free, polio-at-risk or polio-affected country status and length of status;
- chronic and acute risk factors such as population immunity to polio and geographic proximity to known polio transmission areas;
- laboratory capacity to process and test ES samples; and
- the feasibility of effectively sampling targeted areas and populations given the many factors that impact accessibility, including the kind of sewage systems.

[20] Global Polio Eradication Initiative (GPEI). Field guidance for the implementation of environmental surveillance for poliovirus. Geneva: World Health Organization; 2023 (https://polioeradication.org/wp-content/uploads/2023/06/Field-Guidance-for-the-Implementation-of-ES-20230007-ENG.pdf, accessed 22 December 2024).
[21] Global Polio Eradication Initiative (GPEI). Standard Operating Procedures for Polio Environmental Surveillance Enhancement Following Investigation of a Poliovirus Event or Outbreak. Geneva: World Health Organization; 2020 (https://polioeradication.org/wp-content/uploads/2024/05/SOPs-for-Polio-ES-enhancement-following-outbreak-20210208.pdf, accessed 22 December 2024).

Country- and site-level minimum standards (i.e. minimum criteria for site selection and sample collection) will be updated by the SG to better support countries in understanding these and other contextual factors. The programme will also conduct an analysis of the current ES footprint, or the overall coverage of ES networks, to identify additional needs in both the short and long term and to guide the prioritization of ES optimization activities. An additional component is to ensure that sites are sufficiently sensitive to detect circulating polioviruses and contribute reliable negative findings; therefore, tasks related to modifying and closing underperforming sites (**Activity 1**) are also critical to ES optimization.

Activity 2 tasks

- ✓ Update country- and site-level minimum standards for ES.
- ✓ Conduct analysis to understand current ES footprint and identify needs for the short and long term.
- ✓ Support countries to meet minimum standards and optimize their ES networks.

Major Activity 3. Improve the shipment timeliness and condition of ES samples

Sample shipment delays are detrimental to ES performance. Delays not only prolong the time until results are available and outbreak response can begin; they can also affect the validity of ES samples, particularly when samples are stored or transported outside of the recommended temperature range.

ES sample tracking, from the point of collection to arrival at the laboratory, can be used in targeted countries and subnational areas to isolate bottlenecks and identify where corrective action may be taken. Where feasible and appropriate, real-time sample tracking will be used. Alternative shipping methods and or testing laboratories can also be explored to decrease time to laboratory results.

Activity 3 tasks

- ✓ In targeted areas, conduct ES sample tracking to identify and take action to address bottlenecks in sample transport.
- ✓ Explore alternative shipping and/or testing laboratories to decrease delays

Major Activity 4. Prepare for integration with other wastewater-detectable pathogens

To ensure the long-term sustainability and accountability of polio surveillance, polio ES should be integrated with other surveillance systems in a way that preserves the vast infrastructure and capacity that has been built around polio eradication and has benefited more public health concerns than just poliovirus.

Opportunities for integration with other wastewater surveillance programmes, such as antimicrobial resistance monitoring or enterovirus surveillance (EVS), will be actively explored. The SG will identify and engage with groups that currently use wastewater surveillance to initiate planning discussions. Principles and examples of how to successfully integrate poliovirus with other wastewater surveillance programmes will be documented, so this information can be shared across the programme.

Activity 4 tasks

- ✓ Explore integration opportunities with wastewater surveillance programmes, groups or initiatives.
- ✓ Document the principles required for poliovirus ES to be successfully integrated into wastewater surveillance.

Major Activity 5. Improve and standardize the ES data pipeline, from collection to use

The evolution of GPEI data management strategies has followed the rapid expansion of ES, which has led to disparate data collection systems that are not interoperable. The GPEI will continue to work on aligning data collection, management and reporting approaches (see also **Objective 5**).

Mobile data collection through electronic tools (eTools) provides an opportunity for near real-time tracking and assessment of supervisory site visits, frequency and completion rates, and timely follow-up of issues identified during the visit, particularly when compared to static Microsoft® Excel and Access databases. Regardless of collection systems, it is essential for the programme to review and update the minimum standard set of variables to be standardized from the country level to the regional and global levels that will support the monitoring of ES data (facilitating **Activities 1 and 2** above).

Technologies for assessing ES site catchment areas that include population estimation models and "blue lines" mapping are available but may be underutilized. The SG will develop guidance on how countries can leverage these resources to guide data for action.

Activity 5 tasks

- ✓ Support and promote use of mobile electronic data collection tools for sample collection and site supervision in all priority countries and territories.
- ✓ Update the minimum set of data elements for each country to provide to the regional/global level.
- ✓ Facilitate more data for action by developing guidance on how to access and use ES site catchment area information.

Accountability for implementing each of the tasks at the national, regional/subregional and global levels are detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

Immunodeficiency-associated vaccine-derived poliovirus (iVDPV) surveillance

Objective 3. Scale up iVDPV surveillance to sustain polio eradication

Individuals with primary immunodeficiency disorders (PIDs) who have been exposed to live oral polio vaccines (OPVs) are at increased risk of prolonged replication and excretion of vaccine viruses, which can lead to the development of immunodeficiency-associated vaccine-derived polioviruses (iVDPVs). At present, the risk of iVDPV transmission is not fully understood, but there is a potential risk that iVDPV excretion may lead to community iVDPV spread, especially in communities with low population immunity.

The aim of iVDPV surveillance is to identify and treat *non-paralysed* individuals with PIDs who are excreting iVDPVs, as most *paralysed* individuals are captured by AFP surveillance. iVDPV surveillance differs from case-based, syndromic AFP surveillance. It is a sentinel surveillance system that relies on two principles:

- establishing sentinel site surveillance to identify and screen patients with PIDs for poliovirus in iVDPV at-risk countries; and
- identifying iVDPV excretors among patients with PID through professional societies that capture primary immunodeficiencies in the remaining countries.

As of mid-2024, 10 countries are implementing some level of iVDPV surveillance systematically. Other countries have reported iVDPV cases, either detected through AFP surveillance or based on direct involvement with immunologists. (See **Annex H** for more on iVDPV risk.)

To support and expand iVDPV surveillance, the SG will be able to provide very limited funding for initial start-up costs, training and stool specimen testing. *Guidelines for Implementing Poliovirus Surveillance among Patients with Primary Immunodeficiency Disorders (PID)* (referred to as "*Global iVDPV Surveillance Guidelines*") are available online,[22] as are training materials and information systems to support countries.[23]

Countries currently implementing iVDPV surveillance

- ✓ China
- ✓ Colombia
- ✓ Cuba
- ✓ Egypt
- ✓ India
- ✓ Islamic Republic of Iran
- ✓ Nigeria
- ✓ Pakistan
- ✓ Senegal
- ✓ Tunisia

Vision: By the end of 2026, the GPEI will have scaled up iVDPV surveillance to improve its ability to detect iVDPV excretors and reduce the risk of community transmission. Systematically collecting and analysing iVDPV related data will also help the GPEI better define the risk iVDPV represents to polio eradication, especially after global OPV cessation.

[22] Global Polio Eradication Initiative (GPEI). Guidelines for Implementing Poliovirus Surveillance among Patients with Primary Immunodeficiency Disorders (PIDs). Geneva: World Health Organization; 2022 (https://polioeradication.org/wp-content/uploads/2022/06/Guidelines-for-Implementing-PID-Suveillance_EN.pdf, accessed 22 December 2024).
[23] Available at: https://polioeradication.org/resource-hub/?rh_tools=surveillance-resources (accessed 22 December 2024).

Table 5. Major activities and key performance and process indicators for Objective 3

Major Activities	Key performance and process indicators
1. Support and expand iVDPV surveillance in countries with existing systems	• All countries with established iVDPV surveillance systems conduct/have conducted a field review.
2. Implement iVDPV surveillance in at least five additional at-risk countries across all regions	• Five additional at-risk countries conducting iVDPV surveillance, resulting in the global network having at least one country per WHO region. • Updated risk model available by early 2026.
3. Ensure iVDPV information system is available with regular and systematic reporting of data to the GPEI	• ≥80% of countries with functioning iVDPV surveillance that regularly share iVDPV surveillance data to WHO headquarters, at least monthly. • Regular monitoring and quarterly reporting of iVDPV surveillance data/indicators at the global level.
4. Set up a system for regular coordination with societies for PIDs and immunology networks	• At least one sensitization session with PID societies per year.
5. Coordinate with research groups on antiviral therapies, monoclonal antibodies and rapid diagnostics	• At least once-a-year update on antiviral therapies and rapid diagnostics.

iVDPV = immunodeficiency-associated vaccine-derived poliovirus; PID = primary immunodeficiency disorder; WHO = World Health Organization.

Activity 1. Support and expand iVDPV surveillance in countries with existing systems

The scope and modality of iVDPV surveillance varies by country. It is performed as a research project (China); conducted as a surveillance system operated through the MoH (Colombia, Cuba, Egypt, India, the Islamic Republic of Iran, Pakistan and Tunisia); and initiated as part of the emergency use licensure (EUL) requirement for nOPV2 rollout (Nigeria and Senegal). The number of sentinel sites range from 1 to 98 per country. PID diagnostic capabilities also range from the use of clinical signs like those provided by the Jeffrey Modell Foundation to laboratory diagnostics.[24]

Recent assessments completed in Egypt and Pakistan identified national-level priority activities such as the need for regular capacity-building and sensitization and the need to share surveillance data in a standardized and systematic manner.

In countries initiating iVDPV surveillance or with an existing iVDPV surveillance, the next step would be to consolidate progress-to-date, optimize the number of sentinel sites, regularly assess monitoring indicators and address identified gaps. Countries that commence iVDPV surveillance should conduct a field review one year after initiation. Furthermore, for countries performing iVDPV surveillance, polio surveillance desk and field reviews and any other activities that examine polio surveillance sensitivity should include iVDPV surveillance in their assessments.

Activity 1 tasks

- ✓ Monitor KPIs to measure progress-to-date, identify and address gaps.
- ✓ Explore the possibility of expanding the network within the country, where feasible.
- ✓ Conduct a field review one year after initiating iVDPV surveillance.
- ✓ Update desk review templates and field review guidance to include iVDPV surveillance.

[24] See the Jeffrey Modell Foundation website for PID warning signs: https://info4pi.org/library/educational-materials (accessed 22 December 2024).

Activity 2. Implement iVDPV surveillance in at least five additional at-risk countries across all regions

The GPEI completed a risk assessment (**Annex H**) to score OPV-using countries over time on the risk of iVDPV excretion leading to potential cVDPV transmission and incidence of poliomyelitis.[25] The assessment is limited by the sparsity of available data, resulting in large uncertainty in predictions. The findings, therefore, are not prescriptive but are useful for starting discussions on where iVDPV surveillance may be initiated. To better understand iVDPV risk to maintaining polio eradication and the sensitivity required of iVDPV surveillance to inform the certification of eradication, it is vital to collect more data.

Why are at-risk iVDPV countries different than the countries and territories prioritized by this GPSAP?

At-risk iVDPV countries were identified through a separate risk assessment approach and were not a criterion in the SG prioritization assessment.

Scaling up iVDPV surveillance in at least five additional at-risk countries across all regions (i.e. globally) will be a priority. Based on the iVDPV risk assessment, possible countries have been identified in the six WHO regions to begin discussions (see **Annex H**). WHO regional offices will continue to sensitize countries (and Regional Commissions for the Certification of Poliomyelitis Eradication [RCCs]) and will prioritize at-risk countries with capacity to detect and diagnose PID patients. Once the selection has been made, regional and country offices will work together to obtain government clearance. To ensure sustainability of iVDPV surveillance in all WHO regions after WPV1 eradication and cVDPV2 elimination, regions that do not have iVDPV surveillance in an at-risk country will be prioritized. Technical support will be provided to countries that are not at-risk countries but are keen to implement iVDPV surveillance within their existing health system.

Activity 2 tasks

- ✓ Continue to update the iVDPV risk model and refine prioritization as more data become available.
- ✓ Establish iVDPV surveillance in five (5) additional at-risk countries across all regions.
- ✓ Provide technical support to other non-at-risk countries, as necessary.
- ✓ Sensitize regions and countries through one webinar per region; brief RCCs.

Activity 3. Ensure iVDPV information system is available with regular and systematic reporting of data to the GPEI

To date, iVDPVs have been detected in patients with PIDs, but global reporting of iVDPVs has faced challenges. Reporting follows the same procedural steps as all other polioviruses and is to be reported immediately under International Health Regulations (IHR), but currently reports are not received at WHO headquarters. Likewise, iVDPV surveillance data (i.e. female and male patients with PIDs who are screened and regularly monitored for iVDPV) should be shared at least once a month but are not. This makes it difficult to monitor iVDPV surveillance and report on iVDPVs globally.

A new web-based information for action (WebIFA) system with an iVDPV surveillance module has been shared with WHO regional offices and is planned for rollout (see **Objective 5**). The module supports data collection for iVDPV surveillance and includes a data-sharing protocol. Regional offices should encourage uptake of WebIFA so country-level iVDPV surveillance data are shared systematically with WHO

[25] The parameters and assumptions included in this model are a higher number of PIDs or incidence of PIDs, percentage of consanguineous marriages, and duration of iVDPV excretion. Other factors included population immunity, transmission efficiency and ability to provide PID care.

regional offices and headquarters. Once iVDPV surveillance modules are available and data can be exchanged, countries should upload all historical data in POLIS including data from Egypt, India, the Islamic Republic of Iran, Pakistan and Tunisia.

Data collection and exchange tools will be developed for countries that do not or will not use WebIFA to ensure their iVDPV surveillance data are still shared with the regional and global levels.

Regular monitoring of performance indicators should be done on a quarterly basis, and iVDPV surveillance data will be published as part of the monthly global update.

Activity 3 tasks

- ✓ Expedite use of WebIFA and iVDPV surveillance module throughout WHO Regional Offices for Africa and the Eastern Mediterranean.
- ✓ Develop data collection and exchange tools for countries not using WebIFA.
- ✓ Ensure countries are regularly sharing data through POLIS in the standardized format.
- ✓ Upload all historical data in POLIS.

Activity 4. Set up a system for regular coordination with societies for PIDs and immunology networks

Societies for PIDs and immunology networks play a crucial role in advancing research, education and patient care, as well as in facilitating information exchange between healthcare professionals, patients and their families. However, these organized networks are scarce. In regions without these resources, independent centres and uncoordinated small networks provide specialist services.[26]

Mapping and connecting with regional societies and immunology networks will be a necessary first step toward sensitizing them on the risk of iVDPV while simultaneously promoting iVDPV surveillance. At least one sensitization session with PID societies should be targeted every year.

Activity 4 tasks

- ✓ Identify and map existing immunology societies and networks.
- ✓ Link with and sensitize existing networks.

Activity 5. Coordinate with research groups on antiviral therapies, monoclonal antibodies and rapid diagnostics

Poliovirus antiviral therapies are still under development, including a combination therapy of two drugs: pocapavir (V-073) and imocitrelvir (V-7404). However, only pocapavir is currently available under compassionate use for PID patients excreting poliovirus, including iVDPV.

[26] Nordin J, Solís L, Prévot J, Mahlaoui N, Chapel H, et al. The PID Principles of Care: Where Are We Now? A Global Status Report Based on the PID Life Index. Front. Immunol. 2021 Nov;12:780140. doi: 10.3389/fimmu.2021.780140.

Updates on the progress, availability and coordinated release of antiviral drugs for compassionate use will be provided by the polio programme as it monitors the development of antiviral therapies and monoclonal antibodies.

A rapid diagnostic test is currently being developed to screen for females and males at risk of specific forms of PIDs, particularly those that include primary antibody deficiency. Those who receive test results indicative of low IgG levels should receive additional follow-up testing for PID confirmation or diagnosis. The rapid test has been designed as an affordable and easy-to-use test strip.[27]

Activity 5 tasks

- ✓ Monitor progress with antiviral therapy, monoclonal antibodies and point-of-care diagnostics.
- ✓ Brief countries on current recommendations and steps for compassionate use of pocapavir.
- ✓ Facilitate communication between treating physicians and antiviral manufacturer to secure antiviral drugs under compassionate use.

Accountability for implementing each of the tasks at the national, regional/subregional and global levels are detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

[27] Israeli S, Golden A, Atalig M, Mekki N, Rais A, et al. A Novel Point-of-Care Rapid Diagnostic Test for Screening Individuals for Antibody Deficiencies. J Clin Immunol. 2022 Feb;42(2):394-403. doi: 10.1007/s10875-021-01179-0.

Laboratory surveillance

Objective 4. Maintain and strengthen the integrity, capacity and capability of the Global Polio Laboratory Network

For the last three decades, the GPEI has relied on the timely, accurate testing and data provided by the GPLN.[28] Comprised of 144 WHO-accredited laboratories in 91 countries of the six WHO regions, the GPLN works in close coordination with AFP and environmental surveillance. As these surveillance systems have taken steps to improve their sensitivity, the number of samples received for testing has increased. The GPLN has responded to this increased workload through dynamic capacity-building and planning.[29] Now, with new laboratory testing methods on the horizon, the GPLN has been systematically evaluating each method and associated quality control data.[30]

Vision: Under the GPSAP 2025–2026, the GPLN will maintain the integrity and efficiency of the laboratory network to support eradication and elimination activities in all regions. By the end of 2026, the GPLN will achieve the following milestones:

- all laboratories fully accredited with strengthened supervision and accountability;
- turnaround time improved by ensuring all high-priority countries and territories can directly ship samples to a GPLN laboratory with sequencing capacity;
- plans for onboarding new sequencing laboratories validated and implemented; and
- a strategy defined and pilot tested in at least two countries to support the integration of poliovirus laboratory surveillance to comprehensive VPD surveillance.

Table 6. Major activities and key performance and process indicators for Objective 4

Major activities	Key performance and process indicators
1. Strengthen oversight of quality management systems in all GPLN laboratories	• ≥80% of GPLN laboratories hold an accreditation status (≤2 years), and data are recorded and validated in GPLNMS. • At least one (1) training session on laboratory management is organized in each of the six WHO regions by the end of 2025. • ≥90% of GPLN laboratories have received and processed PT panels in 2025–2026 and reported results in GPLNMS.
2. Sustain and strengthen processing capacity in all GPLN laboratories, prioritizing those serving high-priority countries and territories	• ≥80% of GPLN laboratories serving high-priority countries and territories have a RO-validated contingency plan. • GPLN supports at least two (2) capacity-building trainings for molecular surveillance per year. • Annual progress report on hub status and long-term agreements.

GPLN = Global Polio Laboratory Network; GPLNMS = Global Polio Laboratory Network Management System; PT = proficiency testing; RO = regional office; WHO World Health Organization.

[28] For GPLN reports and publications, see the GPEI website (https://polioeradication.org/tools-and-library/policy-reports/gpln-publications, accessed 22 December 2024).
[29] See Global Polio Eradication Initiative (GPEI). Global Polio Surveillance Action Plan 2022–2024. Geneva: World Health Organization; 2022 (https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf, accessed 22 December 2024).
[30] Global Polio Eradication Initiative (GPEI). Global Polio Laboratory Network: Guidance Paper 7. Evaluation and Adoption of New Polio Diagnostic Methods and Procedures. Version 2. Geneva: World Health Organization; 2023 (https://polioeradication.org/wp-content/uploads/2023/07/GP7_Evaluation-and-Adoption-of-diagnostic-methods-in-the-GPLN.30.05.23.Final_.pdf, accessed 22 December 2024).

Table 6 (continued)

Major activities	Key performance and process indicators
3. Continue the assessment of new or adapted methodologies and algorithms and implement after validation, prioritizing laboratories serving high-priority countries and territories	• 100% of high-priority countries and territories can directly ship samples to a WHO-accredited sequencing laboratory with a maximum of one (1) international shipment by the end of 2026. • SWG decision on DD method acceptance or recommendation is communicated two (2) months after dossier submission. • SWG report and recommendations on QA/QC systems proposed by DD method providers is available two (2) months after submission. • Regional implementation plan for newly accepted/recommended methods are available three (3) months after SWG decision on acceptance or recommendation of the new method.
4. Continue to work with broader laboratory surveillance networks, including other VPDs, and document integration activities	• Concept note validated and pilot tested in two (2) countries by June 2025. • Progress reports on harmonized EQA panels are published by GPLN and VPD LabNets. • PoNS and MeaNS/RubeNS steering committee meetings held at least once per year. • Pilot tests of VPD joint accreditation exercises are held in at least two (2) countries by mid-2025, and recommendations published by the end of 2025.
5. Develop a strategy for the long-term sustainability of core GPLN functions	• Publish guiding principles document on functions and structure of GPLN. • Develop a consolidated GPLN sustainability plan by the end of 2025 to support integration and inform strategic planning to maintain laboratory functions after GPEI strategic goals are met.

