The road to zero polio in Africa

Polio eradication action plan for the WHO African Region, 2024-2025

World Health Organization
African Region

polio global eradication initiative

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Reference number: WHO:AFRO/ORD:2024-16

Suggested citation. Road to zero polio in Africa: Polio eradication action plan for the WHO African Region, 2024-2025. Brazzaville: WHO African Region, 2024. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

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Designed in Brazzaville, Republic of Congo

Contents

Abbreviations

AFP	acute flaccid paralysis
bOPV	bivalent oral polio vaccine
CAR	Central African Republic
CBS	community-based surveillance
DD-ITD	direct detection intratypic differentiation
DDNS	direct detection nanopore sequencing
DRC	Democratic Republic of the Congo
eData	electronic data
EOC	Emergency Operations Centre
EPI	Expanded Programme on Immunization
ERC	Expert Review Committee
ES	environmental surveillance
ESARO	East and Southern Africa Regional Office
eSURV	electronic Surveillance
EV	enterovirus
GIS	geographic information system
GMG	Gender Mainstreaming Group
GPEI	Global Polio Eradication Initiative
GPLN	Global Polio Laboratory NetworkGlobal
GSL	Sequencing Laboratory
IM	independent monitoring
IMB	Independent Monitoring Board (GPEI)
IPV	inactivated polio vaccine
IPV2	inactivated polio vaccine (second dose)
ITD	intratypic differentiation
KPI	key performance indicator
KPPI	key process and performance indicator
LCB	Lake Chad Basin
LQAS	Lot Quality Assurance Sampling
MR	measles-rubella
NEOC	National Emergency Operations Centre
NID	National Immunization Day
nOPV2	novel oral polio vaccine type 2
NP AFP	non-polio acute flaccid paralysis
OBR	outbreak response
OBRA	outbreak response assessment
ODK	Open Data Kit
OPV	oral polio vaccine
ORPG	Outbreak Response & Preparedness Group
PCR	polymerase chain reaction
PEP	Polio Eradication Programme (WHO)
POB	Polio Oversight Board (GPEI)
POSE	Polio Outbreak Simulation Exercise
PT	pilot testing
RD	Regional Director
RITAG	Regional Immunization Technical Advisory Group
ROC	Regional Polio Immunizations Operations Centre
RORG	Regional Outbreak Response Group (GPEI)
RRL	Regional Reference Laboratory
RRT	Rapid Response Team (GPEI)
SBC	social and behavioural change
SC	Strategy Committee (GPEI)
SIA	supplementary immunization activity
SNID	Subnational Immunization Day
SOP	standard operating procedure
tOPV	trivalent oral polio vaccine
UNICEF	United Nations Children's Fund
VDPV	variant poliovirus
VI	viral isolation
VPD	vaccine-preventable disease
WebIFA	web-based information for action
WHO	World Health Organization
WPV	wild poliovirus
WPV1	wild poliovirus type 1
WR	WHO Representative
YF	yellow fever

Executive summary

This **Africa Regional Polio Eradication Action Plan 2024-2025** charts a new course for outbreak response in the African Region of the World Health Organization. It represents a shift in approach by tackling all poliomyelitis (polio) transmission, including circulating variant poliovirus outbreaks, as if the reported cases or isolates were wild poliovirus (WPV). Rather than adhering to the previously prescribed response of two campaign rounds, this action plan details a more aggressive approach, whereby polio-affected countries determine campaigns of between three and five rounds based on their risk and population immunity.

This plan mirrors the eradication goals of the Global Polio Eradication Initiative (GPEI) and outlines strategic objectives and key actions that the WHO African Region will take to stop transmission and achieve an Africa that is free of all forms of polio.

The action plan defines the road to **zero polio in Africa** with the following goals and milestones:

- closing wild poliovirus type 1 (WPV1) outbreaks by December 2024 and ending ongoing poliovirus type 1 outbreaks by December 2024;
- ending all ongoing poliovirus type 2 transmission by December 2025; and
- preventing any further spread of ongoing outbreaks to new countries by December 2026

Priorities for 2024-2025

To achieve these goals and milestones, the action plan has identified 10 priorities that will clear a path for regional coordination across the continent. These priorities reflect the determination of managers of the programme to increase its capacity and leverage its strengths to fulfil its mission.

By pursuing a new course of action defined by these priorities, the WHO African Region will end outbreaks and build the resilience required to achieve and maintain a polio-free Africa.

The priorities are:

1. Aim resources at the sequential elimination of polio from epidemiological zones.
2. Prioritize response to type 1 and type 3 polioviruses over type 2 in the event of importation or new emergence in a new geography. Given rapidly declining immunity to types 1 and 3, any new importation or emergence could lead to large-scale outbreak if not immediately addressed.
3. Determine target age-group for campaigns based on the epidemiology and risk assessments. Response to type 2 outbreaks in new geographies will continue to target cohorts born after the 2016 switch from trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV).
4. Tighten programme operations in areas with persistent transmission, particularly the capacity to reach populations that have so far remained unreached, whether owing to insecurity, inaccessibility, vaccine hesitancy or operational inefficiencies.
5. Prioritize investment in high-quality microplanning, particularly in the consequential geographies, to interrupt transmission and sustain gains achieved through outbreak response.
6. Drive the prioritization of vaccine allocations through epidemiological assessments and implementation capacity to mitigate any possible risks associated with a disruption in vaccine supply.
7. Devise new communication strategies to overcome vaccine hesitancy in high-risk populations.
8. Address surveillance gaps in “silent areas” where undetected transmission might occur.
9. Integrate programme delivery whenever and wherever it does not compromise speed and quality of response and foster integration with other antigens and other health interventions.
10. Intensify advocacy efforts to engage leaders and donors to renew their commitments to eradicating polio in all its forms.

Introduction

Context

The GPEI launched its *Polio Eradication Strategy 2022–2026* to meet the final challenges on the path to the permanent interruption of all forms of polio, *(1).* The strategy coordinates the efforts of the GPEI partnership towards two primary goals:

- **Goal One,** to permanently interrupt WPV1 transmission in endemic countries; and
- **Goal Two,** to stop the transmission of circulating variant poliovirus and prevent outbreaks in non-endemic countries.

The GPEI strategy called for a rigorous review in 2023, which was entrusted to its Independent Monitoring Board (IMB). Regarding Goal Two, the IMB noted that an important milestone – reporting the last isolate of circulating variant poliovirus type 2 by the end of 2023 – would not be met by the target date set forth in the strategy. Considering this missed milestone, the GPEI Polio Oversight Board (POB) committed to intensifying the programme's response to circulating variant poliovirus outbreaks with the aim of achieving circulating variant poliovirus type 2 interruption by the end of 2025, *(2).*

Between 2021 and 2023, circulating variant poliovirus outbreaks occurred in five of the six WHO regions. The African Region faces a uniquely challenging environment. (**See Annex A: Current epidemiological context**.) The Region has demonstrated its capability to respond effectively to WPV1 importation; after eight cases were detected in Southern Africa, the evaluation of the programme concluded that there was no evidence of ongoing transmission by August 2022. However, steep challenges have contributed to the near continent-wide spread of circulating variant poliovirus outbreaks.

These include:

- low essential immunization coverage rates that increase the risk of circulating variant poliovirus outbreaks;
- widening immunity gaps in relation to different poliovirus serotypes that increase the risk of outbreaks and cross-border spread;
- recent disruptions in the supply of the novel oral polio vaccine type 2 (nOPV2);
- funding limitations that require difficult prioritization by the programme; and
- operational inefficiencies that have contributed to delays in detection and suboptimal response.

The Region also faces ongoing external challenges, such as community mistrust, insecurity and conflict, political instability and humanitarian crises. These challenges contribute to a destabilizing environment. (**Annex B** provides a summary of risks and challenges.)

Stopping all circulating variant poliovirus transmission and preventing the emergence of new poliovirus outbreaks requires a redefined plan that will deliver on Goal Two of the GPEI strategy for the African Region.

Purpose

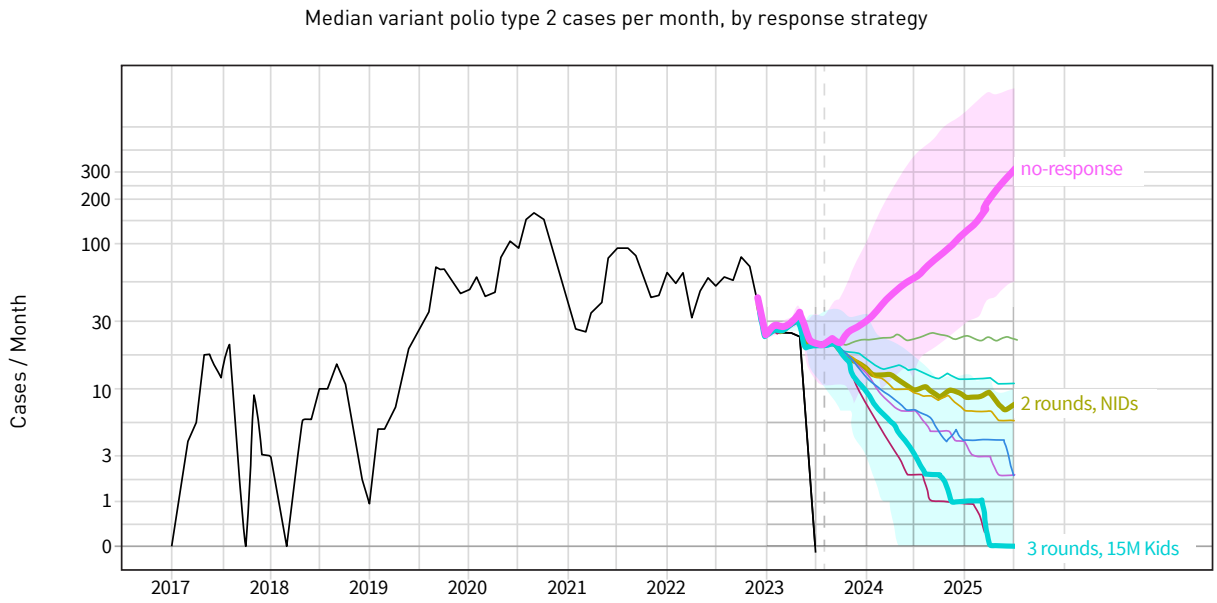
This **African Regional Polio Eradication Action Plan** outlines an aggressive outbreak response plan to end active outbreaks in Africa by 31 December 2025.