DD = direct detection; EQA = external quality assessment; GPEI = Global Polio Eradication Initiative; GPLN = Global Polio Laboratory Network; LabNets = laboratory networks; MeaNS = measles nucleotide surveillance (database); PoNS = poliovirus nucleotide sequence (database); QA = quality assurance; QC = quality control; RubeNS = rubella nucleotide surveillance (database); SWG = (ad hoc) Small Working Group; VPD = vaccine-preventable disease; WHO = World Health Organization.

Major Activity 1. Strengthen oversight of quality management systems in all GPLN laboratories

Quality management systems help to improve the reliability and accuracy of test results and data by providing objective evidence of adherence to laboratory requirements. Effective oversight of the laboratory quality management system (LQMS) is a continual process that aims to maintain and strengthen laboratory management in alignment with WHO standards and guidance (e.g. WHO Biosecurity Guidance, GAPIV and Guidance on handling and managing PIM). Results from LQMS activities should be documented within the GPLNMS.

Quality management activities will be implemented to address challenges related to changing requirements and standards, personnel turnover, competing priorities within laboratories and increasing expectations as the GPEI nears eradication. These activities include:

- the development of comprehensive documentation based on existing WHO materials (e.g. LQMS handbook, global laboratory leadership program, Polio Lab Biosafety modules);
- periodic reviews and onsite deep desk reviews that follow detailed audit procedures;
- annual (refresher) training on laboratory management and proficiency testing (PT) for all recommended and accepted methods;
- two-year accreditation plans for all laboratories at the global level (global specialized laboratories [GSLs] and regional reference laboratories [RRLs]) and regional level (national polio laboratories [NPLs]); and
- the drafting and endorsement of a process for the in-house validation of accepted methods.

Activity 1 tasks

- ✓ Validate two-year accreditation plans for all GPLN laboratories.
- ✓ Support the LQMS and document results in GPLNMS, draft and endorse a process for in-house validation of accepted methods.
- ✓ Develop detailed audit procedures and implement comprehensive documentation of the laboratory quality system.
- ✓ Implement annual (refresher) training on laboratory management across the GPLN.
- ✓ Ensure alignment of GPLN laboratory procedures and work practices with WHO standards and guidance.
- ✓ Provide PT to all GPLN laboratories for all recommended and accepted methods.

Major Activity 2. Sustain and strengthen processing capacity in all GPLN laboratories, prioritizing those serving high-priority countries and territories

Laboratory procurement processes and capacity vary across regions. Each step must be systematically reviewed to identify ways to improve efficiency.

Procurement processes across the GPLN will be streamlined by reviewing current practices, identifying gaps and bottlenecks, developing plans for regional and global hubs (stockpiles), and entering into long-term agreements with key consumables, reagents and equipment manufacturers.

Capacity will be improved through flexible resource management. Contingency plans for laboratories serving high-priority countries and territories will be regularly reinforced, monitored and evaluated to ensure testing continuity. Training plans will be developed and, where already available, improved for staff performing molecular methods. Overall, the gender-balanced workforce in molecular surveillance will be strengthened and sustained through multi-year budgeted regional plans, aligned and coordinated at the global level, that will address the need for training and technical assistance.

Activity 2 tasks

- ✓ Reinforce, monitor and evaluate contingency plans in all laboratories serving high-priority countries and territories.
- ✓ Strengthen and sustain a gender-balanced workforce in molecular surveillance through multi-year budgeted regional plans.
- ✓ Streamline procurement processes across the GPLN by developing plans for global and regional hubs (stockpiles) and establishing long-term agreements with manufacturers.

Major Activity 3. Continue the assessment of new or adapted methodologies and algorithms and implement after validation, prioritizing laboratories serving high-priority countries and territories

The GPLN has steadily increased laboratory capability and capacity, with more than 130 laboratories participating in the most recent molecular ITD proficiency testing and 28 laboratories completing the sequencing proficiency testing. This increase in laboratories capable of performing molecular tests resulted in a substantial decrease in turnaround time, due to the reduced need to ship samples to WHO-accredited sequencing laboratories.

The GPLN will continue to prioritize the expansion and strengthening of sequencing capacity to improve timeliness of laboratory results.

Expanding the number of sequencing laboratories has been outlined in a framework provided by an ad hoc GPLN Small Working Group (SWG). Under the expansion, the GPLN will monitor the on-boarding of six new sequencing laboratories with the Ibadan laboratory in Nigeria and Uganda's laboratory planned for accreditation in early 2025.

Direct detection methods, currently being validated in GPLN laboratory settings, have the potential to further decrease turnaround times.[31] Support will be provided for all ongoing pilot testing for the two direct detection methods. Once the method providers submit a dossier for review, the SWG will make a decision on method acceptance (approval) within two months. If approved, the SWG will provide a report with recommendations based on the quality assurance (QA) and quality control (QC) systems provided by methods developers within two months. Within three months of acceptance, the SWG will develop regional implementation plans for new methods and algorithms.

Pilot testing of direct detection methods*

Direct detection with intratypic differentiation (DD-ITD) led by the US Centers for Disease Control and Prevention (CDC)	**Direct detection by nanopore sequencing (DDNS)** led by the National Institute for Biological Standards and Control and Imperial College
The Phase 2 pilot uses automated RNA extraction and began in December 2023 with the training of laboratory staff. Parallel pilot testing is ongoing.	The Phase 2 pilot focuses on parallel testing with the current methodology (VI, ITD and sequencing) and began in Q3 2024 in five laboratories (Democratic Republic of the Congo, Ghana, Kenya, Madagascar and Pakistan).
Based on data presented to the SWG,* of 13 criteria, eight have been fully met for recommended status and five have not been met.	Based on data presented to the SWG,* of 13 criteria, four have been fully met for recommended status, four have been partially met, and five have not been met.

Both DD-ITD and DDNS will require increasing the sequencing capacity of laboratorians across the GPLN, which is a key activity supported by GPSAP.

* As of October 2024.

Activity 3 tasks

- ✓ Monitor the progress of on-boarding new sequencing laboratories with a goal of six (6) new sequencing laboratories added to the network.
- ✓ Support finalization of all ongoing pilot testing for the two direct detection methods (DD-ITD and DDNS), and SWG to reach a decision point two months after a comprehensive dossier is submitted by methods providers.
- ✓ Review and validate comprehensive QA/QC systems provided by methods providers.
- ✓ Support the development of regional implementation plans for accepted and recommended methods and algorithms of testing.

[31] Global Polio Eradication Initiative (GPEI). Global Polio Laboratory Network: Guidance Paper 7. Evaluation and Adoption of New Polio Diagnostic Methods and Procedures. Version 2. Geneva: World Health Organization; 2023 (https://polioeradication.org/wp-content/uploads/2023/07/GP7_Evaluation-and-Adoption-of-diagnostic-methods-in-the-GPLN.30.05.23.Final_.pdf, accessed 22 December 2024).

Major Activity 4. Continue to work with broader laboratory surveillance networks, including other VPDs, and document integration activities

The GPLN is a leader in molecular testing and public health reporting. This presents opportunities for the integration of polio testing with broader laboratory surveillance networks.

The integration of laboratory tests for multiple VPDs will be facilitated by the expansion of the molecular testing capacity within the GPLN.[32] To support this effort, the SWG will develop a concept note on integration between the GPLN and other VPD laboratory networks, with the aim of pilot testing activities in at least two countries by June 2025.

For the integration of polio with measles/rubella and other VPDs, the GPLN has planned the following:

- the harmonization of external quality assessment (EQA) panels and reagent management between polio and measles/rubella through the International Reference Reagent system, with progress reports published by the GPLN and VPD laboratory networks (LabNets);
- the alignment of data management policy and practices between PoNS (poliovirus nucleotide sequence database) and MeaNS (measles nucleotide surveillance database)/RubeNS (rubella nucleotide surveillance database), with steering committee meetings held at least annually; and
- a joint accreditation exercise, including capacity-building, for polio, measles, rotavirus and/or Japanese encephalitis/yellow fever to be piloted in two countries by mid-2025 with recommendations published by the end of 2025.

Activity 4 tasks

- ✓ Develop a concept note on rationale and activities to be integrated between polio and other VPD LabNets, to be pilot tested in at least two countries.
- ✓ Harmonize EQA panels and reagent management between polio and measles/rubella through the International Reference Reagent system.
- ✓ Align policy and practices for sequencing data management and sharing for polio and measles.
- ✓ Pilot joint accreditation exercise, including capacity-building, with measles, rotavirus and/or Japanese encephalitis/yellow fever.

Major Activity 5. Develop a strategy for the long-term sustainability of core GPLN functions

Robust poliovirus laboratory surveillance will be critical to sustain a polio-free world. As the GPEI nears its strategic goals, minimum laboratory capacities must be defined and documented to inform funding decisions and support advocacy for the GPLN model that has proven to be efficient and sustainable over the past three decades.

Extensive stakeholder consultations will be organized to define the “guiding principles” of the GPLN. By the end of 2026, the SWG will develop a consolidated GPLN sustainability plan that details context-specific diagnostic procedures and testing algorithm(s), including the relative levels of molecular testing versus virus isolation, the minimum capacities required at the regional level, and the strategic locations of these capacities in each region to support cVDPV elimination.

[32] Diop OM, Kew OM, de Gourville EM, Pallansch MA. The Global Polio Laboratory Network as a Platform for the Viral Vaccine-Preventable and Emerging Diseases Laboratory Networks. J Infect Dis. 20171;216(suppl_1):S299–S307. doi: 10.1093/infdis/jix092.

Activity 5 tasks

- ✓ Define the functions and structure of the GPLN in a concept note by the end of 2026.
- ✓ Develop guidance on context-specific diagnostic procedures and testing algorithm(s) and minimum capacities required at the regional level to support cVDPV elimination.
- ✓ Advocate for financial sustainability and maintenance of the GPLN model.

Accountability for implementing each of the tasks at the national, regional/subregional and global levels are detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

Data and information management

Objective 5. Plan for an integrated future while increasing efficiency in data for action

As the GPEI plans for the integration of polio surveillance activities into other disease surveillance systems and the transition of polio functions to national governments with agency support, the comprehensive global polio data repository (POLIS) remains crucial to achieve and maintain eradication, including integrating and aligning with existing information systems in regions and countries. POLIS is central to the programme's overall data management strategy as an integrated platform for data for poliovirus surveillance, outbreak response, eradication activities and vaccine management.

In support of these priorities, POLIS will be adapted to meet evolving demands while ensuring accurate, reliable data that provides seamless interoperability with other systems/databases aimed at future-readiness. Throughout, POLIS will fully support the programme at all levels and among all partners by providing high-quality data to achieve GPEI goals.

Vision: By the end of 2026, POLIS aims to be the cornerstone of data integrity and reliability, equipped with advanced data transformation capabilities. To realize this vision, two milestones have been defined. These milestones are ambitious, and achievement will depend on regional capacities and practical challenges associated with rapid system improvements. Therefore, region-specific timelines and approaches will be tailored accordingly.

- By the end of 2025, full integration with existing polio surveillance systems across regions and countries will be achieved. This integration is critical for creating a unified platform that ensures robust system usage, meeting user needs and satisfaction.

- By the end of 2026, robust data integrity and reliability will be established, enabling seamless interoperability with the VPD surveillance ecosystem. Reliable data is essential for accurate decision-making and effective programme implementation, making this a foundational milestone.

Table 7. Major activities and key performance and process indicators for Objective 5

Major activities	Key performance and process indicators
1. **Ensure POLIS contains all data elements required for programmatic purposes and activities (including certification)**	• 100% of key indicators for certification are validated by June 2025. • Data verification and automated tools developed and implemented by December 2025. • iVDPV surveillance module developed and implemented in at least one (1) country per region by the end of 2025. • Ticketing system established by June 2025.
2. **Make improvements to/modernize regional and country information systems**	• ≥80% of laboratories serving high-priority countries and territories use WebIFA by the end of 2025. • ≥50% of high-priority countries and territories use WebIFA for AFP surveillance and ES by the end of 2025. • All high-priority countries and territories with non-WebIFA systems have established linkages with POLIS via xMart by the end of 2025.

AFP = acute flaccid paralysis; ES = environmental surveillance; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; POLIS = Polio Information System; WebIFA = web-based information for action (system).

Table 7 (continued)

Major activities	Key performance and process indicators
3. Strengthen country- and regional-level data management and analytical capacity	• User manuals for WebIFA and POLIS are available. • ≥50% of high-priority countries and territories participate in data management and analysis workshops.
4. Prepare POLIS for a future transfer or integration with other data and information management systems	• Key features of POLIS are self-contained and an associated maintenance budget is developed. • *Transition and Sustainability Report* for POLIS is available.
5. Increase collaboration with global stakeholders to foster integration, standardization, transparency and inter-regional coordination	• Convene semi-annual meetings with regional information system managers. • Convene quarterly coordination meetings with IVB and WHE. • Conduct POLIS steering committee meeting at least once per year.

IVB = Immunization, Vaccines and Biologicals (WHO department); POLIS = Polio Information System; WebIFA = web-based information for action (system); WHE = WHO Health Emergencies Programme; WHO = World Health Organization.

Major Activity 1. Ensure POLIS includes all data elements required for programmatic purposes and activities (including certification)

It is essential that POLIS has the data necessary for accurate decisions, efficient and effective implementation, and reliable certification. WHO headquarters will identify and validate key metrics, develop and maintain data sources, and enhance analytical capabilities for polio surveillance indicators. Verification steps will be used to validate changes in data during every release and to flag major changes pushed by countries or WHO regional offices.

Key activities include: enhancing the integration of ES; developing an iVDPV surveillance module; linking with regional electronic surveillance platforms (e.g. eSURV and ISS [integrated supportive supervision] in the African Region) and collaborating with regional offices to improve linkages with other data sources (e.g. active surveillance and reporting network data in the Eastern Mediterranean Region) and to standardize and reconcile analytic pipelines with a focus on integration with centralized systems.

Efforts will be made to improve stakeholder experience by setting up a manual review process for flagged changes and by developing a notification system to alert stakeholders about major data changes and verification outcomes. A user-friendly ticketing system will be implemented to address all issues from the field within 72 hours, and regular data quality checks will maintain high accuracy and integrity standards. These efforts will collectively ensure POLIS's data reliability and stakeholder experience for effective polio surveillance and certification.

Activity 1 tasks

- ✓ Validate certification indicators in POLIS, including source statistics and denominators.
- ✓ Establish detailed data verification protocols and implement automated tools to ensure data integrity and detect major changes during every release.
- ✓ Develop and implement iVDPV module (for WebIFA or existing systems) to upload iVDPV surveillance data in POLIS.
- ✓ Integrate and standardize analytic pipelines with WHO regional offices to capture data sources.
- ✓ Implement a ticketing system to ensure POLIS issues are addressed within 72 hours.

Major Activity 2: Make improvements to/modernize regional and country information systems

Data and information systems supporting the programme across the globe utilize diverse tools operating at varying capacities. Detailed assessment and documentation of these differences is crucial for assessing feasibility and setting region-specific targets. Modernizing WHO regional and country information systems will help to streamline processes, improve data integration and support decision-making. It will also foster collaboration across the programme, ultimately contributing to more effective policy development and programme implementation.

WebIFA will be rolled out and implemented in all WHO-accredited laboratories in the African and Eastern Mediterranean Regions, as well as in participating countries.[33] WebIFA trainings will be provided as well as implementation support.

For countries that opt to use a different polio information system, linkages with the regional offices will be established using an application programming interface (API) and pipelines into POLIS via xMart. This will standardize and streamline data management to enable seamless data integration and interoperability.

Activity 2 tasks

- ✓ Roll out WebIFA to WHO-accredited laboratories in the African and Eastern Mediterranean Regions.
- ✓ Roll out WebIFA to participating countries in the African and Eastern Mediterranean Regions.
- ✓ Ensure countries with non-WebIFA systems can continue to share data with POLIS via xMart.

Major Activity 3: Strengthen country- and regional-level data management and analytical capacity

While there are clear advantages to upgrading country and regional information systems, these new systems occur at a time when increased data sources are often working in parallel and when the sheer volume of data presents their own challenges. It will be important for countries and regions to efficiently process their data while simultaneously ensuring data quality.

Building capacity through new user manuals, tools, trainings and a commitment to close coordination will help address critical issues and improve regional and country capacity to process and use their data. The availability of POLIS analytical tools will also expand and strengthen country and regional capacity. With support from regional offices, countries should expand their analytical capacity to rapidly conduct assessments (desk and field reviews) when needed. This would include regional support to implement reviews in countries with limited capacity and global support to provide technical expertise to implement desk and field reviews.

Activity 3 tasks

- ✓ Develop user manuals for polio information systems (WebIFA, POLIS).
- ✓ Enhance regional and country capacity to process and use their data and POLIS analytical functions.
- ✓ Expand and strengthen the analytical capacity of countries to rapidly conduct desk and field reviews using POLIS analytical tools.

[33] WebIFA is a web-based information for action information system at the country level meant to replace the archaic information for action information system. It links in one location laboratory and field data that includes the ability to enter AFP cases, AFP contacts, specimens with laboratory results, ES site information and samples, and other electronic-based surveillance tools (e.g. WHO African Region's eSURV for active surveillance and specimen tracking).

Major Activity 4: Prepare POLIS for a future transfer or integration with other data and information management systems

A robust, self-sufficient system is achieved by ensuring its essential functions are reliable, maintainable and independent. While building a sustainable POLIS will take dedicated work, it also optimizes cost and resource allocation, reduces programme reliance on external resources, and ensures continuous operation.

Sustainability tasks include: formalizing a maintenance budget for portability and stability; packaging key features of POLIS into self-contained environments to ensure consistent performance across different systems at all levels (WHO headquarters, regional and country offices); reviewing the audit process to identify strengths and weaknesses; and providing a *Transition and Sustainability Report* to support long-term planning and stakeholder communication.

Process mapping to define areas of overlap with the comprehensive VPD surveillance system will support integration efforts. Along with a process mapping, key findings and recommendations will be presented to the POLIS steering committee to ensure strategic alignment with polio surveillance while also building synergies with other programmes to promote sustainability in the short and long term.

Activity 4 tasks

- ✓ Package key features of POLIS into self-contained, automated, and low-maintenance environments.
- ✓ Create, finalize and publish a Transition and Sustainability Report.
- ✓ Conduct process mapping, present findings and recommendations to the POLIS steering committee.

Major Activity 5: Increase collaboration with global stakeholders to foster integration, standardization, transparency and inter-regional coordination

Collaboration is essential to hone best practices and improve decision-making. Within data and information systems, collaboration also facilitates the seamless interoperability of diverse data systems, standardizes processes to ensure consistency, reliability and transparency, and promotes an overall user-centric approach. Furthermore, and specifically for POLIS, collaboration helps to keep key stakeholders engaged, to integrate regional data requirements, and to ensure strategic alignment.

Strengthening the community of practice (COP) at the heart of POLIS enhances continuous learning and sharing of best practices. Key activities include establishing several coordination forums to ensure that regional data requirements are identified for careful integration into POLIS to best meet user needs, to promote system integration and standardise data management across regions and to ensure strategic alignment and relevance of POLIS to the programme. In addition, to expand the pool of POLIS users, the programme will explore incorporating POLIS into STOP (Stop Transmission of Polio) training to equip participants with essential skills and foster global collaboration.

Activity 5 tasks

- ✓ Hold semi-annual meetings with regional information system managers and quarterly POLIS user group calls to ensure POLIS meets user needs.
- ✓ Hold quarterly coordination meetings with WHO Immunization, Vaccines and Biologicals (IVB) and WHO Health Emergencies Programme (WHE) to promote integration and standardization.
- ✓ Hold semi-annual POLIS steering committee meetings to guide collaborative development.

Accountability for implementing each of the tasks at the national, regional/subregional and global levels are detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

Management and accountability

Objective 6. Enhance surveillance management and accountability

As GPEI strategic goals are achieved and polio activities are transitioned to national governments with the support of agency partners, the success of a sustainable, sensitive polio surveillance system will rest with the commitment and capacity of national MoHs. To prepare for these changes, the SG will track and support key workstreams that include field surveillance activities, laboratory testing and data information systems. Global and regional surveillance staff will also work to ensure these workstreams are well integrated into comprehensive surveillance systems with workplans that align with and find support among GPEI partners. As the foundational steps for sustainable polio surveillance are laid, it will be essential for national programme staff to actively collaborate with regional and global staff to implement these activities.

Vision: By the end of 2026, to provide confidence that the GPEI can achieve and sustain polio eradication, all countries should be on the path toward achieving certification-standard surveillance through sustainable, integrated polio surveillance systems. At a minimum, countries receiving GPEI financial support for surveillance should have initiated transition plans to sustain sensitive polio surveillance systems. Countries with continuous transmission of polioviruses (e.g. Afghanistan, Nigeria, Pakistan and Somalia) will need to develop or update transition plans. All other countries at high risk for polio outbreaks should start to operationalize their transition plans by the end of 2026. Additionally, countries that do not currently receive GPEI support should safeguard the sustainability of their integrated VPD surveillance system to ensure full transition by the time WPV1 is eradicated and cVDPV2 is eliminated.

Table 8. Major activities and key performance and process indicators for Objective 6

Major activities	Key performance and process indicators
1. Develop and track GPSAP implementation in high-priority countries and territories	• All high-priority countries and territories have surveillance action plans that incorporate and align with the GPSAP 2025–2026. • Semi-annual report on GPSAP implementation submitted to the GPEI Strategy Committee.
2. Monitor surveillance risk and performance in priority countries and territories	• Semi-annual report on KPIs and KPPIs to the GPEI Strategy Committee.
3. Monitor and support the workplan of data systems, GPLN and regions	• Updates on HR capacity for maintaining surveillance activities (lab, data systems and regional support). • Quarterly updates by GPLN on laboratory workstreams to the SG. • Quarterly updates by the Data Information System team on WebIFA rollout and other workstreams to the SG.
4. Monitor and support the integration of polio surveillance activities	• ≥75% of high-priority countries and territories performed a rapid surveillance performance assessment after integration (and improvement plan, if necessary). • Develop and disseminate polio surveillance integration tool and checklist. • Develop and disseminate white papers on alternative surveillance systems for poliovirus detection.
5. Monitor and advocate for sustainable transition in countries that receive GPEI funding for surveillance	• ≥75% of high-priority countries and territories have transition plans to sustain well-performing surveillance systems. • ≥75% of high-priority countries and territories have dedicated non-GPEI funding to cover at least some polio surveillance costs.

GPEI = Global Polio Eradication Initiative; GPLN = Global Polio Laboratory Network; GPSAP = Global Polio Surveillance Action Plan; HR = human resource; KPI = key performance indicator; KPPI = key performance and process indicator; SG = Surveillance Group; WebIFA = web-based information for action (system).

Major Activity 1. Develop and track GPSAP implementation in high-priority countries and territories

High-priority countries and territories should develop, implement, monitor and report on their surveillance strengthening plans, incorporating the activities and tasks as described in this GPSAP 2025–2026 (see **Annex E**). Such plans should cover all aspects of polio surveillance, highlighting timelines for delivering on key activities and identifying clear lines of responsibility and accountability to support implementation. Surveillance strengthening plans should also address how countries will integrate polio surveillance with other programmes while maintaining surveillance sensitivity.

Quarterly, national programmes will report to WHO regional offices on their surveillance strengthening plan implementation. WHO regional offices will report to the SG semi-annually on the implementation of GPSAP within their regions with a focus on high-priority countries. The SG's primary task will be to track and report on the progress of the GPSAP implementation to the GPEI Strategy Committee semi-annually with a focus on the status of activity implementation in the high-priority countries and territories.

Surveillance strengthening plans are considered living documents and should be updated as the epidemiology of polio changes, and the availability of new recommendations and surveillance practices.

Only 15 countries in WHO African Region and three countries in Eastern Mediterranean Region (including the two WPV1 endemic countries Afghanistan and Pakistan) are currently receiving direct GPEI financial support for surveillance (see **Fig. 2** in **Introduction: Geographies**). As the world prepares for certification of WPV1 eradication and cVDPV2 elimination, all 18 countries need to identify cost-sharing schemes and government financial and managerial contributions to implement national surveillance strengthening plans.

Activity 1 tasks

- ✓ Incorporate GPSAP 2025–2026 activities and tasks into surveillance strengthening plans, identifying clear lines of responsibility and accountability to support implementation (**Annex E**).
- ✓ Quarterly report to WHO regional office on surveillance strengthening plan implementation.
- ✓ Semi-annually report on GPSAP 2025–2026 implementation to the SG; SG to then share reports with the GPEI Strategy Committee.

Major Activity 2. Monitor surveillance risk and performance in priority countries and territories

The GPEI Strategy notes that a key risk to achieving and maintaining polio eradication is poor surveillance.

To respond to this risk of poor surveillance, all surveillance KPPIs will be carefully monitored. Such monitoring requires clear accountability and reporting across all levels (see **Fig. 4**, next page).

Systematic and standardized performance assessments will also be used by countries and WHO regional offices to assess surveillance performance and monitor risks. These assessments include integrated VPD surveillance desk and field reviews, OBRAs and EPI reviews. To ensure that recommendations from these assessments are implemented, WHO regional offices will work with countries to track implementation on a quarterly basis. If there are country-level challenges to implementing recommendations, additional regional and global support is available to aid in problem-solving.

Fig. 4. Surveillance accountability and reporting across the GPEI

GPEI = Global Polio Eradication Initiative; KPI = key performance indicator; KPPI = key performance and process indicator.

Source: WHO.

Activity 2 tasks

- ✓ Monitor surveillance performance using KPPIs for all countries with a focus on high-priority countries and territories, quarterly.
- ✓ Assess polio surveillance performance through systematic and standardized performance evaluations with support from WHO regional offices.
- ✓ Track implementation of recommendations from performance evaluations to improve surveillance with support from WHO regional offices.

Major Activity 3. Monitor and support the workplan of data systems, GPLN and regions

Monitoring and supporting GPEI workstreams, including laboratories and data information systems, is critical to ensure that the programme is able to provide timely and accurate results.

Mapping gender-balanced human resource (HR) capacity needs for laboratory testing, data information systems and regional technical support will be initiated by global and regional partners to ensure workstream needs are fulfilled.

Quarterly updates will be provided by the GPLN to the SG on key workstreams, including accreditation of laboratories, sequencing expansion and the status of DD methods validation. The Data Information System Team will likewise provide quarterly updates on key workstreams to the SG, including the number of countries that have rolled out WebIFA. Both groups will flag issues that need additional support by the SG, which will provide semi-annual updates to the GPEI Strategy Committee.

Activity 3 tasks

- ✓ Map HR capacity to ensure workstream needs can be fulfilled for laboratories, data systems and regional support.
- ✓ GPLN to provide quarterly updates to the SG on laboratory workstreams.
- ✓ Data Information System team to provide quarterly updates to the SG on WebIFA rollout and other workstreams.

Major Activity 4. Monitor and support the integration of polio surveillance activities

The integration of polio surveillance activities into broader disease surveillance activities will be necessary to ensure that surveillance functions are sustained and that surveillance sensitivity can be maintained in the long term. Integration has occurred to date on different timelines: some countries are fully integrated; others are in the midst of actively integrating polio surveillance activities; still other countries are in the early planning stages.

Lessons learned from countries that have integrated polio surveillance should be systematically collected to address topics such as AFP surveillance, laboratory surveillance and data information systems. Summary reports and case studies should be shared with countries undergoing or soon to undergo integration. The Regional Offices for Africa and the Western Pacific are collaborating with WHO IVB and CDC to capture this information. Some lessons learned emerged from the COVID-19 pandemic, as countries utilized polio resources – staff, structures and information systems – to deliver integrated services through innovative approaches.

A polio surveillance integration tool and checklist will be developed by building upon existing GPEI monitoring and evaluation tools, and country case studies. It will be published online by the SG to support countries, expand the programme's understanding of integration efforts, and enable monitoring and reporting.

Collaboration and a holistic approach to surveillance

While each objective highlights specific activities and tasks, it is imperative that all of these surveillance areas or workstreams be viewed as essential parts of a polio surveillance system. Addressing the activities in unison (at the country and regional level) helps to ensure the sensitivity of polio surveillance.

Working holistically to maintain polio surveillance will often require advocating through workstreams with other existing programmes and recognizing that these different systems may or may not have worked collaboratively previously. Rewiring for collaboration may require added lead time and preparations to make integration a success.

Rapid assessments along with desk and field reviews will also help to mitigate the risk of losing sensitivity after integrating polio surveillance activities. To ensure surveillance performance is maintained, these tools can be used to analyse the impact of transition on polio surveillance sensitivity by tracking surveillance indicators before, during and after the integration of activities and by conducting performance assessments in the field (see **Activity 3**). Polio surveillance improvement plans should be developed to address any challenges, as needed.

Surveillance for acute flaccid myelitis (AFM) and enterovirus (EV) can be conducive to detecting poliovirus. Both are used in countries that administer only the inactivated polio vaccine (IPV) in essential immunization programmes or in countries that are declared polio-free. The SG will explore these and other existing surveillance systems and activities. Such systems may provide an alternative to identify poliovirus with modifications to established practices in countries that are not implementing routine polio surveillance activities, such as AFP surveillance.

Activity 4 tasks

- ✓ Work holistically to integrate polio surveillance in existing surveillance workstreams.
- ✓ Collect lessons learned from countries that have integrated polio surveillance and share with countries undergoing or soon to undergo integration.
- ✓ Develop a polio surveillance integration tool and checklist.
- ✓ Conduct rapid assessment of polio surveillance sensitivity and develop improvement plans to address challenges, as needed.
- ✓ Explore existing, alternative surveillance systems for the detection of poliovirus.

Major Activity 5. Monitor and advocate for sustainable transition in countries that receive GPEI funding for surveillance

Ensuring that GPEI-supported countries have transition plans to sustain surveillance beyond the technical and financial support they currently receive will be key to maintaining the polio surveillance sensitivity necessary to achieve and maintain polio eradication (see **Annex G: Budget**).

Global and regional partners will support countries in developing the surveillance component of their transition plans, in coordination with WHO transition teams. Countries and regions will need to identify financing options (i.e. non-GPEI funding) to ensure that key surveillance activities are resourced. Additionally, global and regional partners will participate in fora to support transition plans for surveillance by providing technical guidance on the core competencies that must be maintained as GPEI strategic goals are achieved.

Countries and regions should conduct rapid assessments of polio surveillance sensitivity and implement measures for improvement to mitigate the impact of transitioning surveillance activities from GPEI funding. These rapid assessments can also be used to assess the impact of integrating polio surveillance activities into broader VPD surveillance (see **Activity 2**).

Activity 5 tasks

- ✓ Develop transition plans that sustain technical and financial support for surveillance, with support from regional and global partners and in coordination with the WHO transition teams.
- ✓ Participate in global and regional forums to support transition plans for surveillance.

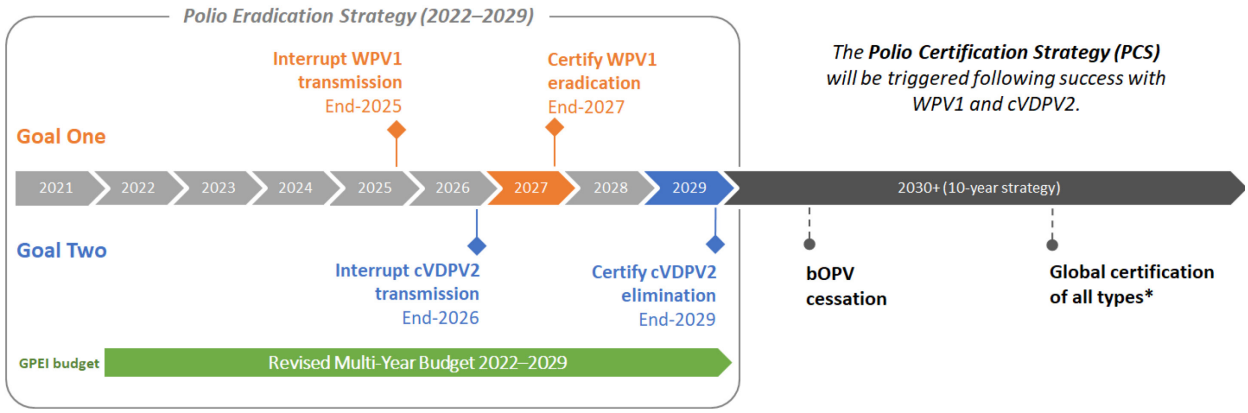
Accountability for implementing each of the tasks at the national, regional/subregional and global levels are detailed in the accountability framework for GPSAP 2025–2026 in **Annex E**.

PART THREE: PREPARING FOR SUSTAINABLE POLIO SURVEILLANCE SYSTEMS

As the GPEI enters the final years of its eradication strategy, surveillance will be leveraged to provide confidence in the achievement of WPV1 eradication (Goal One) and cVDPV2 elimination (Goal Two). During this time, the polio surveillance infrastructure will also undergo profound changes as polio-related activities become integrated with VPD surveillance or other disease surveillance systems and transitioned to national governments.

The maintenance of high-quality polio surveillance will be of utmost importance throughout and beyond GPEI's strategy goals. Fig. 5 outlines the key epidemiological milestones of the GPEI Strategy that are critical to decision-making and planning, with additional milestones that will follow in the 10-year period after GPEI strategic goals are met. These include bOPV cessation, the certification of the elimination of cVDPV1 and cVDPV3, and the eventual global certification of all poliovirus types.

Fig. 5. GPEI Polio Eradication Strategy timeline, with key milestones after strategic goals are achieved



* Pending GCC decision on whether cVDPV1 and cVDPV3 elimination will be certified prior to or at global certification of all types.

Note: The Polio Certification Strategy timeline will be revised ahead of its publication in 2026. For the latest version, see the GPEI website.

bOPV = bivalent oral polio vaccine; cVDPV1 = circulating vaccine-derived poliovirus type 1; cVDPV2 = circulating vaccine-derived poliovirus type 2; cVDPV3 = circulating vaccine-derived poliovirus type 3; GCC = Global Commission for the Certification of Poliomyelitis Eradication' GPEI = Global Polio Eradication Initiative; WPV1 = wild poliovirus type 1.

Source: WHO.

Vision for polio surveillance as GPEI strategic goals are achieved

Managing risks within the period between the certification of WPV1 eradication and the certification of cVDPV2 elimination will be critical to sustain the gains of the programme. In this phase, the primary epidemiological risk will be missed transmission of WPV1 or cVDPV2. Secondary epidemiological risks include new emergences of cVDPV1 and cVDPV3 (e.g. low population immunity to types 1 and 3, asynchronous bOPV cessation), iVDPVs and containment breaches. Additionally, key implementation risks include failed integration of polio surveillance into broader VPD surveillance and failed transition of countries from GPEI support to other funding sources for surveillance.

Successful GPSAP 2025–2026 implementation will be key to addressing these future risks. Global certification standards for AFP surveillance will need to be maintained with progress towards the integration of surveillance activities into broader VPD surveillance; ES will need to be optimized with initial steps to integrate the system within broader wastewater surveillance; and iVDPV surveillance will need to be successfully scaled up to protect against and understand future outbreak risks.

Ultimately, surveillance activities must be fully transitioned from GPEI-led governance and accountability to a different model of ownership while maintaining a level of surveillance sensitivity capable of detecting new emergences or importations of polioviruses. Successful transition will require that activities are sustainably integrated into broader surveillance systems, with the SG engaging new partners to provide support to countries and regions. As the owners of global polio surveillance have yet to be identified, the SG will continue to collaborate with global groups in VPD surveillance, EBS and wastewater surveillance.

Surveillance strategies to sustain eradication

The GPSAP 2025–2026 introduces a new framework to address the level of surveillance sensitivity required of all countries (see **Part One: Polio surveillance sensitivity for all countries**). This framework will also be needed to sustain a polio-free world by defining the key surveillance strategies, minimum standards and requirements needed to support the achievement of GPEI strategic goals and to sustain the global commitment to polio eradication (see **Table 9**, next page).

Highly sensitive surveillance

Highly sensitive surveillance countries should maintain active AFP surveillance and may include CBS and other tailored strategies for high-risk sub-groups. To supplement AFP, an optimized ES network should be maintained where ≥80% of sites achieve an ES EV detection rate of ≥50% at a minimum but strive for ≥80% ES EV detection.

Highly sensitive surveillance countries that are currently receiving GPEI support for surveillance will have the shortest timeline to transition from GPEI support to other sources of funding for surveillance. Therefore, additional support from the global and regional levels may be required to sustainably integrate polio surveillance activities into broader VPD surveillance. Furthermore, global and regional levels will need to aid in the identification of sustainable funding sources.

Very sensitive surveillance

Very sensitive surveillance countries should maintain active AFP surveillance and consider including CBS and other tailored strategies for high-risk sub-groups. If a country experiences a polio outbreak, they should enhance their AFP surveillance sensitivity by increasing the subnational NPAFP target to ≥3 per 100 000 children < 15 years old per year. Otherwise, countries in this group should target a subnational NPAFP rate of ≥2 per 100 000 children < 15 years old per year. To supplement AFP surveillance, an optimized ES network should be maintained where ≥80% of sites achieve an ES EV detection rate of ≥50%.

Very sensitive surveillance countries represent a mixture of countries currently receiving GPEI funding for surveillance and countries that have transitioned from direct GPEI support. Countries currently receiving funding from GPEI will need to identify sustainable, external funding for surveillance activities while further integrating polio surveillance functions into broader VPD surveillance.

Sensitive surveillance

Sensitive surveillance countries have all transitioned from GPEI support, and most countries have already fully integrated polio surveillance into broader VPD surveillance systems. These countries will need to maintain surveillance performance and sensitivity to detect any missed WPV1 or cVDPV transmission.

Sensitive surveillance countries represent two key groups that face different risks:

- **bOPV-using countries** may face an additional risk of cVDPV1/3 emergences if they stop using bOPV ahead of global bOPV cessation (asynchronous bOPV cessation). These countries will continue to use a mix of surveillance strategies including active and passive AFP surveillance, EBS and EVS to identify paralytic cases of polio. To supplement case-based surveillance, an optimized ES network should be maintained where ≥80% of sites achieve an ES EV detection rate of ≥50%.

- **IPV-only countries** use a mixture of surveillance types to detect poliovirus (e.g. AFM, EBS, EVS, and multi-pathogen wastewater surveillance) which may not include AFP surveillance. To support the efforts of countries that rely on other types of surveillance systems to detect polio, the SG will establish clear surveillance standards.

Laboratory requirements

In all countries, laboratories should continue current cell culture algorithms until DD methods are fully validated by the GPLN. Polio laboratories with sequencing capacity should be maintained in (or as close as possible to) countries requiring highly sensitive surveillance. Polio laboratories with at least VI and ITD capacity should be maintained in (or as close as possible to) all very sensitive and sensitive surveillance countries along with efficient referral system for sequencing.

Table 9. Summary of surveillance standards to sustain eradication by surveillance sensitivity level

	Highly sensitive surveillance	Very sensitive surveillance	Sensitive surveillance
Primary risk	Missed transmission (WPV1 or cVDPV2)		
Secondary risks	cVDPV1/3 (new emergence), iVDPV, asynchronous bOPV cessation, integration, transition		
Strategies	• Active AFP surveillance • Optimized ES • CBS for high-risk sub-groups • Fast and accurate laboratory diagnostics	• Active AFP surveillance • Optimized ES • CBS for high-risk sub-groups • Fast and accurate laboratory diagnostics	• Mix of active and passive AFP surveillance • ES and wastewater surveillance • EVS, EBS • Sustainable and accurate laboratory diagnostics

Surveillance standards	• NPAFP rate ≥3 subnational
	• ≥80% stool adequacy subnational
	• ≤35-day turnaround for PV positive results
	• Optimize network
	  • ≥80% ES EV for ≥80% of permanent sites;
	  • ≥80% of high-priority active surveillance sites visited weekly.
		• NPAFP rate ≥2 subnational*
		• ≥80% stool adequacy subnational
		• ≤46-day turnaround for PV positive results**
		• Optimize network
		  • ≥50% ES EV for ≥80% of permanent sites
		  • ≥80% of high-priority active surveillance sites visited weekly
			• NPAFP rate ≥1 nationally*
			• ≥80% stool adequacy nationally
			• ≤46-day turnaround for PV positive results**
			• Optimize network
			  • ≥50% ES EV for ≥80% of permanent sites

* Outbreak-affected countries to have a NPAFP rate target of ≥3.

** Countries in this category are not prioritized for sequencing expansion; the ≤46-day target allows for international shipment of specimens.

AFP = acute flaccid paralysis; bOPV = bivalent oral polio vaccine; cVDPV2 = circulating vaccine-derived poliovirus; EBS = event-based surveillance; ES = environmental surveillance; EV = enterovirus; EVS = enterovirus surveillance; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; NPAFP = non-polio acute flaccid paralysis; PV = poliovirus; WPV1 = wild poliovirus type 1.