The purpose of the plan is to provide a new approach that tackles all polio transmission in the Region as if the reported cases or isolates were wild poliovirus (WPV).

This approach requires a shift in mindset. Until recently, outbreak response efforts were guided by a belief that circulating variant poliovirus outbreaks were easier to stop than WPV outbreaks. This assumption led to the current GPEI standard operating procedures (SOPs) that prescribe two limited scope rounds of supplementary immunization activities (SIAs) to interrupt transmission across an outbreak zone, *(3).*

However, the current SOPs are insufficient for the African Region and require adaptation to deliver on Goal Two of the GPEI strategy. This proposition has not only been raised by the IMB in its review of the GPEI strategy; it is also evidenced by the epidemiology. Moreover, risk modelling supports the view that large responses beyond country borders are critical to the elimination of circulating variant polioviruses (**Fig. 1**).

Fig. 1. Modelling of simulated spread of cases based on stimulated outbreak response strategy



NID = national immunization day.

Source: Gates Foundation, 2023.

This *African Regional Polio Eradication Action Plan* charts a new course of action by outlining the goals, objectives and core principles required to stop all poliovirus transmission in Africa.

Goals

The two goals of this action plan mirror the goals of the GPEI programme:

- **close WPV1 transmission in 2024; and**
- **stop all other ongoing poliovirus transmission within the Region by December 2025.**

Objectives

The goals of this Action Plan are pursued through four main objectives:

- **intensify outbreak response;**
- **improve timeliness of detection;**
- **expedite progress through integration; and**
- **create urgency through advocacy.**

Core principles

The WHO Regional Office for Africa has adopted core principles as a framework to guide its efforts in achieving zero polio.

The **nine core principles** are as follows:

1. Ensure a realistic response plan by anticipating real-world challenges, such as delays or inaccessibility. There is no room for wishful thinking.
2. Proactively adjust response plans by conducting regular regional and/or subregional risk assessments. Outbreak zones should include relevant geographies beyond national boundaries.
3. Minimize scoping errors (according to geography and/or age groups) by using all available data.
4. Focus on immunity gaps when planning a response of between two and five rounds, depending on transmission scale, ongoing risk and prior population immunity. For new outbreaks and in geographies of very high programmatic risk, a minimum of three rounds and maximum of five rounds will be planned.
5. Implement special interventions – including fractional doses of inactivated polio vaccine (fIPV), in-between rounds activities, essential immunization interventions, extended transit vaccinations and health camps – in high-risk areas that are hard to reach and that host displaced populations or nomadic communities.
6. To overcome vaccine hesitancy, continuously review and innovate new approaches to community engagement and social mobilization.
7. Use field-level outbreak response assessments (OBRAs), led by competent leadership, to periodically assess progress and propose additional actions.
8. Integrate programme delivery whenever and wherever it does not compromise the speed or quality of response, and foster integration with other antigens and other health interventions.
9. Maintain response posture at least until six months have passed since the last detection.

These principles are unlikely to be fully implemented at once across the Region, given the resource constraints of the programme. When considered in relation to anticipated milestones for epidemiological zones, the principles lend focus to stop transmission in phases across the region.

Epidemiological zones

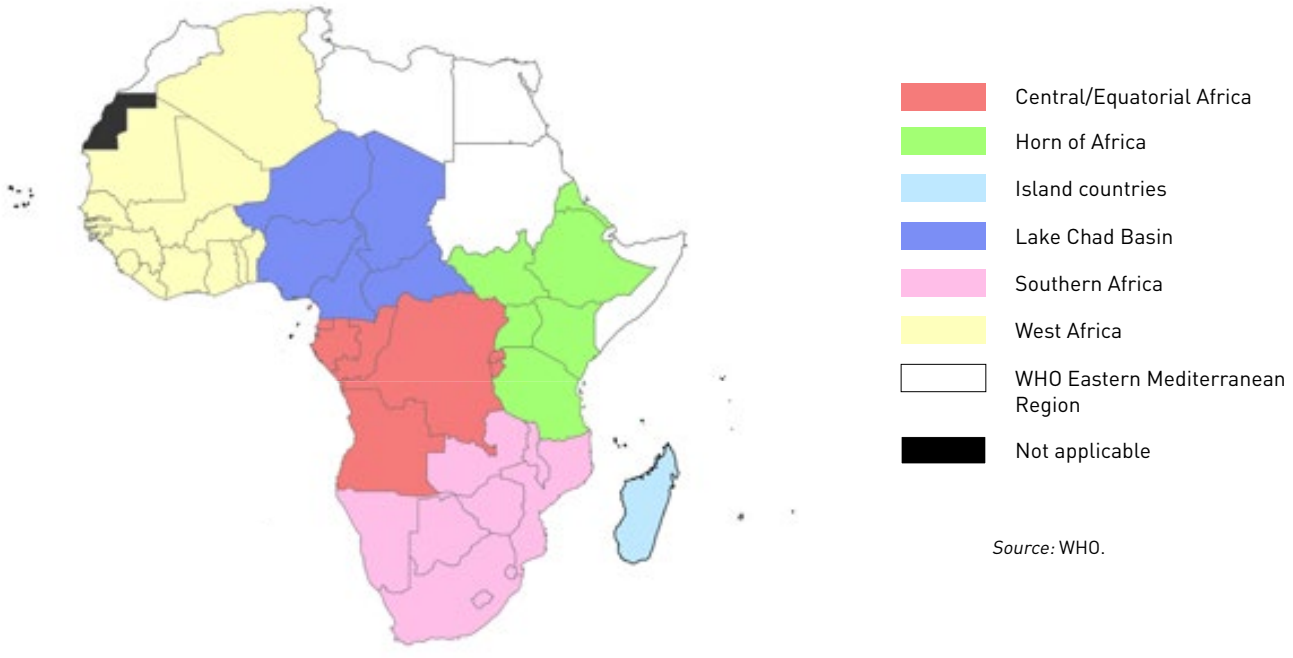
The programme has defined six zones based on similar epidemiological characteristics and risks. While outbreaks may spread across more than one epidemiological zone, these zones have been defined to better facilitate coordination and support to meet country needs.

The six epidemiological zones detailed in **Table 1** are also depicted in **Fig. 2. Annex C,** which provides an in-depth discussion of the zones, including action plans.

Table 1. Epidemiological zones of the WHO African Region, 2024-2025

Zone	Countries
Lake Chad Basin	Cameroon, Central African Republic, Chad, Niger, Nigeria
West Africa	Algeria, Benin, Burkina Faso, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Senegal, Sierra Leone, Togo
Central Equatorial Africa	Angola, Burundi, the Republic of Congo, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda
Horn of Africa	Ethiopia, Eritrea, Kenya, South Sudan, Uganda, United Republic of Tanzania
Southern Africa	Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe
Madagascar and other islands countries	Cabo Verde, Comoros, Madagascar, Mauritius, Sao Tome and Principe, Seychelles

Fig. 2. The six epidemiological zones of the WHO African Region, 2024-2025



Source: WHO.

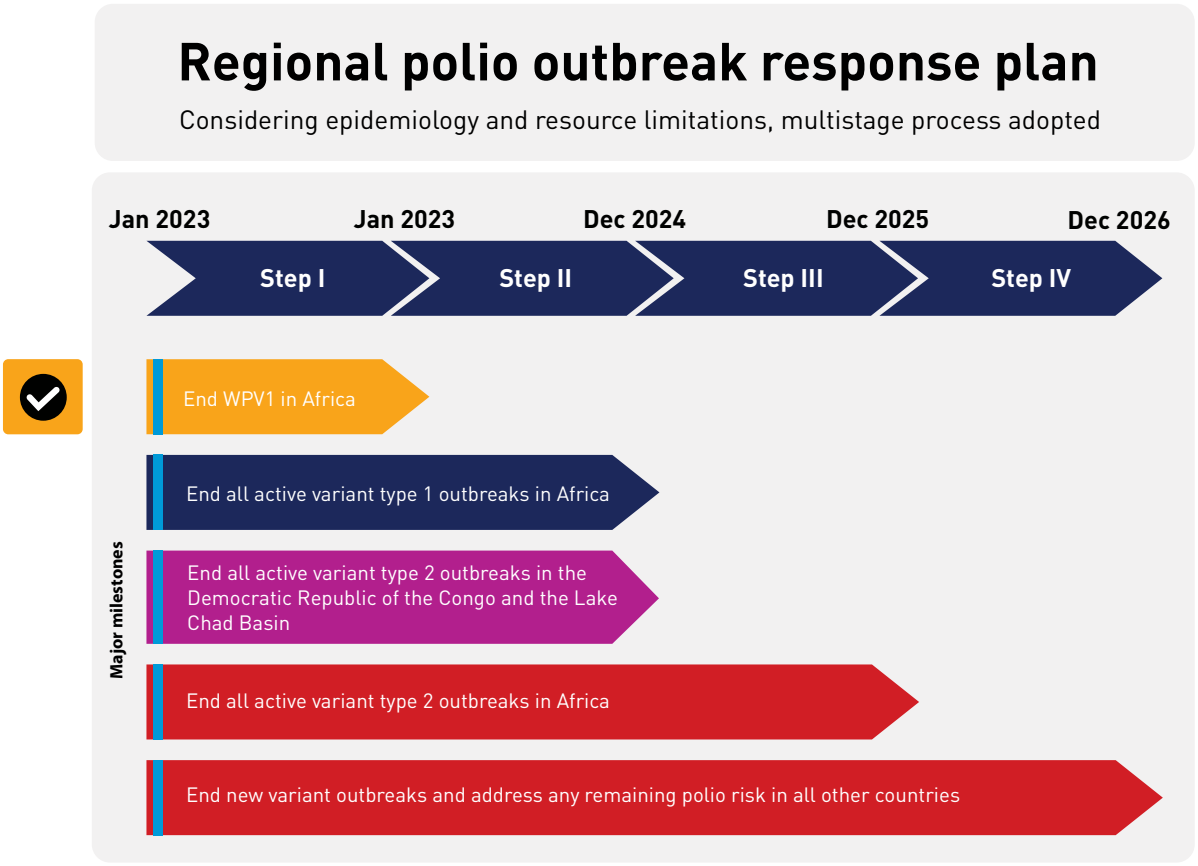
Timeline

The timeline for attaining the goals of this **African Regional Polio Eradication Action Plan** will be phased across epidemiological zones (**Fig. 3**).