Table 9 (continued)

	Highly sensitive surveillance	Very sensitive surveillance	Sensitive surveillance
iVDPV surveillance	• Establish/maintain if meeting criteria for iVDPV surveillance	• Establish/maintain if meeting criteria for iVDPV surveillance	• Establish/maintain if meeting criteria for iVDPV surveillance
Laboratory	• Continue current cell culture algorithms until direct detection methods are fully validated. • Polio laboratories with sequencing capacity should be maintained (or as close as possible to) in highly sensitive countries.	• Continue current cell culture algorithms until direct detection methods are fully validated. • Polio laboratories with at least VI and ITD capacity should be maintained (or as close as possible to) in all very sensitive surveillance countries along with efficient referral system for sequencing.	• Continue current cell culture algorithms until direct detection methods are fully validated. • Polio laboratories with at least VI and ITD capacity should be maintained (or as close as possible to) in all countries along with efficient referral system for sequencing.

ITD = intratypic differentiation; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; VI = virus isolation.

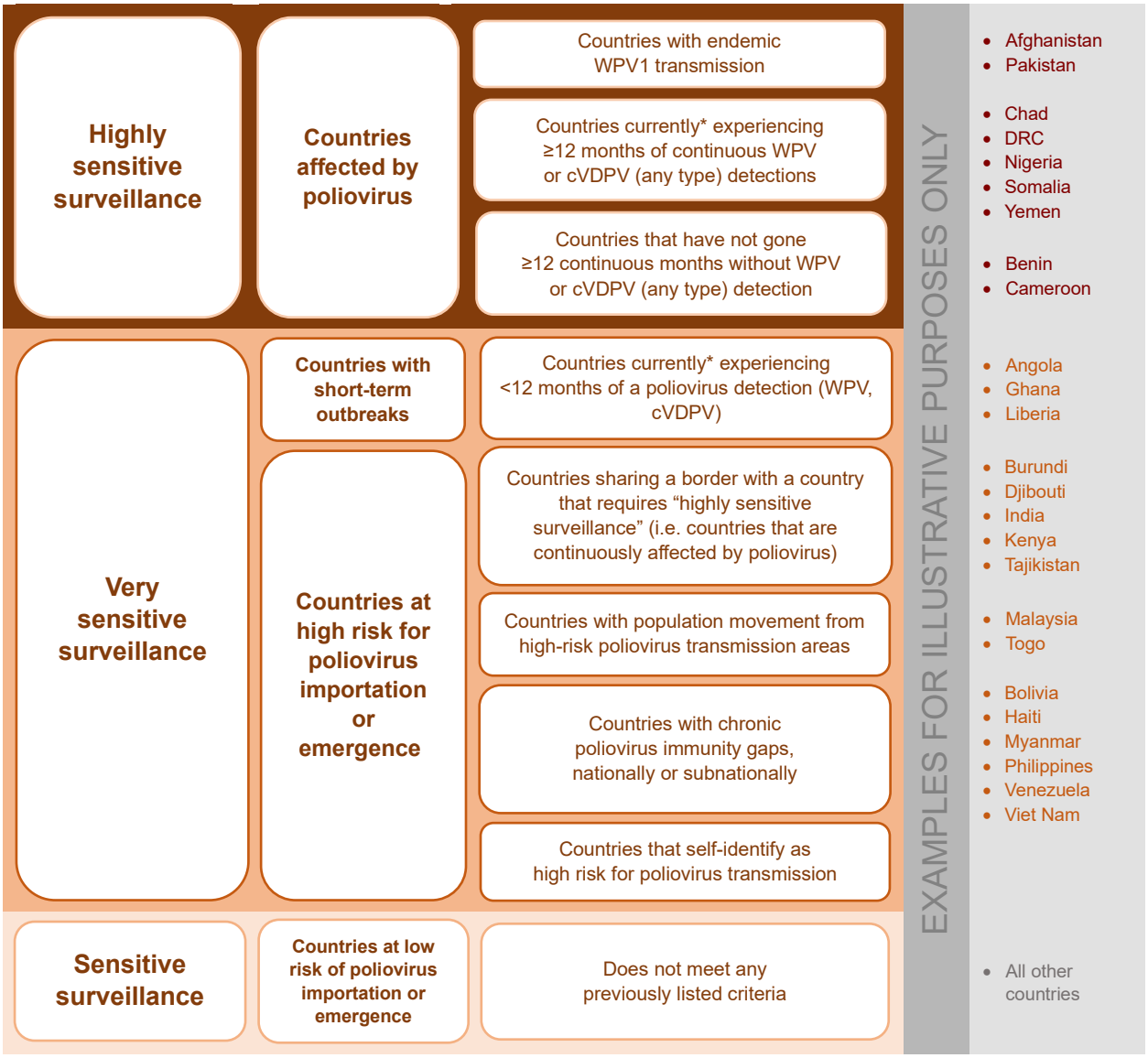
ANNEXES

Annex A. New framework for polio surveillance sensitivity

The level of poliovirus surveillance sensitivity required for each country or territory should be assessed at the start of 2025 and should be maintained throughout the period of this Global Polio Surveillance Action Plan (GPSAP). National programmes are to collaborate with regional offices of the World Health Organization (WHO) to identify the precise level of surveillance sensitivity required to detect polio transmission. It is recommended that data be reviewed from the previous two to three years.

The required threshold for surveillance sensitivity varies with the degree and history of poliovirus transmission, as well as with the risks of importation or emergence. **Fig. A1** provides criteria to determine the level of sensitivity required for a country or territory's poliovirus surveillance system.

Fig. A1. New framework for required level of polio surveillance sensitivity based on country risk profile



* Defined as today to previous six months.
cVDPV = circulating vaccine-derived poliovirus; DRC = Democratic Republic of the Congo; WPV = wild poliovirus type; WPV1 = wild poliovirus type 1.
Source: WHO.

When selecting the appropriate national-level surveillance category, subnational gaps in surveillance and/or low population immunity should be considered in addition to national indicators. For example, a country that may be at low risk for poliovirus importation but has blind spots or gaps in key subnational areas (i.e. population centres) is recommended to meet a *very sensitive surveillance* level.

Countries and territories should never decrease their sensitivity below their required level, but they may increase their sensitivity above the required level to address the changing epidemiology of polio within the country or a neighbouring country (e.g. from *sensitive surveillance* to *very sensitive surveillance*).

Risks and risk mitigation strategies for each of the surveillance sensitivity levels were identified by a group of polio surveillance subject matter experts (SMEs) representing partners of the Global Polio Eradication Initiative (GPEI) and regional and national colleagues. While the risks to polio surveillance sensitivity may overlap among the levels, there are also unique challenges. A companion workbook *"Outputs from polio surveillance SME work groups - risks and risk mitigation strategies"* provides a complete and detailed list of risks and mitigation strategies.

Highly sensitive surveillance

To guide programmes in achieving highly sensitive surveillance, see minimum targets for select surveillance indicators (at right).

An abridged version of the top five risks to *highly sensitive surveillance* is included in **Table A1**.

Minimum targets for select surveillance indicators

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

AFP = acute flaccid paralysis; ES = environmental surveillance; EV = enterovirus; NPAFP = non-polio acute flaccid paralysis; VDPV = vaccine-derived poliovirus; WPV = wild poliovirus

Table A1. Top five risks and risk mitigation strategies for highly sensitive surveillance

Risks	Risk mitigation strategies
Lack of geographic and demographic comprehensiveness of AFP surveillance network (access and utilization)	• Map areas and populations missed from the network, including inaccessible and security-compromised areas. • Identify existing service providers and health-seeking behaviours. • Identify, sensitize and engage available facilities and AFP focal persons. • Explore establishing community-based surveillance (CBS). • Disaggregate data analysis for these areas and populations.
Inadequate monitoring and data management (inadequate or irregular analysis of surveillance data to identify gaps and/or required corrective action; lack of mechanism and/or suboptimal quality of supportive supervision and quality checks; narrow focus on selected indicators, only numerator; misleading data due to wrong denominators or misassignment of case location)	• Review and strengthen supportive supervision through workplans, tools, dedicated funds and monitoring mechanisms. • Develop a standard set of analysis (beyond core indicators, including process components), to be used on monthly basis to identify gaps. • Disaggregate data by population, geography, gender and reporting sites. • Assess staff capacity for analysing and interpreting data; where relevant, provide training. • Institute a mechanism of surveillance data validation (10% AFP cases, ACS, etc.) • Conduct internal reviews annually and external reviews biennially. • Systematically track the implementation of recommendations from assessments and reviews conducted by and with the support of the regional office.

ACS = active case search; AFP = acute flaccid paralysis; CBS = community-based surveillance.

Table A1 (continued)

Risks	Risk mitigation strategies
Banning of surveillance activities (limiting movement, sample shipment, etc.) in areas or for periods of time by the government or anti-government groups, communities	• Such actions should be treated as emergencies with immediate escalation to the highest level for intervention. • Advocate with concerned authorities for poliovirus surveillance. • Advocate for the development of contingency plans. • Use of IHR/PHEIC provisions.
Poorly planned withdrawal/reduction of GPEI support	• Plan well for the gradual withdrawal of GPEI support (especially financial support). • Foster government ownership, i.e. allocating budget lines and increasing national contributions. • Focus on developing national technical capacity for sustainability after withdrawal of external support.
Weak surveillance workforce (insufficient surveillance workforce/rapid turnover of staff, inadequate staff capacity, work imbalance or overload, absence or poor implementation of accountability framework)	• Review the surveillance structure and fill gaps with partner support. • Ensure the movement of surveillance workforce is supported. • Reassess staff capacity and training needs and conduct capacity-building. • Plan annual refresher trainings. • Develop and implement a surveillance accountability framework. • Avoid rapid turnover by providing training and other incentives.

GPEI = Global Polio Eradication Initiative; IHR = International Health Regulations; PHEIC = Public Health Emergency of International Concern.

Very sensitive surveillance

To guide programmes in achieving very sensitive surveillance, see the minimum surveillance indicator targets (at right).

An abridged version of the top five risks to *very sensitive surveillance* is included in **Table A2**.

Minimum targets for select surveillance indicators

- NPAFP rate in outbreak-affected countries: ≥3 per 100 000 children <15 years old per year
- NPAFP rate in high-risk countries: ≥2 per 100 000 children <15 years old per year
- Stool adequacy: ≥80% of AFP cases per guidelines
- Timeliness of detection for WPV/VDPV - AFP: ≥80% of AFP cases with results available per guidelines
- ES EV detection rate: ≥80% of samples per ES site
- Adequacy of active surveillance: ≥80% of high-priority sites visits per guidelines

AFP = acute flaccid paralysis; ES = environmental surveillance; EV = enterovirus; NPAFP = non-polio acute flaccid paralysis; VDPV = vaccine-derived poliovirus; WPV = wild poliovirus

Table A2. Top five risks and risk mitigation strategies for very sensitive surveillance

Risks	Risk mitigation strategies
Poorly conducted surveillance activities (including active surveillance visits and supervisions and community-based surveillance)	• Conduct supervisory visits and monitor indicators to identify gaps. • Ensure all identified gaps are investigated to assess the extent of the issues and come up with possible solutions. • Ensure all staff (especially new staff) are appropriately trained and equipped with support material and tools. • Monitor and periodically supervise supportive supervisory visits.
Health-seeking behaviour overlooked	• Ensure national CIFs collect health-seeking behaviour data. • Systematically check all new CIFs to ensure surveillance officers fully complete forms, including health-seeking behaviour and health encounters. • Routinely analyse (and disaggregate) health-seeking behaviour data to identify corrective action or intervention.

CIF = case investigation form.

Table A2 (continued)

Risks	Risk mitigation strategies
Chronic or sporadic insecurity preventing full access for active surveillance, case investigations, supervision, training and ES sampling, where conducted	• Monitor performance at the lowest possible level and by geographic area. • Map and track access at the lowest level on a regular basis. • Monitor movements of people leaving insecure areas to plan to identify windows of opportunity for supplementary surveillance methods. • Identify appropriate alternative methods, including ring fencing/surveillance, partnering with organizations in the areas, and training local contacts for the purpose of reporting AFP cases. • Bring AFP cases out of the insecure zone for case investigation. • Disaggregate surveillance data (e.g. ethnicity, gender) when analysing. • Identify channels for negotiation, including through third parties. • Sensitize and seek support of police and armed forces as appropriate.
Inadequate demographic and geographic representativeness or coverage resulting in missed population groups and/or areas, or failure to identify and implement strategies for special populations	• Identify and map by location and type of population. Stratify data analyses. • Identify available health facilities. • Collect and analyse health-seeking behaviour. • Adjust the active surveillance network (i.e. review every six months). • Assess the need for supplementary activities in coordination with the lab. • Conduct CBS, if feasible and appropriate. • Conduct active case search, where needed. • Conduct internal and external reviews to identify and correct issues.
Failure to prepare and guide countries adequately on integration and transition	• Organize coordination meetings with national stakeholders, counterparts, departments to develop integrated tools and clear pathways for the eventual inclusion of polio surveillance functions into other programme(s). • Use lessons learned from other countries and/or exchange experiences (with global support). • Ensure the sustainability and continued measurement of polio surveillance performance.

AFP = acute flaccid paralysis; CBS = community-based surveillance; ES = environmental surveillance.

Sensitive surveillance

To guide programmes in achieving sensitive surveillance aligned with global certification standards, see the minimum targets for select surveillance indicators (at right).

Minimum targets for select surveillance indicators

- NPAFP rate: ≥1 per 100 000 children <15 years old per year
- Stool adequacy: ≥80% of AFP cases per guidelines

AFP = acute flaccid paralysis; NPAFP = non-polio acute flaccid paralysis

An abridged version of the top five risks to *sensitive surveillance* is included in **Table A3**.

Table A3. Top five risks and risk mitigation strategies for sensitive surveillance

Risks	Risk mitigation strategies
Complacency and low prioritization of polio surveillance	• Continue advocacy with the government for a strong system. • Communicate within the health department to encourage that polio investments be used to integrate with and strengthen overall VPD surveillance.
Insufficient financial resources that may negatively impact surveillance performance, especially if it is prolonged/chronic	• Conduct advocacy for surveillance as part of the MoH budget. • Request support from WHO to advocate with the MoH for continued investment and funding to minimize the risk of missed transmission and to maintain good surveillance.

MoH = Ministry of Health; VPD = vaccine-preventable disease; WHO = World Health Organization.

Table A3 (continued)

Risks	Risk mitigation strategies
Decline in ES/AFP surveillance quality when integrated into other disease surveillance systems	• Advocate with the government for a strong surveillance system. • Ensure that all institutional memory (from the polio eradication programme) is transferred to the newly responsible department. • Transfer knowledge and best practices in transition period
Shortage of laboratory staff or inadequate laboratory capacity	• Ensure continuous training of staff for polio diagnostics. • Conduct polio diagnostic trainings within other laboratory departments that can assist with testing, if needed.
Inadequate human resources	• Recommend restructuring national resources so surveillance is not negatively impacted by the transition to national MoH. • Work to build subnational capacity to support the national level.

AFP = acute flaccid paralysis; ES = environmental surveillance; MoH = Ministry of Health.

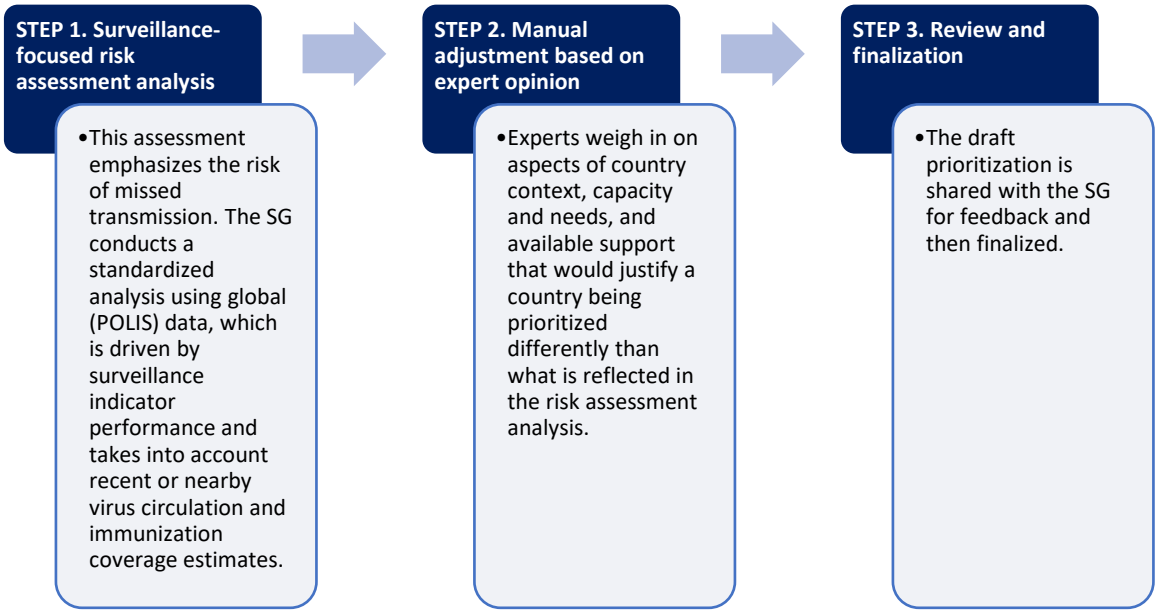
Annex B. Country prioritization

The Global Polio Eradication Initiative (GPEI) has invested heavily over decades in establishing and maintaining a robust global polio surveillance system in countries. To guide this support, the Surveillance Group (SG) maintains a country prioritization list that is updated periodically to reflect the changing epidemiology and global surveillance needs. This prioritization is designed to be flexible and adaptive, and surveillance support provided by the SG is also responsive to emerging risks. The GPEI recognizes that timely detection is critical, and global programme support for polio-free regions and countries may be warranted to prevent wide-scale transmission in areas with limited polio surveillance resources.

Country prioritization scheme

Prioritization begins with a surveillance risk assessment analysis and ranking of surveillance risk scores. These rankings drive the prioritization, but the final list is also informed by expert opinion and consideration of contextual factors that are not captured in the analysis. The stepwise process is detailed in **Fig. B1**.

Fig. B1. Country prioritization scheme to define focus countries for the GPEI eradication strategy



POLIS = Polio Information System; SG = Surveillance Group.
Source: WHO.

Support from the Surveillance Group

High-priority countries and territories include a combination of those with and without outbreaks, as well as GPEI-funded and non-GPEI-funded countries for polio surveillance. All high-priority countries and territories will likely benefit from direct technical and financial support from the SG. All medium-priority countries and territories may benefit from direct technical and financial support from the SG when requested. Watchlist countries and territories may benefit from technical support from the SG, and low-priority countries and territories will likely only need surveillance strengthening technical and financial assistance by WHO regional offices. **Table B1** details surveillance support provided by the SG to countries based on their prioritization level.

Table B1. Support available from the GPEI Surveillance Group

Priority level	Technical support	Financial support	Outbreak response support
High	• Additional surveillance desk and field reviews, monitoring of KPI/KPPI by SG and RO • Training of gender-balanced trainers • Provision of training materials, guidance documents • Environmental site reviews • Field TA	If a country or territory can demonstrate a need above and beyond FRR resources and/or base budget for VPD surveillance investments AND if regional surveillance running cost funding is insufficient, requests can be made for financing from Surveillance Contingency Funds.	The SG/RO will lead on surveillance outbreak response activities and TA by building on the routine surveillance plan in coordination with the ORPG. Countries and territories are eligible for surveillance enhancement funding and surveillance HR support through Surveillance Contingency Funds managed by the SG.
Medium	• Desk reviews, monitoring of KPI/KPPI by SG and RO • Review of surveillance performance • Provision of training materials, guidance documents • Transition: advocate for full integration of polio surveillance system into VPD surveillance • Field TA as requested by the country, with justification	If a country or territory can demonstrate a need above and beyond base budget for VPD surveillance investments AND if regional surveillance running cost funding is insufficient, requests can be made for financing from Surveillance Contingency Funds.	The SG/RO will lead on surveillance outbreak response activities and TA by building on the routine surveillance plan in coordination with the ORPG.
Low (watchlist)	• Desk reviews and monitoring of KPI/KPPI by RO • Technical support led by RO; guidance and technical support may be available from SG. • Provision of training materials, guidance documents • Transition: advocate for full integration of polio surveillance system into VPD surveillance	Additional financial needs above and beyond base budget financing for VPD surveillance should be covered by regional surveillance running costs. In rare instances, additional fund may be available.	The SG/RO will lead on surveillance outbreak response activities and TA by building on the routine surveillance plan in coordination with the ORPG.
Low	• Desk reviews and monitoring of KPI/KPPI by RO • Provision of training materials, guidance documents • Technical support by RO; guidance available by SG	Led by RO.	Most countries and territories are likely to self-finance with technical support by ORPG/SG/RO. In unique cases, additional financial support may be provided through Surveillance Contingency Funds, if justified.