Priority 1

Aim resources at the **sequential elimination** of polio from epidemiological zones.

Fig. 3. Milestones for the African Regional Polio Outbreak Response Plan



Source: WHO, 2024.

1. Objective 1

Intensify outbreak response

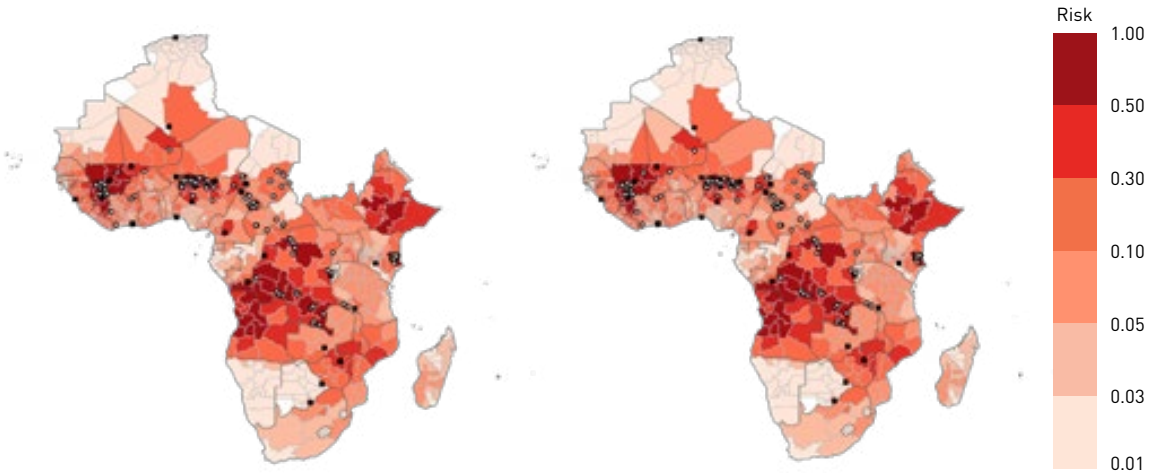
1.1 Country risk prioritization

To effectively intensify outbreak response, the programme conducts regular risk assessments. These assessments evaluate current epidemiology, population immunity and historical risks, thereby providing a predictive model of risk across the Region (**Fig. 4**). By prioritizing countries based on these risk assessments, the Region can target resources and efforts where they are most needed.

For the period of this action plan, the Region determined the following:

- **Type 1 poliovirus:** There is a high risk of spread of poliovirus type 1 across the Region, especially as circulating variant poliovirus type 1 is considered as transmissible as WPV1.
- **Type 2 poliovirus:** The risk of type 2 poliovirus transmission is widespread across the Region. Models predict an initial slowdown of transmission in areas with active transmission but with spread to new areas and to new countries. The number of infected areas will likely begin to decline in the second half of 2024 and early 2025, but only after the implementation of all phases of this action plan.

Fig. 4. Predictive model of circulating variant poliovirus risks in the WHO African Region



Source: Gates Foundation.

Based on this risk assessment, the WHO Regional Office for Africa grouped countries into five risk categories (**Table 2**). Countries at very high risk and at high risk of circulating variant poliovirus spread will be considered **priority countries** for resource allocation.

Table 2. Country risk prioritization in the WHO African Region, 2024-2025

Risk group	Countries
Very high risk	Chad, Democratic Republic of the Congo, Madagascar, Mozambique, Niger and Nigeria
High risk	Algeria, Angola, Benin, Burkina Faso, Cameroon, Central African Republic, Côte d'Ivoire, Ethiopia, Kenya, Malawi, Mali and Zambia
Medium-high risk	Botswana, Burundi, Republic of Congo, Equatorial Guinea, Eritrea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Rwanda, Senegal, Sierra Leone, South Sudan, United Republic of Tanzania, Togo, Uganda and Zimbabwe
Medium-low risk	Lesotho, Namibia, Eswatini and South Africa
Low risk	Cabo Verde, Comoros, Mauritius, Sao Tome and Principe and Seychelles

The programme has also identified **consequential geographies** with challenging environments that will require tailored outbreak response. Such consequential geographies include both *core reservoirs* and *high-risk subnational areas*.

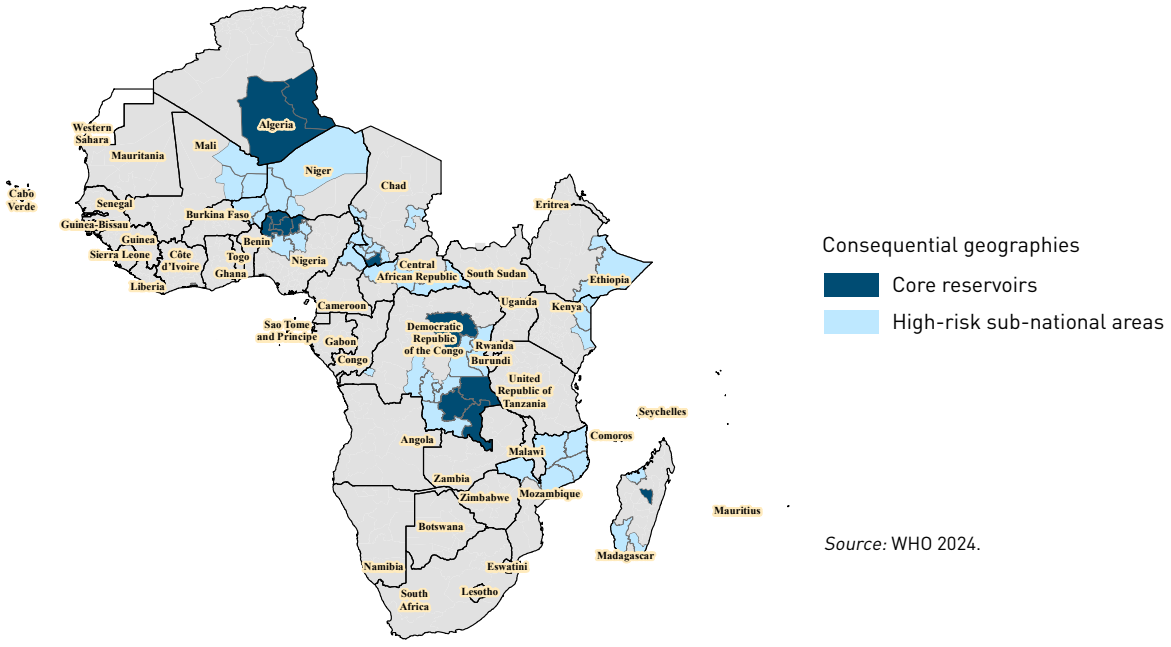
Fig. 5 shows consequential geographies as of December 2023. Furthermore, a list of core reservoirs and subnational high-risk areas will be adjusted every six months. For the most recent list, see **Annex D. Consequential geographies.**

The two kinds of consequential geographies

Core reservoirs are any province (administrative level '1') or clearly defined contiguous geographic area of not more than six provinces with persistent local transmission for *at least 24 months.*

High-risk subnational areas are provinces surrounding core reservoirs (in the same country or in neighbouring countries) that share epidemiologic characteristics and provinces (or groups of contiguous provinces, in the same epidemiological zone) in very high risk countries with ongoing transmission of *at least 12 months.*

Fig. 5. Consequential geographies within the WHO African Region, 2024-2025



Source: WHO 2024.

1.2 Supplementary immunization plan 2024-2025

The Regional Outbreak Response Group (RORG) developed a tentative SIA plan for 2024-2025 based on the country risk assessment, projected vaccine supply, and GPEI budget allocation.

Tables 3 and 4 show the proposed SIAs with bivalent oral polio vaccine (bOPV) and nOPV2, respectively.

Proposed SIAs in 2024 are subject to the availability of resources. Proposed SIAs in 2025 are considered placeholders for planning purposes and will be solidified by the RORG during the fourth quarter of 2024.

Table 3. Proposed bOPV supplementary immunization activity schedule, 2024-2025*

	2024												2025											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Angola												NID		NID										
Burkina Faso																						NID		NID
Cameroon																						NID		NID
Central African Republic																						NID		NID
Congo						NID				NID														
Democratic Republic of the Congo			SNID	NID		NID	SNID	SNID		SNID						SNID		SNID			SNID		SNID	
Ethiopia																						SNID		NID
Guinea																						NID		NID
Kenya																						SNID		SNID
Lake Chad																						NID		NID
Madagascar					NID	NID											NID		NID					
Mali																						NID		NID
Malawi																					NID		NID	
Mozambique				SNID	SNID																NID		NID	
Niger																						NID		NID
Nigeria																						NID		NID
South Sudan																					NID		NID	
Zambia																					NID		NID	

*The tentative schedule anticipates progress against type 2 by the second half of 2025 and begins to address type 1 and type 3 risk more broadly in 2025 and in 2026. Schedule is subject to change based on epidemiology and resource availability. NID = national immunization day, SNID = subnational immunization day.

Table 4. Proposed nOPV2 supplementary immunization activity schedule, 2024-2025*

	2024												2025											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Algeria				SNID						SNID		SNID												
Angola				NID			NID			NID														
Benin									NID		NID	NID												
Botswana											NID	NID												
Burkina Faso				NID						NID	NID			NID		NID								
Cameroon		NID								NID	NID													
Central African Republic			NID	NID						NID	NID													
Chad				NID			SNID			NID	NID			NID		NID								
Congo			NID					NID																
Côte d'Ivoire				SNID				SNID			NID	NID		NID										
Democratic Republic of the Congo			SNID				SNID	SNID		SNID														
Equatorial Guinea											NID	NID				NID								
Ethopia			SNID				SNID				SNID		NID	NID			NID		NID					
Gabon											NID	NID				NID								
Gambia								NID		NID		NID												
Ghana											NID	NID		NID										
Guinea				NID	SNID			NID			NID													
Guinea-Bissau								NID		NID		NID												
Kenya											SNID		NID	NID			NID		NID					
Liberia				NID	NID			NID																
Malawi										NID	NID					NID	NID							
Mali				SNID						NID	NID			NID		NID								
Mauritania			NID	NID				NID																
Mozambique										NID	NID					NID	NID							
Namibia											NID	NID		NID										
Niger				NID			SNID			NID	NID			NID		NID								
Nigeria			SNID	SNID	IBRA	IBRA	SNID	IBRA	IBRA	SNID	SNID			NID		NID								
Senegal								NID		NID		NID												
Sierra Leone				NID	NID			NID																
South Sudan		NID	NID							NID														
Tanzania											NID	NID		NID			NID							
Togo											NID	NID		NID										
Uganda														NID			NID		NID					
Zambia				SNID					NID		NID					SNID	SNID							
Zimbabwe		NID	NID						NID															

*The tentative schedule assumes full vaccine and funding availability for 2024 and implementation of all SIAs by December 2024. Any delay or non-implementation of the proposed 2024 SIA plan is likely to substantively increase needs in 2025. The plan also anticipates persistent transmission in key hotspots into the 2025 low season. It assumes efforts to address quality, accessibility and vaccine hesitancy in consequential geographies will bear fruit by the third quarter of 2025. The schedule is subject to change based on epidemiology and resource availability. IBRA = in between round activities

To support timely implementation of SIAs and to enhance quality of country-level operations, the RORG is committed to working with the global programme on ensuring vaccines and funds are in-country at least five weeks before the start of SIAs.

For new outbreaks, the initial two rounds will be funded simultaneously at 100% and 80% respectively. This will enable countries to finalize planning for pre-, intra- and post-campaign activities and to conduct the vaccination campaigns without delays.

Terms of reference for the RORG are provided in **Annex E.**

Priority 2

Given rapidly declining population immunity to type 1 and type 3, any new importation or emergence could lead to large-scale outbreak if not immediately addressed. As such, type 1 response will be prioritized over type 2, in the event of importation or new emergence in a new geography, until the acute response period is concluded (≥6 months).

Intensifying outbreak response will be pursued through four objectives:

(a) improve campaign quality;
(b) optimize vaccine management;
(c) increase vaccine acceptance through community engagement; and
(d) strengthen preparedness and capacity-building.

1.3 Objective 1a – Improve campaign quality

To end all ongoing active outbreaks in the African Region by December 2025, campaigns must be implemented in good time, their scope and target population must be correctly measured, and the right tools must be used properly throughout campaign preparation, implementation, monitoring and evaluation.

1.3.1 Challenges in 2023

In 2023, while campaign quality improved in some countries, the programme has not been able to stop transmission in the consequential geographies.

The continued detection of breakthrough cases and positive environmental samples in areas that had conducted many rounds provides evidence of suboptimal campaign quality. Challenges were found in both campaign preparation and implementation: poor operational performance at the local level due to suboptimal microplanning; inappropriate team selection; inadequate team training; limited and/or mistargeted social mobilization efforts; and insufficient community engagement. Insufficient vaccination coverage of high-risk populations, especially populations living in insecure areas, and fake finger marking were also noted as challenges.

In addition, late arrival or limited availability of needed resources, such as vaccines and funding contributed to delays, re-scoping or cancellation of planned campaigns. For example, in late 2023, planned SIAs in Cameroon, Chad, Côte d'Ivoire, Ghana, Guinea, Kenya, Liberia, Malawi, Mauritania, Mozambique, Niger, Senegal, Sierra Leone, South Sudan, Tanzania and Togo were re-scoped, postponed or cancelled owing to resource constraints. Some countries have also experienced difficulties in political engagement and government ownership, delaying the response to outbreaks.

Priority 3

Target age groups for campaigns will be determined based on the epidemiology and risk assessment. Response to type 2 outbreaks in new geographies will continue to target cohorts born after the 2016 switch from trivalent oral polio vaccine (tOPV) to bOPV.

1.3.2 Plan for 2024-2025

Enhancing SIA quality to interrupt poliovirus transmission in Africa will be achieved by meeting the four following objectives (**Table 5**).

Table 5. Objectives for improving campaign quality, 2024-2025

Objectives	Activities	Indicators
Institute management and accountability measures	• Develop a joint accountability framework in all very high risk countries; including actions for both exemplary and poor performance. • Address personnel issues by deploying competent, committed persons to consequential geographies. • Review the composition of coordination teams in countries with persistent poor SIA quality (e.g. Angola and the Republic of Congo).	• Joint accountability framework developed and implemented in Democratic Republic of the Congo and Nigeria
Ensure timely provision of resources for campaigns	• Provide funding, vaccines, human resources and other necessary supplies, and ensure all logistics are prepared at least five weeks before the start of SIAs; for new outbreaks, the initial two rounds to be funded simultaneously at 100% and 80%. • Explore prepositioning supplies and materials in a central location in the Region to facilitate rapid shipment to countries.	• Proportion of planned SIAs that have all necessary logistics and funding in place on time • Proportion of planned outbreak response rounds implemented within four weeks of receiving funding and vaccines
Target campaign quality improvements in core reservoirs	• Refresh microplans at the lowest level, review team selections, review existing tools and ensure they are fit for purpose, build capacity and enhance monitoring at the lowest level, including through the use geographic information system (GIS) tools. • Develop and implement special interventions in security - and accessibility-challenged areas (e.g. Burkina Faso, Democratic Republic of the Congo, Lake Chad Basin, Mali, Nigeria).	• Campaign quality improvement plan for consequential geographies implemented and monitored after each round • Mapping and monitoring of inaccessible populations for each SIA round in Nigeria
Strengthen cross-border coordination for synchronized campaigns	• Establish cross-border coordination support mechanisms (e.g., Lake Chad Basin and for common borders of Burkina Faso, Mali and Niger).	• Cross-border coordination mechanism established and functional in transnational consequential geographies

Table 5. cont'd...

Systematically monitor and evaluate SIAs	• Two to five rounds followed by in-depth outbreak response assessments with clear recommendations for additional action • Use new guidelines for the analysis of lot quality assurance sampling (LQAS) and trigger of mop-up activities • Explore ways of using local teams to validate quality in areas where campaign monitoring is restricted.	• Number of mop-up activities triggered following LQAS findings • Evaluation methods for campaign quality adapted to hard-to-reach areas • Proportion of planned outbreak response assessment done timely

Priority 4, priority 5, priority 6

Tightening programme operations (Priority 4) and investing in high-quality microplanning (Priority 5) will improve the **quality of the response.** Reducing delays in budget approval and prepositioning vaccines (Priority 6) will improve the **speed of response.**

1.4 Objective 1b – Optimize vaccine management

In 2023, a global nOPV2 stock constraint delayed outbreak responses in Africa and created a massive demand in technical assistance when campaigns resumed in Q2 and Q3. The onboarding of four vaccine management consultants has been instrumental to bridging the surge recruitment gap at the country level.

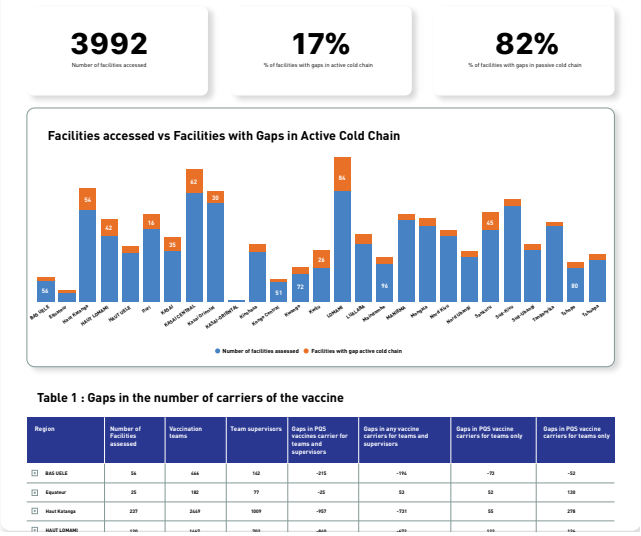
Prior to issues with vaccine availability, the plan for 2023 was focused on securing buy-in from countries on the use of electronic vaccine management tools at all levels and on supporting GPEI coordinators and logistics teams to improve promptness in withdrawing the type 2 vaccine after campaigns. Across the African Region, about 9.8 million vials of nOPV2 were distributed in 2023, and due to the vaccine management system in place, 499 missing vials were identified.

The programme also prioritized capacity-building through the provision of technical assistance to 18 outbreak countries; a training workshop for national staff and international consultants; and knowledge-sharing through the development of a community of practice for vaccine management specialists.

In terms of system strengthening, a new version of the paper-based vaccine management toolkit and related training materials were developed, as well as an open data kit (ODK) questionnaire for cold chain equipment inventory (**Fig. 6**). In addition, passive cold chains equipment was procured for 13 countries in Africa (46 500 vaccine carriers, 12 500 cold boxes, and 40 616 ice packs).

Some innovating strategies in terms of independent monitoring (IM) of vaccine management were implemented. In Guinea, the Red Cross was recruited in record time to independently monitor the use of vaccines. This innovation resulted in more accurate and trusted results and improved the completeness and timeliness of the data to 95%.

Fig. 6. Real-time snapshot of cold chain equipment inventories (Democratic Republic of the Congo RRT Portal)



1.4.1 Challenges in 2023

Despite progress, the programme faced challenges with vaccine management. National logistics plans were not systematically updated, nor were improvement plans developed. This led to missed opportunities to address gaps in cold chain or vaccine stock-outs.