FRR = financial resource requirement; HR = human resources; KPI = key performance indicator; KPPI = key performance and process indicator; ORPG = Outbreak Response and Preparedness Group; RO = regional office; SG = Surveillance Group; TA = technical assistance; VPD = vaccine-preventable disease.

Annex C. Updated key performance indicators

Polio surveillance key performance indicators (KPIs) are regularly monitored by national programmes, the regional offices of the World Health Organization (WHO), and the Surveillance Group (SG) of the Global Polio Eradication Initiative (GPEI).

Newly updated, the tables below detail KPIs from the GPEI Strategy that are reported by the SG to the GPEI Strategy Committee and the Global Commission for the Certification of Poliomyelitis Eradication (GCC) (**Table C1**), as well as AFP surveillance KPIs (**Table C2**), environmental surveillance KPIs (**Table C3**) and laboratory surveillance KPIs (**Table C4**). KPIs that were introduced in the GPSAP 2022–2024 that are no longer to be monitored are listed for reference in **Table C5**.

The KPIs are globally recommended targets. Regions and national programmes may opt to set higher targets; however, they cannot set lower targets to achieve their wild poliovirus (WPV) eradication and circulating vaccine-derived poliovirus type 2 (cVDPV2) elimination goals.

Blue italic notes highlight new or modified indicators from the GPSAP 2022–2024. Refer to the updated *Global AFP Surveillance Guidelines* to review *all indicators*, including recommended and topic-specific performance indicators. The standard period for KPI analysis is 12 months, which can be calculated by calendar year or rolling 12-month period.

Table C1. GPEI Strategy surveillance KPIs

Monitoring at country, regional and global levels						
Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
Non-polio AFP rate – subnational	Proportion of districts with ≥100 000 population aged <15 years that meet the NPAFP rate target of: • AFR, EMR, SEAR: ≥2 • AMR, EUR, WPR: ≥1 • Endemics and OB-affected: ≥3	# Districts with ≥100 000 pop <15 years that met the NPAFP target	/	# Districts with ≥100 000 pop <15 years	≥80%	Country and regional offices: Calculations to be done at the lowest administrative level in which results are informative.

AFP = acute flaccid paralysis; AFR = African Region; AMR = Region of the Americas; EMR = Eastern Mediterranean Region; EUR = European Region; NPAFP = non-polio acute flaccid paralysis; SEAR = South-East Asia Region; OB = outbreak; WPR = Western Pacific Region.

Table C1 (continued)

Monitoring at country, regional and global levels						
Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
Stool adequacy – subnational	Proportion of districts that reported ≥5 AFP cases that meet the stool adequacy target (80% of AFP cases)	# Districts with ≥5 AFP cases and stool adequacy ≥80%	/	# Districts with ≥5 AFP cases	≥80%	Country and regional offices: Calculations to be done at the lowest administrative level in which results are informative.
ES enterovirus (EV) detection rate – national *New*	Proportion of ES sites meeting EV detection sensitivity target of ≥50%	# ES sites with EV detection ≥50%	/	# ES sites	≥80%	Restrict to established routine collection sites, e.g., by restricting analysis to sites open ≥12 months with ≥10 samples collected in the last 12 months. No restriction on minimum number of sites to perform analysis.
Timeliness of detection for WPV/VDPV *Formerly "Overall detection of WPV/VDPV – System Capacity"*	Proportion of WPVs and VDPVs with final lab results within **35 days** (full laboratory capacity) or **46 days** (without full laboratory capacity) of onset for AFP cases or collection date for ES samples	# WPV and VDPV cases and ES samples that met the target days	/	# WPV and VDPV cases and ES samples	≥80%	Recommended supplemental analysis: Examine distribution, outliers and median days.

AFP = acute flaccid paralysis; ES = environmental surveillance; EV = enterovirus; NPAFP = non-polio acute flaccid paralysis; VDPV = vaccine-derived poliovirus; WPV = wild poliovirus.

Table C2. AFP surveillance KPIs

Monitoring at country, regional and global levels							
	Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
AFP surveillance quality	Non-polio AFP rate	NPAFP cases per 100 000 population aged <15 years (rate should be annualized)	# Cases discarded as NPAFP in children aged <15 years	/	# Population aged <15 years	AFR, EMR, SEAR: ≥2 AMR, EUR, WPR: ≥1 Endemics and OB-affected: ≥3	For a partial year of data, calculate annualized NPAFP rate. Recommended analysis: Stratify by sex of AFP case.
	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	# AFP cases that met the following conditions: • 2 stool specimens collected ≥24 hours apart, within ≤14 days of paralysis onset, • Both specimens received in good condition at a WHO-accredited laboratory	/	# AFP cases	≥80%	Recommended analysis: Stratify by sex of AFP case.
	Stool condition	Proportion of AFP cases with two stool specimens arriving in good condition at a WHO accredited lab	# AFP cases with two stools that arrived in good condition at a WHO accredited lab	/	# AFP cases	≥80%	
	Completeness of AFP contact sampling	Proportion of inadequate AFP cases with 3 contact samples collected	# Inadequate AFP cases with 3 contact samples collected	/	# Inadequate AFP cases	≥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	# Inadequate AFP cases with **≥60 days AND ≤90** days between onset and follow up exam	/	# Inadequate AFP cases	≥80%	Include in the calculation only inadequate cases ≥90 days since paralysis onset (follow-up exams should have been completed and received).

AFP = acute flaccid paralysis; AFR = African Region; AMR = Region of the Americas; EMR = Eastern Mediterranean Region; EUR = European Region; NPAFP = non-polio acute flaccid paralysis; OB = outbreak; WHO = World Health Organization.

Table C2 (continued)

Monitoring at country, regional and global levels							
	Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
Timeliness of detection	Timeliness of notification	Proportion of AFP cases reported within **7 days** of paralysis onset	# AFP cases with **≤7 days** between onset and notification	/	# AFP cases	≥80%	Recommended analysis: Stratify by sex of AFP case
	Timeliness of investigation	Proportion of AFP cases investigated within **48 hours** of notification	# AFP cases with **≤48 hours** between notification and investigation	/	# AFP cases	≥80%	Recommended analysis: Stratify by sex of AFP case
	Timeliness of field activities	Proportion of AFP cases with two stool specimens collected **≥24 hours** apart and within **11 days** of paralysis onset	# AFP cases with two stool specimens collected **≥24 hours** apart and **≤11 days** of paralysis onset	/	# AFP cases	≥80%	Recommended analysis: Stratify by sex of AFP case
	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	# AFP cases with **≤3 days** (domestic) or **≤7 days** (international) between stool collection and arrival at a WHO-accredited lab	/	# AFP cases	≥80%	Use second stool collection date, unless only one stool collected
	Timeliness of optimized field and shipment *Formerly "Timeliness of field and shipment activities"*	Proportion of AFP cases with samples that arrive in the lab within **14 days (domestic shipment)** or **18 days (international shipment)** of paralysis onset	# AFP cases with **≤14 days (domestic) or ≤18 days (international)** between onset and arrival at lab	/	# AFP cases	≥80%	Meaningful for all samples, including negatives
	Timeliness of detection for WPV/VDPV – AFP *Formerly "overall detection of 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	# WPV and VDPV cases that met the target days	/	# WPV and VDPV cases	≥80% of AFP cases	Recommended supplemental analysis: Examine distribution, outliers, and median days

AFP = acute flaccid paralysis; VDPV = vaccine-derived poliovirus; WHO = World Health Organization; WPV = wild poliovirus.

Table C2 (continued)

Monitoring at country and regional levels							
	Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
AFP surveillance quality	Completeness of weekly zero reporting (WZR)	Proportion of designated reporting sites submitting a zero report/weekly report for AFP cases	# Reporting sites that submitted a zero/weekly report	/	# Reporting sites	≥80%	
	Timeliness of WZR	Proportion of designated reporting sites for AFP reporting by the deadline	# Reporting sites that reported by the assigned deadline	/	# Reporting sites	≥80%	
	Adequacy of active surveillance visits	Proportion of high-priority sites visited	# High-priority sites that were visited weekly	/	# High-priority sites	≥80%	*Reduced from two calculations to one*
	AFP case encounters	Proportion of AFP cases with ≤2 health encounters between onset and notification	# AFP cases with ≤2 health encounters between onset and notification	/	# AFP cases	≥80%	Recommended analysis: Stratify by sex of AFP case

AFP = acute flaccid paralysis; WZR = weekly zero reporting.

Table C3. Environmental surveillance KPIs (analysed by site)

	Indicator	Description	Numerator	*Divided by*	Denominator	Target	Analysis notes
Monitoring at country, regional and global levels							
ES quality	ES EV detection rate	Proportion of samples where EV was detected	# ES samples that were positive for a poliovirus (paralytic or vaccine) or NPEV	/	# ES samples	≥50%	
	Condition of ES sample	Proportion of samples that arrive in the laboratory in good condition	# ES samples that arrived in good condition at a WHO-accredited lab	/	# ES samples	≥80%	
Timeliness of detection	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	# ES samples with **≤3 days** (domestic) or **≤7 days** (international) between collection and arrival at a WHO accredited lab	/	# ES samples	≥80%	
	Timeliness of detection for WPV/VDPV – ES *Formerly "Overall detection of 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	# WPV and VDPV ES samples that met the target days	/	# WPV and VDPV ES samples	≥80%	Recommended analysis: Median days
Monitoring at country and regional levels							
ES quality	ES samples collected on schedule	Proportion of ES samples collected in the assigned month	# ES samples collected in the assigned month	/	# ES samples	≥80%	*Calculation has been modified*
	ES sample collected at scheduled (hour)	Proportion of samples are collected at the recommended hour of day	# ES collected at the recommended hour of day	/	# ES samples	≥80%	

ES = environmental surveillance; EV = enterovirus; NPEV = non-polio enterovirus; VDPV = vaccine-derived poliovirus; WHO = World Health Organization; WPV = wild poliovirus.

Table C4. Laboratory surveillance KPIs (analysed by surveillance type: AFP and ES)

Monitoring at lab, regional and global levels						
Indicator	**Description**	**Numerator**	***Divided by***	**Denominator**	**Target**	**Analysis notes**
Timeliness of virus isolation results	Proportion of specimens with virus isolation results within **14 days** of receipt of AFP specimen or availability of ES concentrate at WHO-accredited lab	# Specimens with **≤14 days** between receipt at WHO-accredited lab and virus isolation results	/	# Specimens	≥80%	For ES, date of availability of ES concentrate at lab can be used as indicator start date
Timeliness of ITD results	Proportion of specimens with ITD results within **7 days** of virus isolation results	# Specimens with **≤7 days** between virus isolation results and ITD results	/	# Specimens that require ITD	≥80%	
Timeliness of shipment for sequencing	Proportion of specimens that arrive at the sequencing lab within **7 days** of ITD results	# Specimens with **≤7 days** between ITD results and arrival at sequencing lab	/	# Specimens that require sequencing	≥80%	Only applies to labs without sequencing capacity
Timeliness of sequencing results *Formerly "Timeliness of reporting PV laboratory results"*	Proportion of specimens with sequencing results available within **7 days (AFP)** or **14 days (ES)*** from arrival at the sequencing lab	# Specimens with **≤7 days (AFP)** or **14 days (ES)*** between arrival at sequencing lab and sequencing results	/	# Specimens that require sequencing	≥80%	

***** ES samples with complex mixtures may require additional time to obtain final sequencing results
AFP = acute flaccid paralysis; ES = environmental surveillance; ITD = intratypic differentiation.

Table C5. KPIs that are no longer to be monitored

Indicators				
Composite index – national	Composite index – subnational	Stool timeliness	AFP detection – system	AFP: Timeliness of reporting laboratory results (system performance)
AFP: Timeliness of reporting WPV/VDPV results (detection)	ES detection – system	ES sample collected on scheduled (week)		ES: Timeliness of reporting laboratory results

AFP = acute flaccid paralysis; ES = environmental surveillance; VDPV = vaccine-derived poliovirus; WPV = wild poliovirus.

Annex D. Timeliness of detection for WPV and VDPV

This annex provides a brief explanation of the difference between certification indicators and timeliness indicators, an overview of timeliness-of-detection targets, and a review of how direct detection (DD) techniques could impact the timeliness of detection.

Certification-standard indicators differ from timeliness-of-detection indicators

The indicator *stool adequacy* is an acute flaccid paralysis (AFP) surveillance **quality** indicator that is regularly reviewed by national, regional and global certification commissions.[34] It sets a target of 14 days between paralysis onset and the collection of two stool specimens based on findings that this period was the optimal time period in which poliovirus could be detected from stool specimens.[35]

The Global Polio Eradication Initiative (GPEI) Strategy 2022–2026 made clear the imperative to detect wild poliovirus (WPV) and circulating vaccine-derived poliovirus (cVDPV) as early as possible.[36] The Global Polio Surveillance Action Plan (GPSAP) 2022–2024 introduced a new set of indicators (referred to as timeliness-of-detection indicators) and targets to specifically monitor and improve the **speed** of WPV/VDPV detection.[37] One of those indicators is the *timeliness of field activities* that sets an 11-day target to complete field-level steps from paralysis onset to second stool collection. It is important to remember that this indicator serves a different purpose than the *stool adequacy* indicator and that all *timeliness-of-detection* indicators should only be used when assessing the speed in which activities are completed. Details for *timeliness-of-detection* indicators are available in **Annex C**.

Overview of timeliness-of-detection intervals and targets

Timeliness of detection is essential for a quick response to any poliovirus. Measured from the onset of paralysis (for cases of acute flaccid paralysis [AFP]) or from the collection of samples (for environmental surveillance [ES]) to final positive result, the timeliness-of-detection target is **≤35 days**.[38] However, differences in domestic laboratory capacity affect timeliness. Countries with full laboratory capacity (i.e. capable of performing virus isolation [VI], intratypic differentiation [ITD], and sequencing) are able to achieve this target, whereas countries without full laboratory capacity face challenges, including delays due to multiple international shipments.

Strategies for improving timeliness

To diagnose and address delays in virus detection, programmes should:

(1) routinely monitor intervals to identify delays;
(2) identify the root causes of delays;
(3) implement mitigation measures; and
(4) continue to monitor and evaluate implementation.

Detailed guidance for improving timeliness of field activities can be found in the *Global AFP Surveillance Guidelines*. For laboratory challenges, refer to *Global Polio Laboratory Network (GPLN) Guidance Papers* (**Annex I**).

[34] Stool adequacy is defined as the proportion of AFP cases with two (2) stool specimens collected ≥**24 hours** apart, both within **14 days** of paralysis onset, AND received in good condition in a WHO-accredited laboratory.
[35] Alexander JP, Gary HE, Pallansch MA, Duration of Poliovirus Excretion and Its Implications for Acute Flaccid Paralysis Surveillance: A Review of Literature, J Infect Dis 175(1): S175–82;1997 (https://doi.org/10.1093/infdis/175.Supplement_1.S176, accessed 22 December 2024).
[36] Global Polio Eradication Initiative (GPEI). Polio Eradication Strategy 2022–2026: Delivering on a promise. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/345967, accessed 22 December 2024).
[37] Global Polio Eradication Initiative (GPEI). Global Polio Surveillance Action Plan 2022–2024. Geneva: World Health Organization; 2022 (https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf, accessed 22 December 2024).
[38] The ≤35-day target is for both AFP surveillance and environmental surveillance.

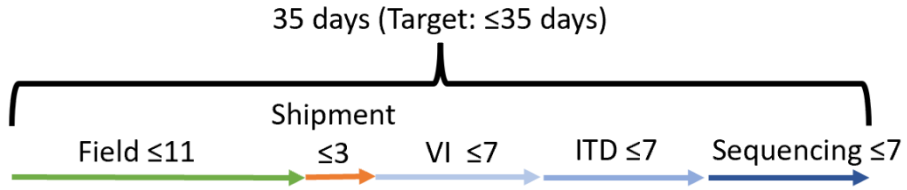
The GPSAP 2025–2026 **introduces a revised target of ≤46 days for countries without full laboratory capacity** to allow for a ≤7-day window for international shipments rather than the historical ≤3-day window.[39]

Timeliness targets are only **recommended** timeframes. Every effort should be made to expedite each step to reduce the number of days within the targets.

AFP case specimens: Countries with full laboratory capacity

Based on the timeliness indicators for field activities (11 days), specimen shipment (three days for domestic shipment) and laboratory processing (28 days),[40] the overall turnaround time is 42 days to obtain laboratory results. However, this can be compressed as samples that are negative will be confirmed during the VI step and will not proceed for further testing. Samples positive for poliovirus will generally grow within seven days during the VI step and then move onto ITD and sequencing. Therefore the **≤35-day target is achievable for positive samples in countries with full laboratory capacity** (**Fig. D1**).

Fig. D1. Timeliness of detection for positive AFP cases for countries with full laboratory capacity



ITD = intratypic differentiation; VI = virus isolation.

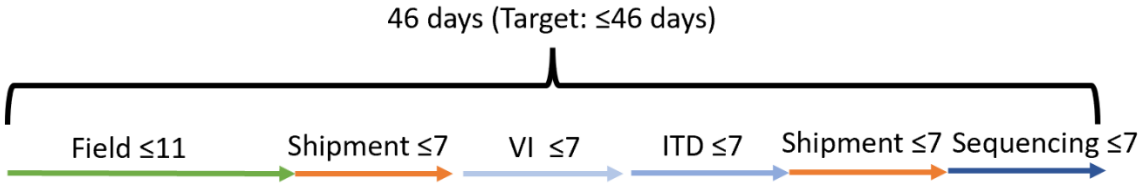
Source: WHO.

AFP case specimens: Countries without full laboratory capacity

The overall timeframe for countries without full laboratory capacity is longer due to the need for multiple international shipments. The overall timeliness indicators for field activities (11 days), first international specimen shipment (seven days), VI (14 days), ITD (seven days), second international shipment (seven days), and sequencing (seven days) yields a 53-day turnaround time for laboratory results.

This timeframe can also be compressed, as described in the previous section; negative samples will be confirmed in the VI step and will not proceed further and samples positive for poliovirus will generally grow within seven days during the VI step. Therefore the **≤46-day target is achievable for positive samples in countries without full laboratory capacity** (**Fig. D2**). Results may be received faster if samples have a maximum of one international shipment.

Fig. D2. Timeliness of detection for positive AFP cases for countries without full laboratory capacity



ITD = intratypic differentiation; VI = virus isolation.

Source: WHO.

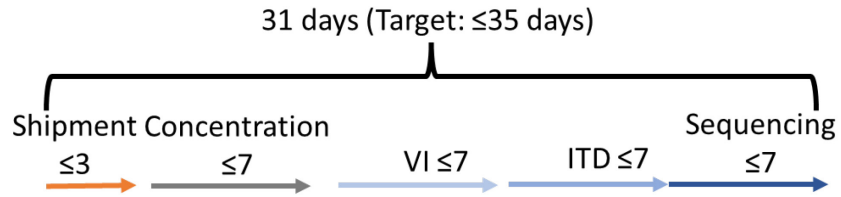
[39] The ≤46-day target is for both AFP surveillance and environmental surveillance.
[40] Laboratory processing time is 28 days: VI (≤14 days), ITD (≤7 days) and sequencing (≤7 days).

ES samples: Countries with full laboratory capacity

ES samples do not have a field investigation component therefore the shipment interval is defined as the time between the collection of samples and their arrival at the laboratory (three days for domestic shipment). ES samples do have a separate concentration step (seven days). While the targets for VI (14 days) and ITD (seven days) are the same as specimens from AFP cases, ES samples may be more complicated to sequence and require a longer timeframe (14 days) due to the presence of poliovirus mixtures.

The overall timeliness target for an ES sample – from shipment to the laboratory, to concentration, to laboratory testing – results in a 45-day timeframe. However, negative samples will be confirmed during the VI step and will not proceed for further testing. For **positive ES samples**, the virus isolation step may be reduced to at most seven days and under a best-case scenario, sequencing may also be at most seven days. Therefore the **≤35-day target is achievable for positive ES samples for countries with full laboratory capacity** (**Fig. D3**).