For data management, limited implementation of the vaccine accountability framework led to delays in providing the required forms and stock inventories, commonly shared 1-month post-SIA (instead of 14 days), as well as delays in providing destruction reports, shared on average 2 months post-SIA (instead of 14 days). This resulted in difficulties in determining the remaining stock at the country level. In addition, performance evaluations for vaccine accountability monitors and preparedness assessments for health infrastructure are not systematically conducted.

There are also gaps in capacity for the optimal distribution of vaccine to vaccination teams. Some teams received too few vials, resulting in missed opportunities for vaccination, while others received too many, leading to unnecessary exposure of vials to heat.

1.4.2 Plan for 2024/2025

To strengthen vaccine management and address key gaps, four objectives have been identified for 2024-2025 (**Table 6**).

Table 6. Objectives for vaccine management, 2024-2025

Objectives	Activities	Indicators
Monitor vaccine management in real time	• During SIAs, systematic use of ODK questionnaires, quick data transfer and use of online real-time dashboards at national, regional and district levels are deployed. • Launch of vaccine management portal at regional level.	• 60% completeness of data • Six countries manage their stock online
Ensure one process for vaccine management in SIAs	• Encourage countries to use accountability framework and nOPV2 management tools for all bOPV SIAs, at least in the Democratic Republic of the Congo and Nigeria.	• Documented use of tools in the Democratic Republic of the Congo and Nigeria
Improve SIA preparedness and response	• Update the national logistics plan yearly. • Develop improvement plan in between rounds. • Provide priority countries with vaccine carriers and cold boxes. • Comprehensive review of cold chain and reverse cold chain in the Democratic Republic of the Congo, with special focus on the southern part of the Democratic Republic of the Congo.	• National plan updated for all priority countries • Vaccine carriers and cold boxes allocated to priority countries
Develop IM	• Develop long-term agreements with third-party contractors to manage vaccine accountability frameworks (country level). • Document the experience of Guinea and Central African Republic.	• Third-party contractors in two countries • Guinea and Central African Republic experience documented

1.5 Objective 1c – Increase vaccine acceptance through community engagement

In outbreak and at-risk countries, generating vaccine demand through context-adapted community engagement is essential for ensuring quality campaign coverage. The programme has used a range of strategies to foster vaccine acceptance from community engagement with religious and traditional leaders and youth communities to high-level advocacy forums (**Table 7**). Such context-adapted strategies improve caregivers' risk perception of polio to generate vaccine demand, while fostering community ownership of the programme and strengthening local and national political commitment.

Table 7. Community engagement strategies and activities, 2023

Strategy	Activities	Participants or audience
Training	National cascade training	Media, reporters and bloggers in outbreak countries
Community engagement campaigns	"Red Card" against polio campaign	41.3 million people over 3 months
	Project Kariya	Youth-led initiative in 107 health districts
	Web watchers	Special church and school teams in Cameroon
Advocacy	Polio/routine immunization forum	GPEI partner representatives, religious and women's leaders, and governors in the Democratic Republic of the Congo and Niger

The impact of community engagement is measurable. Youth-led digitalization initiatives in eight countries helped to reach close to 75 000 zero-dose and over 203 000 under-immunized children and facilitated close to 151 400 birth registrations. A 'Red Card' against polio campaign in the Democratic Republic of the Congo contributed to maintaining a 90% level of awareness among parents and caregivers. It will be important, moving forward, to document and assess the impact of these innovative strategies.

1.5.1 Challenges in 2023

The African Region currently faces persistently high rates of refusals in Nigeria, the Democratic Republic of the Congo and Ethiopia. Misinformation and rumours in big cities were attributed to an estimated +15% of refusals. Ultra-orthodox religious doctrines have also contributed to rising vaccine hesitancy and mistrust. Despite an awareness of these trends, country programmes have not prioritized community engagement. In high-risk areas, there has been a lack of activity planning beyond polio campaign intervals. Furthermore, country programmes have offered limited social mobilization training, deployment and supervision during SIAs, and microplanning has often lacked social and behavioural change (SBC) analyses such as social mapping and team movement plans.

1.5.2 Plans in 2024-2025

A key objective for country programmes will be to increase vaccine acceptance and overcome refusals through a variety of social mobilization activities (**Table 8**). Strategy effectiveness will be reviewed with a special focus on the core reservoirs of Nigeria and the Democratic Republic of the Congo. In areas where refusals are an issue, including areas with a relatively higher concentration of fake finger marking, the programme will revamp strategies to engage communities.

Priority 7

Devise new communication strategies to create vaccine confidence among populations, improve the demand for vaccine and ultimately improve campaign quality.

Table 8. Objectives for increasing vaccine acceptance through community engagement, 2024-2025

Objectives	Activities	Indicators
Improve vaccine acceptance	In all priority countries and core reservoirs: • Train programme staff, frontline workers in SBC. • Support countries to develop SBC in-between-rounds activities; prioritize pre-campaign outreach to community leaders and local influencers. • Assess impact of strategies through systematic datause and analysis.	• 80% of parents informed about the SIA • All SBC strategies assessed and documented
Ensure one process for vaccine management in SIAs	• Identify barriers through rapid analysis of supply and demand for immunization in the Democratic Republic of the Congo, Ethiopia and Nigeria. • Develop integrated package of tailored SBC activities in the Democratic Republic of the Congo, Ethiopia, Nigeria. • Conduct an external review on communication in the Democratic Republic of the Congo and Nigeria. • In Lake Chad Basin: develop a comprehensive plan for SBC activities, focusing on cross-border issues.	• Plans developed and implemented • Impact documented • External reviews conducted
Improve communication in/around SIAs	• Update microplans with social maps, team movement plans and other key social mobilization elements. • Continue to provide technical assistance to countries for preparing and monitoring outbreak response.	• All microplans updated prior to SIAs
Engage at the highest level to maintain momentum	In all consequential geographies: • Rebuild and sustain advocacy with decision-makers, political, community and religious leaders. • Advocate with humanitarian partners to increase investments.	• Advocacy conducted in at least three countries • Agreement with partners in at least two consequential geographies

1.6 Objective 1d – Strengthen preparedness and capacity-building

The current epidemiological context warrants that all polio-free countries in the African Region should prepare for an outbreak, as the risk of an outbreak remains present as long as there is ongoing transmission of circulating variant polioviruses. All countries neighbouring the Democratic Republic of the Congo and Lake Chad Basin countries must reinforce their capacity to respond. Furthermore,

all areas neighbouring active circulating variant poliovirus type 1 outbreaks with high population immunity gaps against poliovirus type 1 and type 3 are vulnerable.

In 2024 and 2025, the programme will focus on ensuring that all countries in the Region are ready to respond to polio outbreaks (**Table 9**). Special attention will be paid to enhancing capacity at both regional and country levels.

Table 9. Objectives for outbreak response preparedness and capacity-building, 2024-2025

Objectives	Activities	Indicators
Ensure nOPV2 readiness	• Achieve regulatory clearance for nOPV2 use in all countries. • Improve monitoring for adverse event following immunization through adverse event of special interest surveillance.	• All 47 countries have necessary documentation and clearance • Field support provided to causality assessment committees
Facilitate a skilled workforce	• Implement systematic capacity-building plans to sustainably enhance capacity in at least two very high risk countries.	• Plans implemented in the Democratic Republic of Congo and Madagascar • Detailed progress report submitted end-2024 (Madagascar), end-2025 (the Democratic Republic of the Congo)
Build country capacity	• Conduct polio outbreak simulation exercise (POSE) in countries that haven't conducted POSE or responded to polio in the past 2 years. • Build capacity for integrated acute flaccid paralysis (AFP) surveillance, including community-based surveillance (CBS) and environmental surveillance (ES) in targeted countries. • Virtually conduct certification refresher training for the National Certification Committee, the National Polio Eradication Committee and National Task Force members.	• POSE conducted in Cabo Verde, Eritrea, Equatorial Guinea, Mauritius, Sao Tome and Principe • Integrated surveillance training conducted in >5 priority countries, including in CBS • Certification refresher training on process conducted virtually

Table 9. cont'd...

Build regional capacity	• Establish a pool of outbreak response trainers at the regional level. • Expand the pool of GPEI coordinators. • Conduct leadership and team building for all GPEI coordinators	• Three consultants recruited for capacity-building and a roster of 10 surveillance consultants established for rapid deployment • Number of French speakers and female coordinators increased • GPEI coordinators and senior staff trained in leadership and team building
Integrate gender into capacity-building	• Ensure gender perspective is a core module in all trainings.	• All training courses have at least one module addressing gender and/or preventing and responding to sexual exploitation, abuse and harassment

Objective 1: What success looks like

80% of planned SIAs have been implemented in good time, targeting the right age group with the appropriate scope, scale and vaccine type.

80% of SIAs in core reservoirs have passed the LQAS success threshold.

80% of core reservoirs are on course* to stop transmission.

* Defined as at least five consecutive quarters with no detections.


WHO
OMS

2. Objective 2

Improve timeliness of detection

The GPEI currently maintains funding for surveillance in 10 countries in the WHO African Region, with the other 37 countries receiving support from the WHO base budget as part of integrated vaccine-preventable disease (VPD) surveillance. This process of transitioning funding for polio surveillance from the GPEI to WHO began in January 2022. All countries facing outbreaks receive GPEI support for surveillance strengthening activities and technical support for sample testing in WHO-accredited laboratories as part of outbreak response. Owing to the high number of countries with ongoing outbreaks, the full impact of transition on the ability to detect and respond to any poliovirus is yet to be fully understood.

High-quality surveillance is critical for eradicating all forms of poliovirus across the Region. Beyond outbreak response, the "post outbreak" period must also be carefully monitored and managed. To focus support on areas of high concern, the programme has prioritized surveillance interventions in countries based on distinct risk profiles (**Table 10**).

Table 10. Country risk profiles for acute flaccid paralysis and environmental surveillance interventions*

Risk profile	Countries*
High-risk countries with no active transmission but with suboptimal surveillance performance and immunity gaps while sharing an epidemiological zone with an outbreak country.	Angola, Ethiopia, Equatorial Guinea, Gabon, Guinea-Bissau. Liberia, Sierra Leone, South Africa, South Sudan, Togo and Uganda
Countries with active circulating variant poliovirus transmission and suboptimal surveillance performance (e.g. orphan viruses).	Chad, the Democratic Republic of the Congo and Nigeria
Southeast African countries with recent WPV1 transmission, requiring strong evidence that transmission has been stopped.	Malawi, Mozambique and the Southern African epidemiological zone

* Current as of December 2023.

Improving timeliness will be pursued through five objectives based on different surveillance and data systems, which are:

(a) AFP surveillance;
(b) ES;
(c) surveillance for immunodeficiency-associated variant poliovirus;
(d) laboratory surveillance; and
(e) data and information management.

2.1 Objective 2a – Acute flaccid paralysis surveillance

Overall, 80% of AFP cases in the African Region are notified within seven days from date of onset and 89% have two stools collected within 11 days of onset. However, there is a wide variation in performance at the country level. In both 2022 and 2023, non-polio AFP (NP AFP) rates at the regional level were ⩾ 6/100 000 and stool adequacy rates stood at 90%. In 2023, except for Eritrea, Gambia, Guinea-Bissau and the small island countries (Comoros, Mauritius, Sao Tome and Principe and Seychelles), all countries achieved NP AFP rate targets and 22 of 47 countries met the stool adequacy target. (See **Annex F** for AFP surveillance data.)

2.1.1 Challenges in 2023

The main challenges countries face in meeting timeliness targets are in the identification and reporting of cases and in the transport of specimens to laboratories.

Sensitivity at the subnational level remains an issue, particularly in areas where the surveillance network does not adequately cover hard-to-reach, security-compromised or highly mobile populations.

Such high-risk areas often exist in the common border areas of countries in the Lake Chad Basin and the broader Sahel region.

In 2023, 23 orphan viruses were detected in three countries (Chad, the Democratic Republic of the Congo and Nigeria), highlighting gaps in surveillance at subnational levels. OBRAs that were conducted in four countries (Ethiopia, Malawi, Mozambique and Nigeria) pointed to significant surveillance gaps, especially in active surveillance. Some countries also face challenges due to high staff turnover, as lack of knowledge becomes a barrier to identifying and reporting AFP cases.

Logistics challenges can also cause delays in the transport of specimens, particularly in countries that do not have a national polio laboratory or where distances and infrastructure are an issue. At the regional level, only 49% of all AFP stools arrive in the laboratories within three days of collection. Despite some progress, including through the support from VillageReach, more needs to be done to overcome these delays.

2.1.2 Plan for 2024-2025

The plan of action for AFP surveillance will revolve around four objectives (**Table 11**). These will be prioritized according to the country risk profiles of the programme for surveillance interventions (see **Table 10** above.)

Priority 8

Addressing surveillance gaps by enhancing surveillance performance in "silent" areas where undetected transmission may occur is a priority.

Table 11. Objectives for improving detection through acute flaccid paralysis surveillance, 2024-2025

Objectives	Activities	Indicators
Develop an integrated surveillance strategy	• Develop the African Region VPD surveillance strategy, outlining the approach to fully integrate poliovirus surveillance within the broader Africa VPD surveillance system.	• VPD surveillance strategy for the African Region completed by December 2025
Improve subnational surveillance sensitivity with a focus on "silent areas"	• Conduct desk reviews followed by (targeted) field surveillance reviews; focus on surveillance reviews in OBRAs. • Conduct a detailed investigation into orphan viruses and other detections suggestive of silent circulation and develop a surveillance enhancement response. • Review active surveillance network every six months with special focus on hard-to-reach populations. • Update and implement country surveillance improvement plans following ORPG review.	• Surveillance field reviews completed in at least five countries each year • All orphan viruses have been investigated and specific surveillance enhancement response implemented • Documented review of the surveillance network and health-seeking behaviour data • Country surveillance plans fully implemented
Facilitate a skilled workforce	• Cascade training on integrated polio/VPD surveillance with special emphasis on strengthening active surveillance and supportive supervision.	• Training in integrated polio/VPD surveillance conducted in at least five countries each year
Implement focused monitoring and evaluation activities	• Monitor performance regularly, including monthly reporting on KPIs and KPPIs, and monthly summary of active surveillance data using standard indicators for high-, medium- and low-priority and zero-reporting sites. • Conduct in-depth quarterly assessment of surveillance performance; provide a quarterly update on progress in completing OBRAs and other field surveillance review recommendations. • Identify reasons for underperformance and institute corrective action.	• Performance summary including KPIs, KPPIs, active surveillance data shared with countries monthly • In-depth surveillance performance update, and status of implementation of plans, recommendations from OBRAs and reviews shared with the RORG every quarter • Every quarter, specific plan of action to address emerging challenges presented to RORG for review and clearance

KPI = key performance indicators; KPPI = key process and performance indicator; OBRA = outbreak response assessment; ORPG = outbreak response & preparedness group.

2.2 Objective 2b – Environmental surveillance

As of September 2023, 42 of 47 countries in the African Region have implemented ES. ES detected transmission in areas undetected by AFP surveillance, for example, in Botswana and Zimbabwe, where ES detected circulating variant poliovirus type 2 transmission prior to an AFP case detection. In other areas, the network has added valuable information that has helped the programme assess transmission and adjust response.

The Region conducts monthly and quarterly performance reviews, followed by field reviews of underperforming sites. In 2023, the programme reviewed ES sites in six countries. While individual sites increased their detection of enteroviruses (EVs) over 12 months (47% sensitive sites versus 39% in the 12 previous months), fewer countries overall (seven of 35) are meeting the target of 80% of sites achieving an EV rate of 50% over 12 months. The percentage of sample collections supervised in 2023 (January to October) was 54% (target ≥80%). The percentage of ES electronic data usage in the Region was 74% in 2023 (Q3) compared with 61% in 2022. There has been consistently good performance in the proportion of samples reaching the laboratories in good condition. However, the volume of ES samples from poorly performing sites burdens laboratories, wastes resources and may generate a false sense of security that the virus is not circulating. (See **Annex G** for ES data.)

The programme also monitors sample transportation to the laboratory with the objective of ≥80% of samples reaching the lab within three days of collection. In 2023, 66% of the samples reached the lab in three days compared with 53% in 2021 and 2022 respectively. Reasons for delays in sample transportation are continually being investigated, with measures taken where possible.

2.2.1 Challenges in 2023

While there has been substantial progress in expanding the ES network, challenges include underperforming sites partly owing to a paucity of formal and representative sewer network; logistic constraints related to sample collection and transportation; and sustainability concerns. To overcome some of these challenges, the programme recruited consultants in 2023 to provide technical support for the optimization of ES networks.

2.2.2 Plan for 2024-2025

Given the size of the regional ES site network, it is important to optimize the network. For example, time-limited ad hoc sites might be appropriate among newly identified high-risk areas, such as a new outbreak geography, whereas a permanent site might be suitable for long-term monitoring in densely populated urban areas.

The plan of action for ES will focus on three objectives (**Table 12**). These objectives and activities will be prioritized according to the country risk profiles of the programme for surveillance interventions (see **Table 10** above). The activities are drawn from the 2024 ES workplan and the ES strategic plan 2023–2025 and are in line with the Global Polio Surveillance Action Plan 2022–2024, *(4)*.

Table 12. Objectives for improving detection through ES, 2024-2025

Objectives	Key activities	Performance indicator
Improve and optimize the quality of the ES network	• Regularly review site performance by conducting monthly desk reviews at the country and regional levels. • Country, subregional or regional teams to conduct field reviews of underperforming sites in priority countries and countries with less than 50% sensitive sites. • Systematically close: o ALL ES sites with 0% EV detection over 12 months (as per guidelines); o ALL ES sites with <30% EV detection over 24 months; and o ALL ES sites with <50% EV detection over 36 months. o The RORG may grant exceptions for sites that have reported vaccine-preventable polio cases over the past 48 months. These sites will be considered ad hoc sites. • Identify reasons for delay in sample transportation and institute corrective actions.	• ≥80% of sites with >50% EV rates, by country o 0% of sites with 0% EV detection over 12 months o 0% of sites with <30% EV detection over 24 months o 0% of sites with <50% over 36 months • 100% of newly established sites to be considered ad hoc sites; sites to be formally confirmed as functional ONLY after quality metrics are met • 100% of countries with underperforming ES visited • 80% of samples reach the laboratory within three days of collection
Review and streamline ES in high-risk, geographically diverse areas	• Encourage opening of ad hoc sites in outbreak or high-risk areas where feasible (as opposed to permanent sites). These will be time-limited and can be closed when the outbreak is declared over. • Reclassify existing sites that are opened to monitor an outbreak as ad hoc time-limited sites. • Maintain a registry of location of potential ES sites that can be opened and closed when required.	• Number of permanent sites and ad hoc time-limited sites • Registry of location of potential sites (with geo coordinates and "blue line" data)
Facilitate a skilled workforce and promote integration	• Conduct ES training as part of AFP/VPD training and/or during in-country visits. • Train countries on the application of ES electronic data tools, including during supervision/review missions. • Identify one laboratory and two pilot sites for multi-pathogen detection.	• 80% of high-risk countries with ES refresher training • 80% electronic data tools usage by countries

2.3 Objective 2c – Immunodeficiency-associated variant poliovirus surveillance

Surveillance for immunodeficiency-associated variant poliovirus began in the African Region in 2022, with pilot projects in Nigeria and Senegal in the context of the nOPV2 rollout. In 2024-2025, the Region will review and evaluate the results of these pilot projects.

2.4 Objective 2d – Laboratory surveillance

The African regional polio laboratory network consists of 16 of the 146 laboratories of the Global Polio laboratory network (GPLN). Of those 16 laboratories, 15 analyse ES and stool samples, with the final laboratory (Zimbabwe) planning to begin ES analysis soon. The number of AFP stool specimens processed by the regional polio laboratory network in 2022 and 2023 (Q3) was 33 419 and 26 313, respectively. The corresponding number of ES samples were 8675 and 6190 in the same period.