Fig. D3. Timeliness of detection for positive ES samples for countries with full laboratory capacity

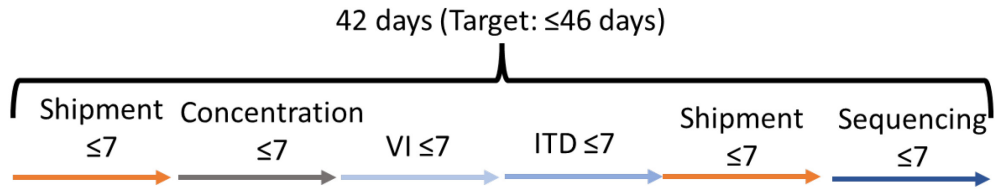


ITD = intratypic differentiation; VI = virus isolation.
Source: WHO.

ES samples: Countries without full laboratory capacity

The overall timeframe for an ES sample in countries without full laboratory capacity is longer due to the need for one to two international shipments. The overall timeliness target is 56 days, including a second international shipment (seven days) to a sequencing laboratory. As previously mentioned, it is possible to further compress the timeline: negative samples will be confirmed during the VI step and will not proceed for further testing. For **positive ES samples**, the virus isolation step may be reduced to at most seven days and under a best-case scenario, sequencing may also be at most seven days. Therefore the **≤46-day target is achievable for positive ES samples for countries without full laboratory capacity** (**Fig. D4**). Results may be received faster if samples have a maximum of one shipment.

Fig. D4. Timeliness of detection for positive ES samples for countries without full laboratory capacity



ITD = intratypic differentiation; VI = virus isolation.
Source: WHO.

The impact of direct detection on timeliness of detection

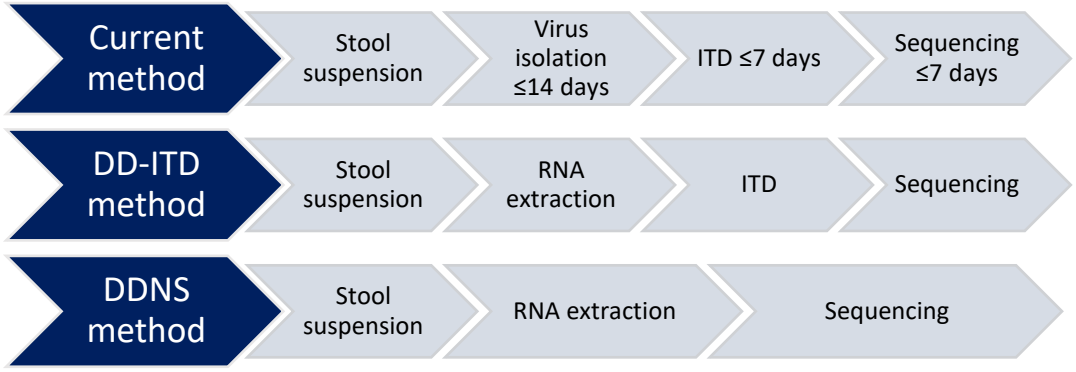
Two direct detection (DD) methods for testing stool specimens are currently being validated.

- In **direct detection with intratypic differentiation (DD-ITD)**, the virus isolation step is eliminated and samples are extracted and tested using ITD, followed by sequencing of some positive samples; Sabin 1 and 3 are not sequenced.

- In **direct detection by nanopore sequencing (DDNS)**, the virus isolation and ITD testing steps are eliminated, and all samples are extracted and sequenced, provided amplification is successful.

The current polio diagnostic algorithm for AFP cases includes three key steps (VI, ITD and sequencing), with the first step (virus isolation) screening negative samples, which are not processed by the final two steps. Both DD methods remove virus isolation (**Fig. D5**). This could save seven to 14 days in laboratory processing time for positive samples. However, because the volume of samples that must be tested by ITD and/or sequenced will increase due to the removal of the screening by virus isolation, the target of seven days for sequencing may need to be increased.

Fig. D5: Poliovirus diagnostic algorithms by current method and DD methods under validation



DD = direct detection; DD-ITD = direct detection with intratypic differentiation; DDNS = direct detection by nanopore sequencing; ITD = intratypic differentiation; RNA = ribonucleic acid.

Source: WHO.

Once DD methods are validated, the Global Polio Laboratory Network (GPLN) will establish timeliness targets for each of the new steps: ribonucleic acid (RNA) extraction, ITD (for DD-ITD), and sequencing.

Annex E. Accountability framework for the GPSAP 2025–2026

Implementation for each objective will be the responsibility of all levels within the polio surveillance programme, with specific responsibilities described below. When provided by regional offices of the World Health Organization (WHO), additional details are included. Completion of tasks will be monitored by WHO regional offices and headquarters and partners of the Global Polio Eradication Initiative (GPEI).

Table E1. Responsibility and accountability for implementing activities for Objective 1 (AFP surveillance)

Priority countries and territories	Regional / subregional	Global
Major Activity 1: Implement targeted activities to identify challenges and solutions to subnational surveillance gaps		
• Collect and conduct disaggregated data analyses by high-risk status, sex, HSB and other criteria to pinpoint reasons for gaps and implement strategies to overcome them. • Audit the AFP surveillance system, looking specifically at subnational performance. • Review, update active surveillance network every six (6) months. • Monitor active surveillance visits by priority sites.	• Support countries to identify and implement strategies to address subnational gaps. • Audit the AFP surveillance system, looking specifically at subnational performance. High-priority countries and territories should be audited annually. • Region-specific activities: ○ *AFRO & EMRO to develop AFP dashboard and conduct regional assessment of gaps to improve sensitivity.* ○ *EMRO to collect, review and provide feedback to countries on reporting network and active surveillance visits.* ○ *SEARO to conduct in-depth surveillance review in one (1) country.* ○ *WPRO to support four (4) countries to strengthen CBS and active surveillance (3) and active surveillance only (1*).	• Engage with and support regions and countries to address subnational gaps. • Develop and disseminate guidance for conducting comprehensive surveillance audits. • Develop and disseminate guidance for conducting active AFP surveillance in capital cities.
Major Activity 2: **Improve timeliness for field activities and specimen transport**		
• Identify reasons for and address delays through every step of field activities and specimen transport. • Improve the collection and utilization of HSB to improve timeliness of notification. • Explore alternatives for stool specimens transport where delays are observed, including integration of specimen transport with other programmes. • Transition nongovernmental support for specimen shipment tracking to governments and conduct impact analyses at six (6) months and one (1) year.	• Support and monitor countries to address delays in field activities and specimen transport. • Monitor timeliness of sample transport and explore alternative methods where delays are observed. ○ *WPRO to provided focused support to three (3) countries to improve timeliness of detection.* • Work with countries to optimize sample shipment to laboratories in other countries. • Assist countries to transition specimen shipment tracking to government and conduct impact analyses at six (6) months and one (1) year.	• Support regions and countries to identify and implement strategies to improve timeliness of field activities and specimen transport.

AFP = acute flaccid paralysis; AFRO = Regional Office for Africa; CBS = community-based surveillance; EMRO = Regional Office for the Eastern Mediterranean; HSB = health-seeking behaviour; SEARO = Regional Office for South-East Asia; WPRO = Regional Office for the Western Pacific.

Table E1 (continued)

Priority countries and territories	Regional / subregional	Global
Major Activity 3: **Plan and implement systematic surveillance sensitivity and performance assessments**		
• Review national and subnational KPIs, monthly. • Conduct internal surveillance reviews annually and biennial external surveillance reviews. • Develop surveillance performance improvement plans to track and address the identified gaps.	• Monitor and provide feedback on country surveillance performance, including subnational indicators, quarterly. • Plan and implement systematic surveillance performance assessments. ○ *Desk and field reviews will be conducted in countries (n) in AFRO (10), EMRO (8), EURO (3), PAHO (10), SEARO (11), and WPRO (3).* • Track progress of country implementation of recommendations from surveillance performance reviews on a quarterly basis and report status to global.	• Monitor surveillance performance. • Provide technical support for implementation of desk and field reviews. • Update global polio desk and field review templates to include VPD surveillance, and train regional teams on the process • Develop guidance for country-level documentation of evidence of a sensitive AFP surveillance system.
Major Activity 4: Facilitate building and sustaining a skilled, gender-balanced workforce		

• Develop two-year plan for capacity-building activities in coordination with regional offices.
• Conduct comprehensive AFP surveillance trainings for all surveillance officers and AFP focal points, using *AFP Surveillance Training* package and online training modules.
• Identify opportunities to integrate AFP and VPD or other surveillance trainings.
• Update national field surveillance guidelines to ensure alignment with regional and global AFP surveillance guidelines.
	• Support countries for capacity-building planning, implementation and monitoring of surveillance trainings.
	  ○ *AFRO to identify local solutions to sustain trained workforce, train stakeholder (e.g. STOP, NGOs) on new GPSAP, support capacity-building initiatives six (6) countries, and regional training-of-trainers in 47 countries.*
	  ○ *Trainings will be conducted in countries (n) in EURO (3), PAHO (10), WPRO (6). Unspecified (n) in EMRO, SEARO.*
	• Identify opportunities to integrate AFP and VPD or other surveillance trainings.
	• Disseminate widely the *AFP Surveillance Training* package and online training modules.
	• Update regional surveillance guidelines to ensure alignment with *Global AFP Surveillance Guidelines*.
		• Support implementation of surveillance trainings upon request.
		• Advertise and host the *AFP Surveillance Training* package and online training modules.
		• Update the *Global AFP Surveillance Guidelines*.

Major Activity 5: **Integrate AFP surveillance with other disease surveillance systems where appropriate**		
• In countries under polio transition, fully integrate AFP surveillance activities with other health surveillance systems. • Monitor subnational surveillance performance during and upon completion of integration. • Advocate with GPEI partners to MoH to ensure integration implementation and maintenance of high-quality polio surveillance *(for countries receiving GPEI funding)*. • Identify areas of convergence and explore synergy between AFP and VPD surveillance and aim for AFP and VPD surveillance integration.	• Support countries to conduct integrated surveillance activities. • Track and monitor surveillance performance indicators during integration and intervene when needed. • Advocate with GPEI partners to MoHs to ensure integration implementation and maintenance of high-quality polio surveillance *(for countries receiving GPEI funding)*. ○ *SEARO to advocate for sustainable government funding for integrated VPD surveillance in five (5) transition countries.*	• In coordination with regions, provide guidance to countries, including assessment criteria for integration based on/aligned with WHO transition plans. • Advocate for sustainable funding among global partners.

AFP = acute flaccid paralysis; AFRO = Regional Office for Africa; EMRO = Regional Office for the Eastern Mediterranean; EURO = Regional Office for Europe; GPEI = Global Polio Eradication Initiative; GPSAP = Global Polio Surveillance Action Plan; KPI = key performance indicators; MoH = Ministry of Health; NGO = nongovernmental organization; PAHO = Pan American Health Organization; SEARO = Regional Office for South-East Asia; STOP = Stop Transmission of Polio; VPD = vaccine-preventable disease; WHO = World Health Organization; WPRO = Regional Office for the Western Pacific.

Table E2. Responsibility and accountability for implementing activities for Objective 2 (environmental surveillance)

Priority countries and territories	Regional / subregional	Global
Major Activity 1: Improve and maintain the sensitivity of ES sites		

• Monitor ES site performance and adherence to *Global ES Field Guidance*; implement necessary corrective action.
• Conduct field reviews for underperforming sites; modify or close them in a timely manner.
• Conduct refresher trainings on ES at least annually as part of national and subnational AFP/VPD surveillance trainings.
	• Develop a plan for monitoring adherence to the *Global ES Field Guidance*; support implementation of corrective actions.
	• Conduct desk review of ES network every six (6) months.
	  ○ *PAHO to support quarterly assessments in two (2) countries.*
	  ○ *WPRO to support ES sensitivity assessments in six (6) countries; onsite visits to four (4) countries.*
	• Support capacity-building activities and ES field reviews, as needed.
	  ○ *AFRO to build country capacity to investigate/close underperforming sites*
	  ○ *EMRO to support/track field investigations and interventions for ES sites with no virus isolated for >2 consecutive times.*
	  ○ *EURO to conduct joint ES and EV surveillance reviews.*
	  ○ *PAHO to conduct annual refresher training in two (2) countries.*
	  ○ *SEARO to conduct field reviews of underperforming sites.*
		• Develop a plan for monitoring adherence to the *Global ES Field Guidance*.
		• Support capacity-building activities and ES field reviews, as needed.
		• Support desk reviews and corrective actions identified by regional, subregional and country partners.
		• Evaluate the use of technology and new methods for ES sample collection and site selection.
		• Develop and implement an assessment tool for scoring ES site sensitivity and performance.

Major Activity 2: Optimize ES based on country context, with emphasis on high-risk areas		

• Routinely assess adequacy of ES network coverage relative to minimum standards, focusing on coverage of high-risk areas.
• Expand ES to additional areas, as needed.
	• Conduct analysis of current ES footprint and identify needs for the short and long term.
	  ○ *AFRO to map major town/cities for optimal ES footprint.*
	• Support countries to meet minimum standards and optimize their ES networks.
	  ○ *ES optimization will be supported countries (n) in EURO (Caucasus and Central Asian Republics) and WPRO (4).*
	• Explore initiation of ES in more countries.
	  ○ *Explore in countries (n) in EMRO (6), PAHO (1), SEARO (1) and WPRO (2).*
		• Update minimum standards for ES.
		• Conduct assessment of current ES footprint and identify needs for the short and long term.

Major Activity 3: Improve the shipment timeliness and condition of ES samples		

• Monitor timeliness indicators to identify bottlenecks and guide corrective actions.
• Where appropriate and feasible, conduct real-time sample monitoring.
• Explore alternative shipping of samples.
	• Monitor timeliness indicators and provide feedback to countries.
	• Explore alternative transportation or laboratory options in places with delays.
	  ○ *EMRO to streamline shipment in five (5) countries.*
	  ○ *PAHO to explore alternative international shipment options.*
	  ○ *WPRO to monitor shipments in three (3) countries.*
		• Monitor timeliness indicators and provide feedback to regions.
		• Explore alternative transportation or laboratory options in places with delays.

AFP = acute flaccid paralysis; AFRO = Regional Office for Africa; EMRO = Regional Office for the Eastern Mediterranean; ES = environmental surveillance; EV = enterovirus; EURO = Regional Office for Europe; PAHO = Pan American Health Organization; SEARO = Regional Office for South-East Asia; VPD = vaccine-preventable disease; WPRO = Regional Office for the Western Pacific.

Table E2 (continued)

Priority countries and territories	Regional / subregional	Global
Major Activity 4: Prepare for integration with other wastewater-detectable pathogens		

• Explore integration opportunities with wastewater surveillance programmes.
• Document examples of polio ES integration.
	• Explore integration opportunities with wastewater surveillance programmes.
	  ○ *SEARO to support exploration.*
	  ○ *WPRO to support exploration in two (2) countries and monitor impact on polio ES in two (2) countries*
	• Support countries to document examples of polio ES integration.
		• Explore integration opportunities with wastewater surveillance programmes.
		• Document the principles required for polio ES to be successfully integrated into wastewater surveillance.

Major Activity 5: Improve and standardize the ES data pipeline, from collection to use		
• Implement eTools for ES sample collection and supervision. • Maintain or develop processes for transferring required data elements appropriately. • Leverage available technologies for assessing ES site catchment area to improve data for action.	• Support implementation of eTools for sample collection and supervision. ○ *WPRO to support eTools in 5 countries* • Support countries to be able to transfer required data elements appropriately. • Support countries to access and use ES site catchment area information to guide data for action.	• Support implementation of eTools for sample collection and supervision • Update minimum set of data elements for each country to provide to the regional/global level. • Develop and disseminate guidance on how to access and use ES site catchment area information to guide data for action.

ES = environmental surveillance; eTools = electronic tools; SEARO = Regional Office for South-East Asia; WPRO = Regional Office for the Western Pacific.

Table E3. Responsibility and accountability for implementing activities for Objective 3 (iVDPV surveillance)

iVDPV at-risk countries	Regional	Global
Major Activity 1: Support and expand iVDPV surveillance in countries with existing systems		

• Scale up field implementation (e.g. network expansion) according to proposed updated plan and/or review.
• In coordination with RO, organize a review one (1) year after iVDPV surveillance initiation.
• Monitor KPI, quarterly.
	• Support network expansion, as needed.
	  ○ *AFRO to continue supporting activities in two (2) countries.*
	  ○ *EMRO to review and systematize iVDPV surveillance in four (4) countries.*
	  ○ *EURO to continue advocating for routine screening of PID patients for poliovirus shedding.*
	  ○ *PAHO to review iVDPV surveillance status in two (2) countries.*
	  ○ *WPRO to support ongoing activities and possible network expansion in one (1) country.*
	• Monitor KPIs quarterly.
	• Organize a review one (1) year after iVDPV surveillance initiation and provide support as needed.
		• Support network expansion, as needed.
		• Monitor KPIs quarterly.
		• Support assessment of field implementation one (1) year after iVDPV surveillance initiation.
		• Update global desk and field review templates to include iVDPV surveillance.
		• Provide technical support, as needed.

AFRO = Regional Office for Africa; EMRO = Regional Office for the Eastern Mediterranean; EURO = Regional Office for Europe; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; KPI = key performance indicator; PID = primary immunodeficiency disorder; PAHO = Pan American Health Organization; RO = regional office; WPRO = Regional Office for the Western Pacific.

Table E3 (continued)

iVDPV at-risk countries	Regional	Global
Major Activity 2: Implement iVDPV surveillance in at least five additional at-risk countries		
• Sensitize governments. • Identify sentinel sites. • Set up iVDPV surveillance.	• Sensitize, identify and liaise with at-risk countries for iVDPV and promote iVDPV surveillance. ○ *Establishing iVDPV surveillance will be explored in countries (n) in EMRO (1), EURO (at least 1), PAHO (at least 1), WPRO (2).* • Brief RCC. • Provide technical support.	• Continue to refine the iVDPV risk model. • Organize webinars to support sensitization activities, as requested. • Provide technical support.
Major Activity 3: Ensure iVDPV information system is available with regular and systematic reporting of data to the GPEI		

• Using the iVDPV surveillance module, share data with WHO regional offices and headquarters as per the data-sharing agreement.
• Upload historical iVDPV surveillance data in POLIS.
	• Ensure an iVDPV information system is available for participating countries.
	  ○ *AFRO and EMRO to coordinate with participating countries to use iVDPV information system module for data sharing.*
	  ○ *Support for streamlining data management will be conducted in countries (n) in PAHO (2) and SEARO (unspecified).*
	• Ensure iVDPV surveillance data are shared with headquarters as per the data-sharing agreement.
		• Ensure an iVDPV information system is available.
		• Provide technical support.
		• Report globally on iVDPV surveillance, monthly.

Major Activity 4: Set up a system for regular coordination with regional societies for PIDs and immunology networks		
• If a national society exists, sensitize and coordinate engagement efforts.	• Identify, map and coordinate with national and regional societies on immunology. ○ *WPRO to conduct awareness session for RCC and NCCs and explore engagement with PID societies.*	• Identify, map and coordinate with national, regional and global societies on immunology.
Major Activity 5: Coordinate with research groups on antiviral therapies, monoclonal antibodies and rapid diagnostics		
• With WHO headquarters, facilitate access to antivirals by coordinating between treating physicians and the antiviral manufacturer, where appropriate.	• Brief participating countries on the compassionate use of antiviral therapy. • Support coordination of access to antiviral therapy for PID patients.	• Provide updates to regions on the development of antiviral therapies, monoclonal antibodies and PID diagnostics tests. • Coordinate access to antiviral therapies for PID patients through antiviral manufacturer.

AFRO = Regional Office for Africa; EMRO = Regional Office for the Eastern Mediterranean; EURO = Regional Office for Europe; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; NCC = National Certification Committee; PAHO = Pan American Health Organization; PID = primary immunodeficiency disorder; POLIS = Polio Information System; RCC = Regional Commission for the Certification of Poliomyelitis Eradication; RO = regional office; SEARO = Regional Office for South-East Asia; WHO = World Health Organization; WPRO = Regional Office for the Western Pacific.