Of the 16 polio laboratories spread across 15 countries in the Region, three are regional reference laboratories (RRLs) based in the Central African Republic, Ghana and South Africa, however only RRLs in Ghana and South Africa currently offer genetic sequencing. Two polio laboratories (Angola and Niger) pre-treat their samples by concentrating them before shipment to an accredited national polio laboratory. Kenya's national polio laboratory also supports some countries (Djibouti, Somalia and Yemen) in the WHO Eastern Mediterranean Region.

2.4.1 Challenges in 2023

The targeted timeline for detection and response set by the GPEI is 35 days from onset (for AFP) or sample collection (for ES) to the final laboratory result. Analyses of sample (AFP and ES) turnaround time from arrival at the laboratory to results for positive variant polioviruses in 2023 (January to October) shows that none of the 16 laboratories consistently achieved a median turnaround time of 21 days, underscoring a persistent issue with meeting expected timelines.

This gap is more prominent in countries with a high volume of variant polio cases and isolates, specifically the Democratic Republic of the Congo and Madagascar **Annex H**).

Delays in laboratories can result from the sheer number of samples, overwhelming laboratory capacity, but also from stockouts of reagents, receipt of large batches of specimens, or ambiguities in testing outcomes that may warrant re-isolations.

2.4.2 Plan for 2024-2025

To reduce delays, the programme staff is planning to regularly monitor laboratory timeliness and institute appropriate interventions, expand sequencing laboratories and introduce new and faster methodologies for direct detection of poliovirus (**Table 13**).

Expansion of sequencing and direct detection in the laboratories consists of six main parts: (1) training of laboratories; (2) pilot/parallel testing; (3) global sequencing laboratory trouble shooting visits; (4) proficiency panel testing; (5) accreditation visits; and (6) implementation. As of December 2023, laboratories in the African Region are at different stages of this implementation process (**Annex H**).

Key activities for 2024-2025

- ☑ Expansion of sequencing, with a minimum of two additional sequencing laboratories by May 2024.
- ☑ Proficiency testing developed and shared with laboratories for MinION (Q1 2024) and DDNS/DD-ITD (Q3 Q4 2024; leads the United Kingdom National Institute for Biological Standards and Control, U.S. Centers for Disease Control and Prevention with decision (April 2024; Nov 2024).
- ☑ Positive results from DDNS and DD-ITD used for programmatic action; programmatically valuable data shared regularly by the global sequencing laboratory (GSL).

Table 13. Objectives for improving detection through laboratory surveillance, 2024-2025

Objective	Activity	Performance Indicator
Reduce workload by increasing human resources capacity	Engage additional skilled laboratory workforce (Algeria, 2; Cameroon, 2; Central African Republic, 2; Côte D'Ivoire, 2; Ethiopia, 2; Ghana, 3; Kenya, 2, Madagascar, 2; Senegal, 2; Uganda, 2; and Zimbabwe, 4).	Number of laboratory personnel engaged
Procure and distribute laboratory equipment, reagents and other supplies	Support priority laboratories with equipment and supplies in Algeria, Cameroon, Central African Republic, Ethiopia, Ghana, Madagascar, Nigeria (Ibadan), South Africa and Uganda.	Number of laboratories supported with equipment and supplies
Train laboratory personnel on new technologies and methodologies (MinION, DDNS (direct detection nanopore sequencing))	Train laboratory personnel in priority laboratories in Algeria, Angola, Central African Republic, Côte d'Ivoire, Eritrea, Ethiopia, Madagascar, Mozambique, Nigeria (Ibadan for MinION), Rwanda, South Africa, Tanzania, Zambia, Zimbabwe, for DDNS and Ghana for Sanger.	Number of personnel trained
Introduce whole genome sequencing capabilities	Provide training and appropriate sequencers to laboratory personnel in South Africa and Ghana.	Availability of whole genome sequencing capability in the regional sequencing laboratories
Improve performance and motivate personnel through supportive supervision and laboratory refurbishment	Conduct supportive supervision of laboratories in Algeria, Angola, Central African Republic, Côte d'Ivoire, Democratic Republic of the Congo, Eritrea, Ethiopia, Ghana, Kenya, Madagascar, Mozambique, Nigeria (Maiduguri and Ibadan), Rwanda, Senegal, South Africa, Tanzania, Zambia and Zimbabwe.	Number of supportive supervision visits conducted
	Collaboration with e-Health Africa to assess and refurbish laboratories in Ethiopia, Cameroon, Côte d'Ivoire, Ghana, Senegal, Uganda and Zambia.	• Number of laboratories assessed • Number of laboratories refurbished

2.5 Objective 2e – Data and information management

The data and information management team aims to streamline geographic information systems, mobile health (mHealth) and other data analytics to provide effective coordination and strengthen support both at the regional level and at the field level of operations.

In 2023, key tools and instruments to strengthen both AFP and ES and campaign data were upgraded, developed and deployed. For example, a new electronic surveillance (eSURV) companion app increases the quality of active surveillance by creating a master list of health facilities (indicating priority levels and whether they have been visited). The app was developed and piloted in Gabon and Uganda in early 2023 and is being rolled out to the Democratic Republic of the Congo, Malawi and Mozambique. Furthermore, environmental surveillance electronic data (eData) tools that were introduced in 2020 to enhance ES efforts continue to be deployed across the Region, with adoption in 73% of countries by the end of 2023.

Another key achievement is the pilot testing of the Web-Information for Action (WebIFA). This system provides integrated surveillance and lab information on a single platform and in near real-time. WebIFA has been tested in Uganda and South Sudan to support ES. The AFP component of the module, while ready for use, is pending integration with the DHIS2 platform. In line with the rollout activities, training was conducted in South Africa and Kenya.

The data and information management team continues to explore ways to enhance the programme's ability to **address gender barriers** to vaccination, including:

- A data collection framework that captures and disaggregates data by sex and age for campaign coverage, missed and zero-dose children, AFP cases and stool sample adequacy;
- Dashboards that support analysis of all age and sex-disaggregated data by in-country rapid response teams; and
- Reporting which ensures that gender-specific nuances are considered and communicated to stakeholders.

2.5.1 Challenges in 2023

A lack of funding limited the number of cascade training courses that the programme was able to offer to provincial and district level staff on the eSURV companion app, which became an obstacle to its rollout. Limited resources also explained delays in developing the app's health facility master list. For ES tools, a lack of consistency in the use of the various eData tools at country and ES site level was observed, as well as difficulties in tracking changes on ES sites (status, coordinates, name, code, collection frequency).

2.5.2 Plan for 2024-2025

The data and information management subunit has identified three major objectives to prioritize activities, in addition to the routine work performed by the subunit (**Table 14**).

The **real-time availability** and analysis of reliable **outbreak and SIA data** will lead to improved quality and timeliness of outbreak response.

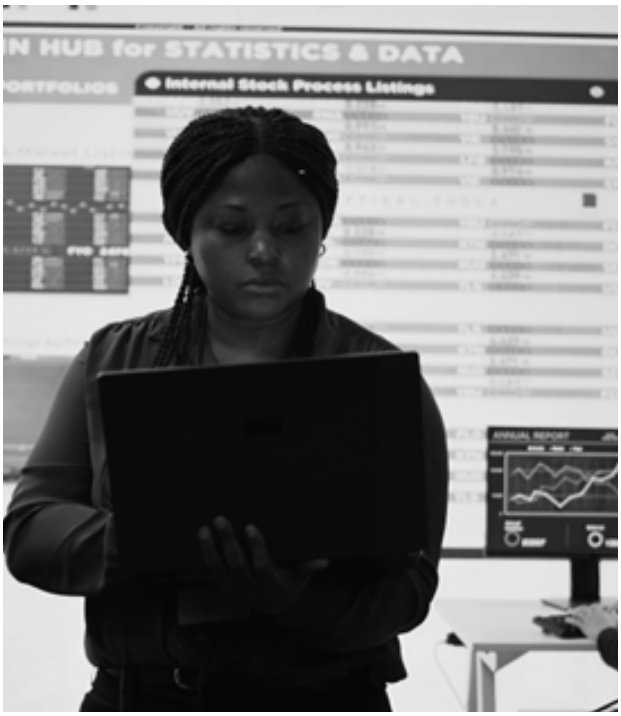


Table 14. Objectives for improving detection through data and information management, 2024-2025

Objectives	Activities	Indicators
Enhance access to quality SIA data	• Deploy the global tracking system in priority countries: Democratic Republic of the Congo, Madagascar, Mozambique. • Map all settlements in northwestern Nigeria and improve microplanning and population mapping in the eastern part of the Democratic Republic of the Congo. • Conduct an in-depth assessment of available SIA data in Madagascar to identify unreached population pockets. • Conduct data cleaning exercises for countries identified to have data gaps for IM and LQAS data (7 priority countries). • Provide training for data managers on SIA tools and LQAS and IM methodology.	• Geo-tracking system deployed to three selected countries • All settlements in northwestern Nigeria mapped and verified • Microplanning and population mapping in eastern Democratic Republic of the Congo and along major rivers improved • SIA data assessment done for Madagascar • Number of data managers trained and number of training sessions conducted
Facilitate data collection, reporting and analysis for surveillance	• Expand the rollout of WebIFA to all laboratories receiving samples from priority countries. • Deploy eSURV companion app in 15 priority countries. • Recode eData tools for ES by integrating a map-centric solution, leveraging the eSURV companion app.	• Number of laboratories using the WebIFA system for AFP and ES • Number of countries with surveillance sites master list and using eSURV companion app • 80% use eData tools in all implementing countries
Provide capacity-building and infrastructure to GIS focal points and data managers	• Provide support for systems upgrade, cloud migration and server maintenance; migrate the ODK server to the cloud. • Procure equipment for data and information management team and software for data centres.	• 90% uptime of cloud server systems • All team members are using high-performance computer systems

Objective 2: What success looks like

Increased speed of detection demonstrated through WPVs and variant polioviruses reporting final lab results within 35 days of onset (for AFP) or collection (for ES).