Table E4. Responsibility and accountability for implementing activities for Objective 4 (laboratory surveillance)

National laboratories	Regions	Global
Major Activity 1: Strengthen oversight of quality management systems in all GPLN laboratories		
• Notify WHO regional offices and headquarters about any changes that warrant mandatory onsite visit per GPLN guidelines (e.g. new lab director/managers, new infrastructure). • Participate in regional trainings.	• Monitor regional two-year accreditation plans (for NPLs). • Conduct at least one regional training for GPLN laboratories. • Support the use of GPLN's accreditation procedures and comprehensive documentation of laboratory quality management systems. • Track rollout and the proportion of PTs administered.	• Monitor two-year accreditation plans for global (for GSLs and RRLs) and regional labs (for NPLs). • Track proportion of successfully revised accreditation checklists. • Develop guidance for in-house validation of accepted methods. • Ensure application of audit procedures and comprehensive documentation of laboratory quality systems. • Provide oversight of regional trainings. • Ensure that laboratory quality management systems are aligned with WHO and GPLN standards. • Track proportion of PTs administered globally in 2025 and 2026.
Major Activity 2: Sustain & strengthen processing capacity in all GPLN laboratories, prioritizing those serving high-priority countries and territories		
• Participate in capacity-building on molecular procedures. • Flag problems and gaps (e.g. nonconforming events) associated with ordering and procuring equipment and reagents.	• Summarize status of the region's contingency plans and work to maintain surge capacity. • Support capacity-building on molecular procedures across the GPLN, through trainings and procurement. • Support procurement and availability of essential supplies. • Monitor status of regional hubs (stockpiles). ○ *AFRO to complete hub construction for two national laboratories and refurbish other national laboratories to increase workspace.*	• Summarize status of all regional contingency plans; support surge capacity-building. • Support capacity-building on molecular procedures across the GPLN through trainings and procurement. • Monitor status of global hubs (stockpiles) and long-term agreements with manufacturers.

AFRO = Regional Office for Africa; GPLN = Global Polio Laboratory Network; GSL = global specialized laboratory; NPL = national polio laboratory; PT = proficiency testing; RRL = regional reference laboratory; WHO = World Health Organization.

Table E4 (continued)

National laboratories	Regions	Global
Major Activity 3: Continue the assessment of new or adopted methodologies and algorithms and implement after validation, prioritizing those serving high-priority countries and territories		

• Summarize the status, capacity and performance for each new methodology being pilot/parallel tested and/or that has been implemented.	• Monitor progress in onboarding new sequencing laboratories in the region.
	• Monitor completion of DD pilots/parallel testing in selected laboratories.
	• Develop regional plans for rollout of accepted and recommended methodology and monitor completion.
	  ○ *AFRO to extend sequencing capacity to six (6) additional GPLN laboratories and conduct sequencing training in four (4) of these labs; continue to monitor DD-ITD pilot testing; monitor DDNS pilot testing in 10 national laboratories and commence parallel testing; and facilitate implementation of QA/QC activities by GSL GPLN accreditation for the laboratories.*
	  ○ *EMRO to expand sequencing and environmental surveillance capacity to at least three (3) additional laboratories in the region; and continue supporting pilot testing of DD-ITD and DDNS.*
	  ○ *EURO to continue building awareness on DD and conduct training on DDNS in six (6) countries.*
	  ○ *PAHO to support implementation of Sanger sequencing in four (4) GPLN laboratories.*
	  ○ *SEARO to strengthen sequencing capacity in two (2) additional GPLN laboratories and pilot test DDNS method in three (3) GPLN laboratories.*
	  ○ *WPRO to support strengthening and implementing sequencing in two (2) GPLN laboratories and support rollout of DD and DDNS in six (6) GPLN laboratories and monitor performance.*
		• Collate information from all regions on progress with onboarding new sequencing laboratories.
		• Oversee the assessment process for new methodologies and algorithms of testing as per GPLN's Guidance Paper 7.
		• SWG decision on DD method and acceptance or recommendation is communicated two (2) months after dossier submission.
		• (i) Provide direct oversight of QA/QC activities and (ii) plan and implement accreditation exercises for all laboratories implementing new methodologies (DD and sequencing) in relation with GPLN-designated GSLs.
		• SWG report and recommendations are available on QA/QC systems proposed by DD method providers two (2) months after submission.
		• Compile and summarize status of all regional DD pilot testing.
		• Compile regional plans for rollout of accepted and recommended methodology.

Major Activity 4: Continue to work with broader surveillance networks, including other VPDs, and document integration activities		
• Summarize status of integration activities within the laboratory.	• Document best practices of polio integration with VPD surveillance (all regions). • Monitor pilot projects that integrate VPDs (measles, rotavirus) and polio activities (such as EQA panels and reagents, sequence data management). • One selected region to pilot the integrated VPD joint accreditation exercise.	• Validate a concept note for integration of VPD surveillance networks, pilot test in ≥ two (2) countries. • Monitor and collate integration projects in regions. • Monitor effectiveness of harmonization of EQA panels and reagent management (measles and polio). • Organize and participate in PoNS and MeaNS/RubeNS Steering Committee meetings at least once per year. • Support pilot testing of VPD joint accreditation exercises in two (2) countries.

AFRO = Regional Office for Africa; DD = direct detection; DD-ITD = direct detection with intratypic differentiation; DDNS = direct detection by nanopore sequencing; EMRO = Regional Office for the Eastern Mediterranean; EQA = external quality assessment; EURO = Regional Office for Europe; GPLN = Global Polio Laboratory Network; GSL = global specialized laboratory; MeaNS = measles nucleotide surveillance (database); QA = quality assurance; QC = quality control; PAHO = Pan American Health Organization; PoNS = poliovirus nucleotide sequence (database); RubeNS = rubella nucleotide surveillance (database); SEARO = Regional Office for South-East Asia; SWG = (ad hoc) Small Working Group; VPD = vaccine-preventable disease; WPRO = Regional Office for the Western Pacific.

Table E4 (continued)

National laboratories	Regions	Global
Major Activity 5: Develop a strategy for the long-term sustainability of core GPLN functions		
• Identify and communicate gaps in each laboratory's capacity to maintain core GPLN functions.	• Collect and summarize outputs of laboratory self-assessment to maintain core GPLN functions.	• Develop and implement guiding principles for sustainably maintaining key GPLN functions, including vision and orientation on the structure and functions of GPLN. • Advocate for financial sustainability and maintenance of GPLN.

GPEI = Global Polio Eradication Initiative; GPLN = Global Polio Laboratory Network.

Table E5. Responsibility and accountability for implementing activities for Objective 5 (data and information management)

Countries	Regional / subregional	Global
Major Activity 1: Ensure POLIS includes all data elements required for programmatic purposes and activities (including certification)		
• Share data required for POLIS functions. • Implement iVDPV surveillance module that is linked to POLIS *(only in countries participating in iVDPV surveillance)*. • In coordination with RO, explore linkage between additional data sources and POLIS, using dedicated pipelines. • Implement data quality checks and respond on time to feedback from the region and headquarters.	• Identify and maintain data sources required for POLIS functions. • Develop/maintain current analytical capabilities with a focus on polio surveillance core indicators. • Implement data quality checks to monitor source statistics for key metrics needed for certification. • Support iVDPV surveillance module implementation for participating countries. • Explore and/or link additional regional office data sources with POLIS. • Coordinate with global level to standardize and reconcile analytic pipelines. • Provide feedback to countries and institutionalize systems to address quality issues at the country level.	• Identify and validate key metrics and develop data verification protocols and implement automated tools. • Develop/maintain current analytical capabilities with a focus on polio surveillance core indicators. • Implement data quality checks to monitor source statistics for key metrics. • Update and support implementation of iVDPV information system modules. • Link POLIS with additional regional office data sources. • Coordinate with regional offices to standardize and reconcile analytic pipelines. • Operationalize a ticketing system.

iVDPV = immunodeficiency-associated poliovirus; POLIS = Polio Information System; RO = regional office.

Table E5 (continued)

Countries	Regional / subregional	Global
Major Activity 2: Make improvements to/modernize regional and country information systems		

• Conduct infrastructure assessment and update existing policies and procedures to align with WebIFA.
• Conduct pilot testing of WebIFA in select provinces/regions/district to identify potential issues and gather user feedback.
• Customize WebIFA to meet specific local requirements and workflows including translating the user interface and documentation into local languages.
• Provide WebIFA trainings at province/district level and provide implementation support.
• Support and provide linkages to POLIS via xMART using APIs for countries with non-WebIFA systems.
	• Conduct information system assessment to determine existing system in countries and possibility of rolling out Web-IFA.
	• Support WebIFA rollout in national laboratories and surveillance (AFP, ES, PID/iVDPV) and address feedback on issues arising from the pilot testing.
	  ○ *AFRO to roll out WebIFA in eight (8) countries.*
	  ○ *EMRO to roll out WebIFA across the region and where applicable, integrate with available country information system.*
	  ○ *EURO to finalize full integration with WIISE.*
	  ○ *PAHO to provide technical support for implementation of the new VPD Smart information system.*
	  ○ *SEARO to integrate POLIS with existing country information systems.*
	  ○ *WPRO to develop Integrated Vaccine-Preventable Diseases Surveillance System (IVSS).*
	• Support continued data sharing with POLIS via xMART for countries with non-WebIFA systems.
		• Support implementation of WebIFA (rollout plan, trainings).
		• Create pipelines in xMART to link POLIS and existing systems in countries/regions that will not implement WebIFA.

Major Activity 3: Strengthen country- and regional-level data management and analytical capacity		

• Further build capacity within subnational levels based on programme priorities and needs.
• Conduct systematic reviews (e.g. desk and field reviews) using POLIS analytic functions, as needed.
	• Conduct training assessment of countries to identify their capacity needs.
	• Build country capacity on data use.
	• Strengthen and support analytic capacity in countries to implement systematic reviews; support reviews in countries with limited capacity
	• Region-specific activities:
	  ○ *AFRO to develop regional AFP surveillance dashboard.*
	  ○ *EMRO to capacitate countries to use surveillance dashboards, WebIFA, POLMIS and POLIS.*
	  ○ *PAHO and EURO to continue periodic reporting of AFP surveillance data to GPEI, and develop and maintain current analytical capabilities, focusing on AFP surveillance KPIs.*
	  ○ *WPRO to develop country-level data dashboards.*
		• Conduct capacity-building trainings/workshops for regions based on their needs.
		• Support the regions for capacity-building of high-priority countries and territories, as needed.
		• Strengthen and support analytic capacity in regions to implement systematic reviews; support/lead reviews in regions with limited capacity.
		• Develop user manuals for WebIFA and POLIS.

AFP = acute flaccid paralysis; AFRO = Regional Office for Africa; API = application programming interface; EMRO = Regional Office for the Eastern Mediterranean; ES = environmental surveillance; EURO = Regional Office for Europe; iVDPV = immunodeficiency-associated vaccine-derived poliovirus; IVSS = Integrated Vaccine-Preventable Diseases Surveillance System; KPI = key performance indicator; PAHO = Pan American Health Organization; PID = primary immunodeficiency disorder; POLMIS = Polio Management Information System; POLIS = Polio Information System; SEARO = Regional Office for South-East Asia; VPD = vaccine-preventable disease; WebIFA = web-based information for action (system); WIISE = WHO Immunization Information System; WPRO = Regional Office for the Western Pacific.

Table E5 (continued)

Countries	Regional / subregional	Global
Major Activity 4: Prepare POLIS for a future transfer or integration with other data and information management systems		
• Support in systems mapping process to ensure linkages and features utilization.	• Support countries with mapping system process and key features	• Package key features of POLIS in self-contained and low-maintenance environments. • Conduct process mapping and present key findings with recommendations to the POLIS Steering Committee. • In collaboration with regions, create a sustainability report and process mapping.
Major Activity 5: Increase collaboration with global stakeholders to foster integration, standardization, transparency and inter-regional coordination		
• Participate in POLIS COP. • Conduct quarterly data harmonization meetings with subnational offices.	• Participate in POLIS COP. • Participate in semi-annual meetings between headquarters and regional information system managers. • Support the semi-annual meeting with global stakeholders. • Hold semi-annual meetings with IVB and WHE programmes to strengthen collaboration.	• Strengthen POLIS COP. • Incorporate POLIS into STOP trainings. • Hold semi-annual meetings with regional information system managers and stakeholders. • Hold quarterly meetings with POLIS users. • Hold quarterly coordination meetings with IVB and WHE. • Hold semi-annual POLIS Steering Committee meetings.

COP = community of practice; IVB = Immunization, Vaccines and Biologicals (WHO department); STOP = Stop Transmission of Polio; POLIS = Polio Information System; WHE = WHO Health Emergencies Programme; WHO = World Health Organization.

Table E6. Responsibility and accountability for implementing activities for Objective 6 (management and accountability)

Countries	Regional / subregional	Global
Major Activity 1: Develop and track GPSAP implementation in high-priority countries and territories		

• Develop and implement surveillance strengthening plans that align with recommendations from GPSAP 2025–2026.
• Report on progress of surveillance plans to regional offices, quarterly.
	• Support countries to develop surveillance strengthening plans that align with GPSAP 2025–2026.
	  ○ *AFRO to support implementation of GPSAP in all countries with priority to high-risk countries and non-outbreak countries.*
	  ○ *EMRO to organize a webinar on GPSAP with all high and medium priority countries and territories, support development of action plan.*
	  ○ *WPRO to support implementation and monitoring of surveillance strengthening plan in six (6) countries.*
	• Report on GPSAP 2025-2026 implementation to the SG semi-annually.
	  ○ *EMRO to organize quarterly follow-up calls and reporting on GPSAP activities.*
		• Support countries and regions to develop surveillance strengthening plans that align with GPSAP 2025–2026.
		• Report on GPSAP implementation to GPEI SC semi-annually.

AFRO = Regional Office for Africa; EMRO = Regional Office for the Eastern Mediterranean; GPEI = Global Polio Eradication Initiative; GPSAP = Global Polio Surveillance Action Plan; SC = Strategy Committee; WPRO = Regional Office for the Western Pacific.

Table E6 (continued)

Countries	Regional / subregional	Global
Major Activity 2: Monitor surveillance risk and performance in priority countries and territories		
• Monitor surveillance performance quarterly using KPIs and KPPIs. • Assess polio surveillance performance through systematic and standardized performance assessments. • Track implementation of recommendations from performance assessments to improve surveillance.	• Monitor surveillance performance semi-annually. • Support countries to assess polio surveillance performance. • Support countries to track implementation of recommendations to improve surveillance.	• Monitor surveillance performance semi-annually. • Support regions and countries to assess polio surveillance performance. • Support regions and high-priority countries and territories to track implementation of recommendations to improve surveillance.
Major Activity 3: Monitor and support the workplan of data systems, GPLN and regions		
• Map and ensure sufficient HR to maintain surveillance activities within the region. • Regional laboratory coordinator to provide quarterly updates to GPLN coordinator on laboratory workstreams.	• Map and ensure sufficient HR to maintain surveillance activities • GPLN to provide quarterly updates to the SG on laboratory workstreams • Data Information System team to provide quarterly updates to the SG on WebIFA roll out and other workstreams.	
Major Activity 4: Monitor and support integration of polio surveillance activities		

• Lead efforts and advocate for a holistic approach to integrating polio surveillance in existing surveillance workstreams.
• Conduct rapid assessment of polio surveillance sensitivity and develop improvement plans to address challenges.
	• Advocate for holistic polio surveillance integration at the country level.
	• Collect lessons learned from countries that have undergone polio surveillance integration.
	• Support countries to conduct rapid assessment of polio surveillance sensitivity.
	  ○ *Support for rapid assessments will be provided to countries (n) in AFRO (2) and WPRO (6)*
	• Additional region-specific activities:
	  ○ *SEARO to monitor implementation of regional guidelines on integrated VPD surveillance.*
		• Support countries and regions for the holistic integration of polio surveillance.
		• In coordination with regions and GPEI partners, collect lessons learned from countries and regions that have integrated polio surveillance.
		• Develop and disseminate a polio surveillance integration tool and checklist.
		• Support countries and regions to conduct rapid assessment of polio surveillance sensitivity.
		• Develop and disseminate white papers on alternative surveillance systems for poliovirus detection.

Major Activity 5: Monitor and advocate for sustainable transition in countries that receive GPEI funding for surveillance		
• With support from WHO transition teams, develop transition plans that sustain technical and financial support for surveillance beyond GPEI funding.	• In coordination with the WHO transition teams, provide support to countries to develop transition plans that sustain technical and financial support for surveillance. ○ *AFRO to support for transition plan development in 10 countries.* • Participate in global and regional forums to support transition plans for surveillance.	• In coordination with the WHO transition teams, provide support to regions and countries to develop transition plans that sustain technical and financial support for surveillance. • Participate in global and regional forums to support transition plans for surveillance.

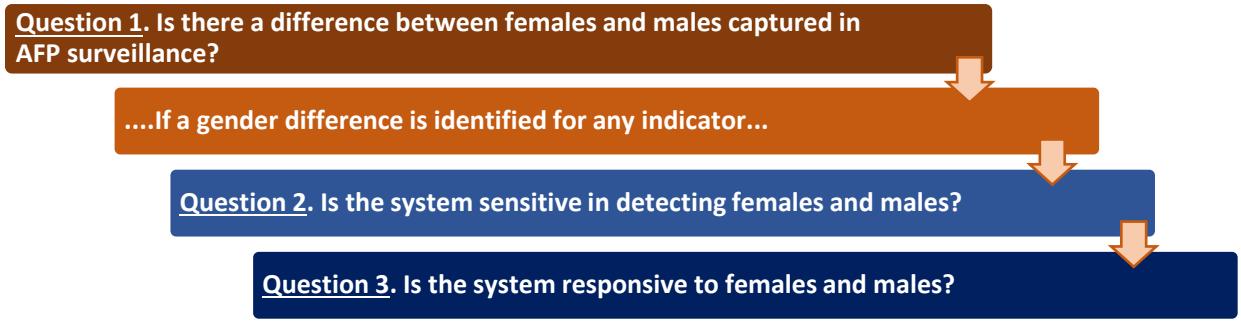
AFRO = Regional Office for Africa; GPEI = Global Polio Eradication Initiative; GPLN = Global Polio Laboratory Network; HR = human resources; KPI = key performance indicator; KPPI = key performance and process indicator; SEARO = Regional Office of South-East Asia; SG = Surveillance Group; VPD = vaccine-preventable disease; WebIFA = web-based information for action (system); WHO = World Health Organization; WPRO = Regional Office for the Western Pacific.

Annex F. Safeguarding gender to detect and investigate AFP in children

Mainstreaming gender in polio surveillance activities and interventions is essential to ensure every child with acute flaccid paralysis (AFP) is detected and investigated. While guidance has been addressed in the Global Polio Surveillance Action Plan (GPSAP) 2022–2024 (Annex I) and the *Global AFP Surveillance Guidelines* (Annex 18), [41] this annex revisits how to analyse surveillance data from a gender lens and how to use findings to inform corrective measures.

Three questions help identify gender-related barriers to ensuring all children with AFP, regardless of gender, are rapidly detected and investigated (see **Fig. F1**). The first question is a broad, overarching question to assess if there is an issue with gender disparity in AFP surveillance while the other two questions help to guide further analytical investigation into potential underlying causes.

Fig. F1. Process to support the identification of gender-related barriers in AFP surveillance



Source: WHO.

Question 1. Is there a difference between females and males captured in AFP surveillance?

This high-level question will help quickly identify if any differences exist, though it will not pinpoint the underlying cause for observed gender disparities. Three indicators can help to inform the answer to this question (see **Table F1**, next page). All three indicators should be regularly monitored, including sex-disaggregated analyses.

Small numbers

The expected number of reported AFP cases may be few in small population areas, making it challenging to compare percentages. Exercise judgement when analysing small numbers.

[41] Global Polio Eradication Initiative (GPEI). Global Polio Surveillance Action Plan 2022–2024. Geneva: World Health Organization; 2022 (https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf, accessed 22 December 2024). Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication. Geneva: World Health Organization; 2024 (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024).

Table F1. High-level indicators for identifying gender differences in AFP surveillance activities

Indicators	Purpose	Calculation (expressed as a percentage)
Non-polio AFP rate ***OR*** **AFP cases reported**	Assess any sex-based differences in detecting and reporting of AFP cases.	*Stratify by sex:* # Cases discarded as NPAFP in children aged <15 years divided by # population aged <15 years.[42] # AFP cases by sex divided by # AFP cases.
Stool adequacy	Assess any sex-based differences in the ability to detect poliovirus among AFP cases.	*Stratify by sex*: # AFP cases that met all of the following conditions (2 stool specimens collected ≥24 hours apart, within ≤14 days of paralysis onset, AND both specimens received in good condition at a WHO-accredited laboratory), divided by # AFP cases.
Timeliness of field activities	Assess if there are any sex-based differences to delays in completing field activities (notification, investigation, stool collections).	*Stratify by sex:* # AFP cases with two stool specimens collected ≥24 hours apart and ≤11 days of paralysis onset divided by # AFP cases.

AFP = acute flaccid paralysis; NPAFP = non-polio acute flaccid paralysis; WHO = World Health Organization.

Despite biological and societal differences in the development of paralytic polio among females and males, the risk for developing AFP is assumed to be similar—and thus the distribution of AFP in females and males is expected to be approximately even, or 50%–50%, with small variations in the percent difference. Continuous, sizable differences (i.e. >10% over a six-month period) warrant further analyses to identify the underlying cause so that effective corrective measures may be taken, if necessary.

Special populations

When analysing population data (e.g. socio-economics and demographics), be sure to disaggregate by sex to identify any underlying sex-based differences. Be careful when analysing data by multiple factors at once as this may lead to small numbers.

If any of the three indicators (**Table F1**) suggest a gender difference, there are two additional questions in the analytical investigation process to identify gender-related barriers that will facilitate understanding disparities in AFP surveillance performance (see **Fig F1**, previous page).

Question 2. Is the system sensitive in detecting females and males?

This question aims to identify any gender-related disparities in the notification of AFP cases to public health authorities. Two indicators provide insight into the answer (see **Table F2**).

Table F2. Indicators for AFP surveillance sensitivity to detect all AFP cases, females and males

Indicators	Purpose	Calculation (expressed as a percentage)
Timeliness of notification	Identify any sex-based delays in the notification/reporting of AFP cases to public health.	*Stratify by sex:* # AFP cases with ≤7 days between onset and notification divided by # AFP cases.
AFP case encounters (also called health contact)	Evaluate if one sex has more visits with health entities (e.g. providers, facilities, healers) before public health is notified compared with the other sex.	*Stratify by sex:* # AFP cases by sex with ≤2 health encounters between onset and notification divided by # AFP cases.

AFP = acute flaccid paralysis.

[42] If gender-specific denominators are available, the preference is to calculate the NPAFP rate. However, a simple examination of the AFP cases reported by sex is also informative if gender-specific denominators are unavailable.

If differences are identified for either indicator, refer to **Table F3** for possible issues and corrective actions. Surveillance officers and programme managers should consider working with gender specialists. Collaborating with women's groups, women's health committees, grassroots networks and other organizations will help in understanding gender-related barriers and identifying locally acceptable corrective actions.

Table F3. Examples of gender-related barriers to AFP notification and possible corrective actions

Stages	Possible issues and their causes	Possible corrective actions
Onset of paralysis to care-seeking	• Discriminatory attitude in health-seeking behaviour for female patients (e.g. males' access to health care prioritized, delays in seeking care for females, poor quality of services of health workers towards females).	• Carry out health-seeking behaviour assessment to identify and address gender-biased behaviour.[43]
Notification	• Discriminatory attitude towards reporting female AFP patients.	• Review active surveillance visit data to identify if there has been a disproportionate number of missed AFP cases that are females (previous 6 months) and sensitize sites on reporting practices. • Advocate with hospital leaders on the need to report all AFP cases notified by hospital staff. • Investigate health contacts that did not report AFP cases to understand why they were not reported and sensitize on reporting practices.

AFP = acute flaccid paralysis; CBS = community-based surveillance.

Question 3. Is the system responsive to females and males?

This question examines if females and males are treated without bias once they have been reported to public health authorities and within the AFP surveillance system. Three indicators provide insight into the final question (**Table F4**).

Table F4. Indicators for AFP surveillance system responsiveness to all AFP cases, females and males

Indicators	Purpose	Calculation (expressed as a percentage)
Timeliness of investigation	Identify if there are any sex-based delays in conducting AFP case investigations.	*Stratify by sex:* # AFP cases with ≤48 hours between notification and investigation divided by # AFP cases.
Additional analysis: Proportion of AFP cases with two stools collected	Identify if there are any sex-based differences in the number of stool specimens collected.	*Stratify by sex:* # AFP cases with two stool specimens collected divided by # AFP cases.
Additional analysis: Proportion of AFP cases with two specimens collected within 2 days of case investigation and ≥24 hours apart	Identify if there are any sex-based differences in prioritizing stool specimen collection.	*Stratify by sex:* # AFP cases with two stool specimens collected within 2 days of AFP case investigation divided by # AFP cases.

AFP = acute flaccid paralysis.

[43] Refer to **Annex 9** in the Global AFP Guidelines (https://iris.who.int/bitstream/handle/10665/376603/9789240089662-eng.pdf, accessed 22 December 2024) and **Annex C** in 2022–2024 GPSAP (https://polioeradication.org/wp-content/uploads/2022/05/GPSAP-2022-2024-EN.pdf, accessed 22 December 2024).

If gender differences are observed in the timeliness of investigating AFP cases, refer to **Table F5** for possible causes and corrective measures. If no gender differences are detected in the timeliness of investigating AFP cases, then there are likely to be issues with stool specimen collection that warrants further analyses. For example, do females AFP cases rarely have two specimens collected? Or if collected, are both specimens not collected within two days of case investigation?

Why are transport and testing not potential gender issues?

Transport companies are blinded to the gender of the AFP case. Laboratorians focus on processing samples and are generally unaware of the gender of the AFP case due to the use of lab identification numbers to test samples.

When gender-related barriers to responsiveness are identified, it is important for the programme to conduct a transparent examination of its policies and procedures to understand how discriminatory practices have impaired the surveillance system's ability to detect polio. Inclusion of management and gender specialists in the evaluation process will help to identify appropriate corrective action.

Table F5. Examples of gender-related barriers to responsiveness and possible corrective actions

Stages	Possible issues and their causes	Possible corrective actions
Case investigation and stool collection	• Gender discriminatory practices in conducting or prioritizing AFP cases for investigation or specimen collection.	• Train surveillance officers to address personal biases/discriminatory practices. • Monitor surveillance officers for improvement and consider supportive supervision visits.

AFP = acute flaccid paralysis.

Annex G. Budget

As part of eradication efforts, the Global Polio Eradication Initiative (GPEI) provides direct funding support for surveillance to countries, usually via the World Health Organization (WHO) but also as direct support by specific GPEI partners to countries, regions or other stakeholders. GPEI funds that are included in the approved budget are referred to as the programme's financial resource requirements (FRR). Other support provided directly by partners and donors are considered non-FRR support.

To ensure the programme delivers on the surveillance-related objectives of the GPEI Strategy, particularly as it relates to the timeliness of detection, the GPEI Surveillance Group (SG) worked with WHO regional offices to develop surveillance plans and budgets for all countries. The SG submitted a budget proposal to the GPEI Strategy Committee, and a final surveillance budget of US$ 151 million was approved by the Polio Oversight Board (POB) as part of GPEI FRR for 2025 (**Table G1**). This surveillance budget will broadly be kept flat (i.e. at the same figure) until 2029, as part of the extension to the eradication strategy timeline and multi-year budget that were endorsed by the POB.

Table G1. GPEI surveillance budget, financial resource requirements, 2025

Region	Cost centre	Technical assistance	Surveillance running costs	Laboratory	Total
AFR	AFRO	1 825 000	4 827 000	7 455 000	14 107 000
	Angola	1 474 000	1 101 000		2 575 000
	Burkina Faso		440 000		440 000
	Cameroon	180 000	1 096 000		1 276 000
	Central African Republic		1 468 000		1 468 000
	Chad	949 000	1 285 000		2 234 000
	Democratic Republic of the Congo	2 208 000	2 826 000		5 034 000
	Ethiopia	989 000	1 904 000		2 893 000
	Guinea	168 000	362 000		530 000
	Kenya	580 000	759 000		1 339 000
	Madagascar		1 174 000		1 174 000
	Mali		808 000		808 000
	Mozambique		881 000		881 000
	Niger	600 000	1 056 000		1 656 000
	Nigeria	12 528 000	8 263 000		20 791 000
	South Sudan	507 000	2 960 000		3 467 000
AMR	PAHO		311 000	110 000	421 000
EMR	EMRO	2 435 000	1 002 000	1 566 000	5 003 000
	Afghanistan	6 175 000	20 500 000	200 000	26 875 000
	Pakistan	17 116 000	7 690 000	2 231 000	27 037 000
	Somalia	1 112 000	3 156 000		4 268 000
	Syrian Arab Republic			23 000	23 000
	Yemen			48 000	48 000
EUR	EURO	246 000	374 000	252 000	872 000
HQ	HQ	2 760 000	18 454 000	2 848 000	24 062 000
SEAR	SEARO		661 000	740 000	1 401 000
	Myanmar			16 000	16 000
	Bangladesh			54 000	54 000
	Indonesia			67 000	67 000
	Nepal			5 000	5 000
WPR	WPRO	92 000	143 000	321 000	556 000

AFR = African Region; AFRO = Regional Office for Africa; AMR = Region of the Americas; EMR = Eastern Mediterranean Region; EMRO = Regional Office for the Eastern Mediterranean; EUR = European Region; EURO = Regional Office for Europe; HQ = headquarters; PAHO = Pan American Health Organization; SEAR = South-East Asia Region; SEARO = Regional Office for South-East Asia; WPR = Western Pacific Region; WPRO = Regional Office for the Western Pacific.

The approved budget includes support for technical assistance, surveillance running costs and laboratory costs in the two WPV1-endemic countries (Afghanistan and Pakistan) and three priority countries in the WHO Eastern Mediterranean Region (Somalia, Yemen and the Syrian Arab Republic), and 10 priority countries (Angola, Cameroon, Chad, the Democratic Republic of the Congo, Ethiopia, Guinea, Kenya, Niger, Nigeria and South Sudan) and five additional high-risk countries in the WHO African Region (Burkina Faso, Central African Republic, Madagascar, Mali and Mozambique). Four countries in the South-East Asia Region will receive support for laboratories. Support for Afghanistan, Pakistan and Nigeria constitute 49% of the overall budget. The overall approved budget also includes allocations for capacity-building, environmental surveillance (ES) expansion, and investment in the data and information management infrastructure.

Additional needs

Considering the ongoing need to enhance surveillance quality across priority countries and territories, as well as countries territories newly affected by polio outbreaks and countries and territories with heightened risk of poliovirus importation, targeted surveillance enhancement measures may be required.

When such needs arise, the SG will review proposed plans, including any additional resource requirements. The SG will continue to liaise with the Outbreak Response and Preparedness Group (ORPG) to optimally utilize outbreak response funds to strengthen surveillance in outbreak-affected countries, with the endorsement of the GPEI Strategy Committee. Such an arrangement worked well in 2024, when a total of US$ 8 million from the outbreak response funds were allocated for use as surveillance contingency funding to strengthen surveillance in the polio outbreak-affected countries.

In accordance with established procedures, if additional resource requirements cannot be met within the approved budget, the SG will submit a proposal for consideration to the GPEI Strategy Committee.

Next steps

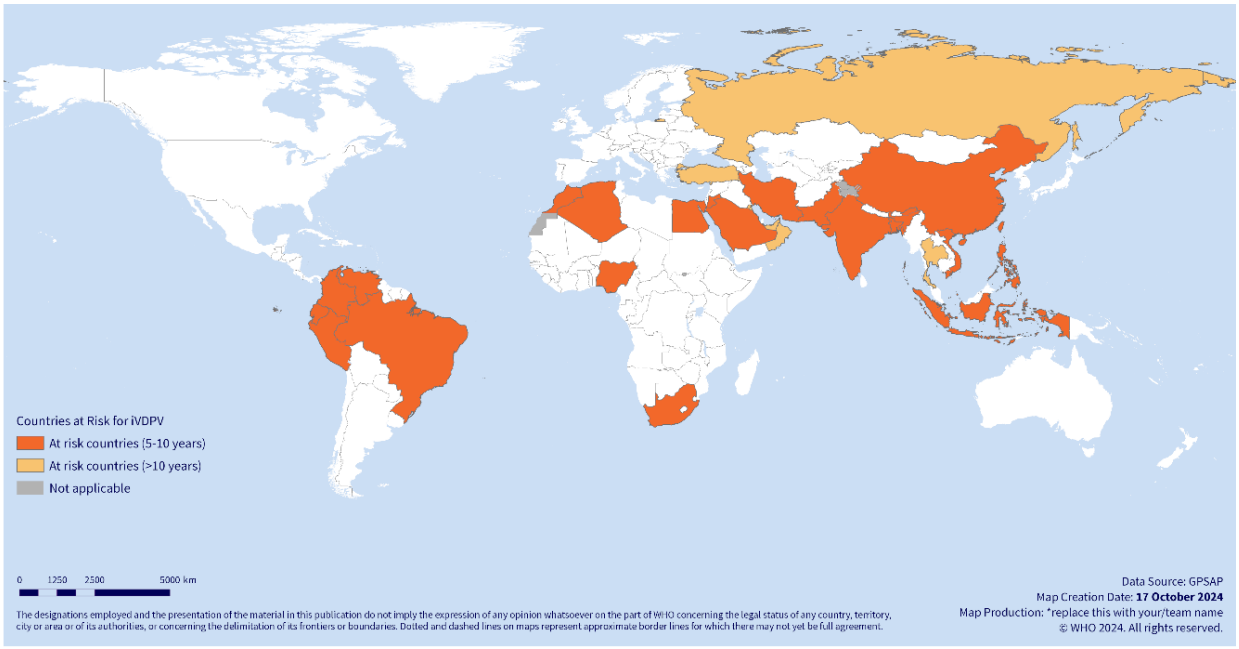
The SG will carry out the following monitoring and evaluation (M&E) activities:

- ✓ on a monthly basis, produce FRR utilization summaries by cost centre, to be shared with all relevant offices;
- ✓ on a quarterly basis, conduct a joint review of programme implementation, including utilization of FRR allocations;
- ✓ on a semi-annual basis, include a narrative on FRR utilization in the SG’s report to the Strategy Committee; and
- ✓ on an annual basis, assess overall surveillance funding outlook, including non-FRR and include in annual feedback to the Strategy Committee.

Annex H. Global risk assessment for iVDPV surveillance

An early model of the risk of immunodeficiency-associated vaccine-derived poliovirus (iVDPV) has been produced as a guiding tool for countries and regional offices of the World Health Organization (WHO) to plan for iVDPV surveillance (**Fig. H1**). This model is based on limited data and is in no way prescriptive.

Fig. H1. Countries potentially at risk of iVDPV



Source: WHO.

Countries at risk of iVDPV (5-10 years)	Countries at risk of iVDPV (>10 years)
Algeria, Bangladesh, Brazil, China, Colombia, Ecuador, Egypt, India, Indonesia, the Islamic Republic of Iran, Jordan, Morocco, Nigeria, Pakistan, Peru, Philippines, Saudi Arabia, South Africa, Venezuela, Viet Nam	Kuwait, Oman, Russian Federation, Thailand, Turkey, United Arab Emirates

The model draws on countries that have capacity to provide care to patients with primary immunodeficiency disorders (PIDs) who may excrete virus after exposure to the oral polio vaccine (OPV) viruses. Within this set of countries, the model isolates several key factors that elevate a country's risk of iVDPV, including:

- a history of oral polio vaccine (OPV) use prior to its cessation;
- a prevalence of consanguinity that elevates the incidence of primary immunodeficiency disorders (PIDs) known to contribute to iVDPVs;
- a low under-five child mortality rate as this prolongs the period of possible excretion; and
- low coverage of a first dose of the inactivated polio vaccine (IPV) in essential immunization as this raises risks related to community transmission.

The model projects iVDPV risk across time (i.e. 5-10 years vs >10 years) to support WHO regional offices in identifying possible countries for establishing and implementing iVDPV surveillance. The model will continue to be updated as more data becomes available.

Annex I. Resources

Global polio surveillance materials

Field guidance

❖ ***Global guidance for conducting acute flaccid paralysis (AFP) surveillance in the context of poliovirus eradication*** Global guidance outlines well-established strategies and activities for AFP surveillance. The 2023 update includes field guides, job aids and new tools to enhance sensitivity.	Global AFP Guidelines online
❖ ***Field guidance for the implementation of environmental surveillance for poliovirus*** Global guidance for initiating and implementing high-quality and highly sensitive environmental surveillance (ES) for detecting all poliovirus types.	Global ES Guidance online
❖ ***Guidelines for Implementing Poliovirus Surveillance among Patients with Primary Immunodeficiency Disorders (PIDs)*** Global guidelines for establishing supplemental surveillance to detect immunodeficiency-associated vaccine-derived poliovirus (iVDPV) shed among non-paralytic patients with PIDs.	Global iVDPV Surveillance Guidelines
❖ ***Global Polio Laboratory Network (GPLN)*** Laboratory-related documents published by the GPLN, including the World Health Organization (WHO) Polio Laboratory Manual and supplements, guidance papers and reports from informal consultations.	GPLN Resource Hub

Topic-specific guidance

❖ ***Outputs from polio surveillance subject matter expert (SME) work groups – risks and risk mitigation strategies*** A companion file to the Global Polio Surveillance Action Plan (GPSAP) 2025–2026 that summarizes the risks and risk mitigation strategies for each of the three surveillance sensitivity levels that were identified by polio surveillance SMEs of the Global Polio Eradication Initiative (GPEI).	Output from polio surveillance SME work groups on risks & risk mitigation strategies
❖ ***Guidelines for Implementing Polio Surveillance in Hard-to-Reach Areas & Populations*** Guidelines documented from a consultation on specialized techniques and protocols to detect poliovirus in the hardest-to-reach areas and populations. It provides details to supplement AFP surveillance strategies and tools to manage a sensitive surveillance system in hard-to-reach places.	Hard-to-Reach Areas & Populations Guidelines
❖ ***Best Practices in Active Surveillance for Polio Eradication*** Document that describes best practices in active AFP surveillance for polio eradication, even in areas with very little health infrastructure in place. It encompasses all steps to set up, manage, troubleshoot and monitor active surveillance.	Best Practices in Active Surveillance

Trainings

❖ ***GPEI AFP Surveillance Training Package*** Training package consists of 12 adaptable Microsoft® PowerPoint-based modules, designed for use at in-person training sessions. Modules include interactive exercises and job aids. A facilitator guide is available for preparation. Available in English and French. Look for "Surveillance Training Package 2024" at the link.	AFP Surveillance Training Package or send an email polio_info@who.int
❖ ***GPEI self-paced AFP surveillance online courses*** Four self-paced AFP surveillance online courses are offered through WHO iLearn. These modules feature periodic knowledge checks to reinforce key concepts, followed by a final quiz. The online courses are currently available in English.	Self-paced AFP surveillance course
❖ ***iVDPV Surveillance training*** Training consists of nine adaptable Microsoft® PowerPoint-based modules, designed for use at in-person training sessions.	iVDPV Surveillance Training or send an email polio_info@who.int
❖ ***Community-based surveillance toolkit*** Platform for surveillance professionals who are interested in implementing or strengthening community-based surveillance (CBS) in their countries. The toolkit is organized chronologically by the steps of planning for, implementing and monitoring CBS.	CBS toolkit

Polio surveillance and outbreak response (OB) resources

❖ ***Interim Quick Reference on Strengthening Polio Surveillance during a Poliovirus Outbreak*** This quick reference guide summarizes current globally recommended polio surveillance activities to enhance sensitivity during polio outbreaks.	Polio surveillance strengthening during polio outbreaks
❖ ***E-learning course: GPEI Outbreak Response Training – 2020*** This E-learning course is designed to help learners develop a knowledge of polio outbreak response standard operating procedures (SOPs).	Polio outbreak response training 2020
❖ ***Standard operating procedures: responding to a poliovirus event or outbreak, version 4*** SOPs for responding to poliovirus events or outbreaks.	Updated Polio OB response SOPs v4
❖ ***Webinar: Updated and revised polio outbreak response SOPs – 2022*** This webinar with global, regional and country experts presents key updates and revisions to the polio OB response SOPs. The SOPs focus on more rapid, larger and higher-quality responses.	Updated Polio OB response SOPs v4 webinar

WHO regional polio surveillance documents

African Region

- ***GPEI Resource Hub – Guidelines and Plans***
  Surveillance-related documents published by the WHO Regional Office for Africa to guide national programmes. Includes *Guidelines for poliovirus surveillance in the WHO African Region, Africa Regional Polio Eradication Action Plan 2024/2025* and *Polio eradication cross-border coordination plan 2024–2025: Lake Chad Basin and Sahel countries.*

Resource Hub – GPEI (polioeradication.org)

European Region

- ***Guidelines for enterovirus surveillance in support of the Global Polio Eradication Initiative***
  Guidelines on the principles and practices of adopting enterovirus surveillance (EVS) in support of polio eradication.

Guidance on EVS

Region of the Americas

- ***Poliomyelitis Eradication Field Guide, Third Edition***
  Field Guide by the Pan-American Health Organization (PAHO) on strategies to keep the region polio-free, including AFP surveillance.

Polio Eradication Field Guide

- ***Guidelines for active case finding of AFP, measles and rubella***
  New guidelines for active case finding for acute flaccid paralysis cases.

Guidelines for Active Case Finding

South-East Asia Region

- ***Surveillance Guide for Vaccine-Preventable Diseases in the WHO South-East Asia Region – Module 3 Poliomyelitis***
  One of 11 vaccine-preventable disease (VPD) modules on conducting surveillance.

Surveillance Guide for Poliomyelitis