Surveillance performance at the country level is sufficient to ascertain absence of transmission within six months of the last WPV/circulatingvariant poliovirus detection in more than 90% of outbreak countries.


World Health
Organization

3. Objective 3

Expedite progress through integration

The GPEI strategy emphasizes the need for an integrated service delivery approach that combines polio vaccination with other essential immunization and health services to optimize outcomes and reach a broader population group.

The programme aims to expedite progress through:

(a) Integrated campaigns; and

(b) Activities related to immunization system strengthening.

3.1 Objective 3a – Integrated campaigns

Integrated SIAs add an oral polio vaccine (OPV) dose to other vaccination campaigns at limited cost.

Given the need to urgently close the Region's immunity gap amid financial constraints and the suspension of preventive SIAs, the Regional Immuniztion Technical Advisory Group has recommended including bOPV in all non-polio SIAs and catch-up activities.

3.1.1 Challenges in 2023

The African Region has implemented integrated SIAs in the past but the lack of a well-structured framework has made it challenging to document activities. For instance, in 2023, the Democratic Republic of the Congo conducted a weeklong integrated SIA for polio and measles and Malawi conducted an integrated SIA for polio with measles-rubella, typhoid conjugate vaccines and vitamin A supplements.

3.1.2 Plan for 2024-2025

To better structure integrated SIAs, the programme will pursue opportunities with measles, yellow fever and other VPDs that are financially supported by Gavi, the Vaccine Alliance (Gavi) (**Table 15**). This "add-on" will require costing by the programme. Given the lengthy application process, it is recommended that integration of oral polio vaccine (OPV) in the planned measles/VPD SIAs be considered once Gavi has confirmed its decision to fund the SIAs, which usually happens five months before the start of the campaign.

Priority 9

Integrate programme delivery whenever and wherever it does not compromise speed and quality of response, and foster integration with other antigens and other health interventions. As such, OPV will be added to VPD SIAs on a case-by-case basis, prioritizing those SIAs that contribute to polio outbreak response.

Table 15. Calendar of Vaccine Preventable Disease SIAs, 2024-2025

Countries	Measles SIAs/Yellow Fever (YF)
Benin	late 2024
Burkina Faso	April 2024
Chad	January/Febuary 2024 (measles +YF)
Côte d'Ivoire	late 2024
Democratic Republic of Congo	Q3, Q4 2024 (YF)
Equatorial Guinea	Q3 (YF)
Eritrea	mid 2024 (Selective SIAs)
Ethiopia	early 2025
Ghana	late 2024
Guinea	early 2025
Guinea Bissau	late 2024 (MR catch-up)
Kenya	mid 2025
Liberia	mid 2024
Madagascar	mid 2024
Mali	January 2024
Mauritania	mid/late 2024
Mozambique	mid/late 2024
Niger	Q3, Q4 2024 (YF)
Nigeria	Q3 2024 (in 24 States) + YF
Rwanda	mid/late 2024 (Selective SIAs)
Sierra Leone	late 2024
Tanzania	Febuary 2024 (Selective SIAs)
Uganda	Q1, Q4 (YF)
Zambia	mid/late 2024
Angola, Gabon, Equatorial Guinea – encouraged to do nationwide follow-up measles SIAs in 2024	

MR = measles-rubella; YF = yellow fever.

Integrated SIAs will be a critical strategy for mitigating the growing immunity gaps in the Region. The primary objective of the programme will be to promote integrated SIAs through the activities that coordinate across programmes (**Table 16**).

Table 16. Objectives for expediting progress through integrated SIAs, 2024-2025

Objectives	Activity	Indicators
Promote integrated SIAs	• WHO polio eradication programme (PEP) and VPD to develop a comprehensive calendar of planned SIAs for polio, measles and other VPDs and a live dashboard.	• Live dashboard online • Number of integrated campaigns
	• The WHO Regional Office for Africa to provide estimates of vaccine and additional resource requirements needed to implement SIAs.	• Integrated campaigns fully documented

VPD = vaccine preventable disease

3.2 Objective 3b – Immunization system strengthening

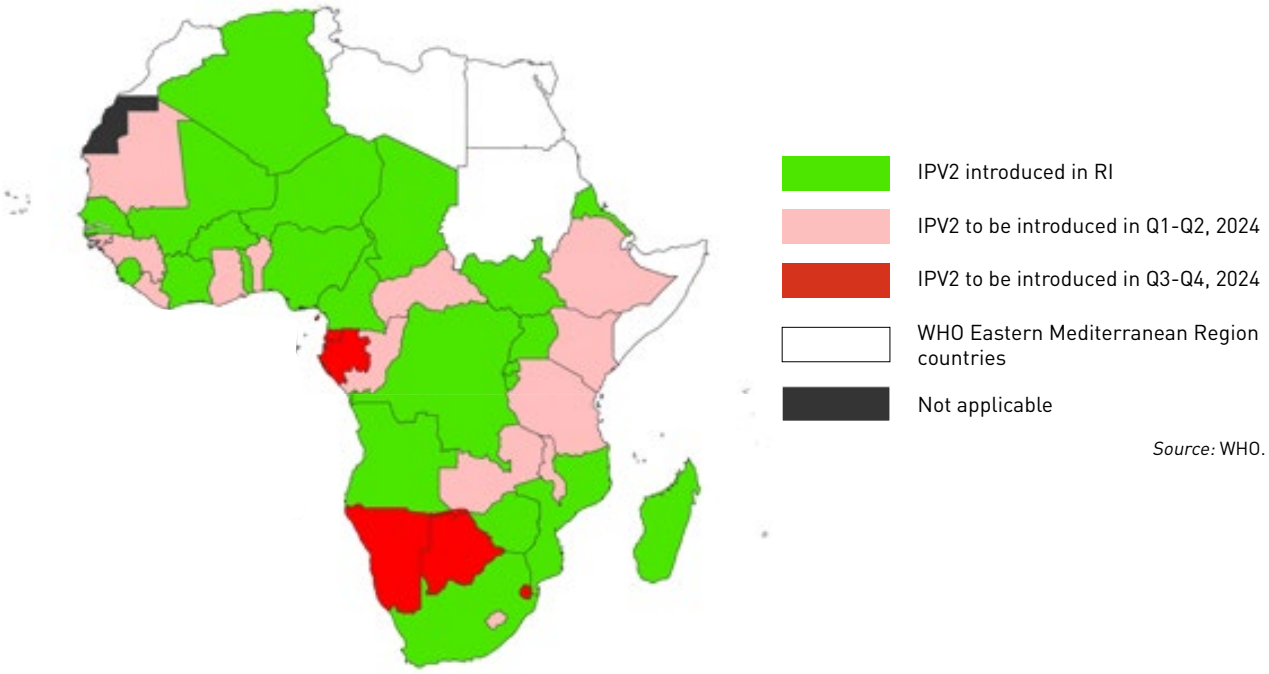
Within the African Region, low essential immunization coverage rates that initially declined owing to the COVID-19 pandemic are now further exacerbated by emerging conflict in some countries. The decline leaves increasingly more children unvaccinated and vulnerable to disease, including polio.

3.2.1 Challenges in 2023

Several large-scale VPD outbreaks in 2023 provide evidence of the very high number of unimmunized children For example, 72% of the cases of explosive measles outbreaks in the Democratic Republic of the Congo in 2023 were unvaccinated. The diphtheria outbreak in Nigeria points to immunity gaps, with only 34% of of children aged 5–15 years vaccinated. Countries with low immunization coverage are also the ones affected by circulating variant outbreaks: Nigeria, the Democratic Republic of the Congo and Madagascar are currently the hub of circulating variant outbreaks in the Region.

The introduction of a second dose of inactivated polio vaccine (IPV2) is critical to addressing immunity gaps for poliovirus and to build and sustain resilience to eradicate all forms of poliovirus. The current coverage rate for a first dose of IPV (IPV1) for the Region stands at 78%, with some variations at country level, and the IPV2 coverage rate stands at 19%. As of Q3, 2023, 24 countries in the Region have successfully introduced IPV2 in their essential immunization schedule, while 23 are yet to introduce it (**Fig. 7**).

Fig. 7. IPV2 introduction in the African Region, 2023-2024



Source: WHO.

3.2.2 Plan for 2024-2025

IPV2 introduction will be accelerated in 2024 through the activities listed in Table 17. Furthermore, to build resilience and sustain interruption after an outbreak is closed, the programme will pilot a new approach. In collaboration with immunization partners, new outreach performance and accountability measures will be established, as will a central emergency operations centre (EOC). Operations will be maintained to support microplanning and to manage and track progress towards immunization system strengthening. This "routine intensification" phase will be piloted in Mozambique (Tete and Zambezia provinces), with outcomes expected mid-2024 to inform programme efforts in integrated immunization system strengthening.

Table 17. Objectives for expediting progress through integrated systems strengthening, 2024-2025

Objectives	Activities	Indicators
Accelerate IPV2 introduction	• Conduct workshop for remaining 23 countries on IPV2 introduction. • Finalization of bottleneck analysis and readiness introduction data from the 23 countries.	• Number of countries in attendance; workshop report complete • Bottleneck analysis complete
Build resilience through strengthening essential immunization	• Ensure strong coordination with in-country expanded programme on immunization (EPI) and essential immunization partners to identify zero-dose and under-immunized communities in polio-priority geographies. • Increase access to and utilization of essential immunization services by integrating operational microplans, enhancing supportive supervision and monitoring outreach activities, harmonizing social mobilization and using new technology (such as mobile money and GIS) to support operations where necessary.	• Decreasing trend in polio zero-dose children • 80% birth-dose OPV coverage • Innovative strategies to reach access-compromised communities documented • Percentage of documented supervision visits on essential immunization by polio staff

4. Objective 4

Create urgency through advocacy

The GPEI Polio Eradication Strategy identifies the need for strong political will and national prioritization of resources created through effective advocacy.

4.1 Challenges in 2023

Recent major challenges to advocacy in the African Region include competing priorities diverting resources from polio and essential immunization efforts; strained resources impacting decision-making, planning and implementation; and campaign fatigue from multiple campaigns for polio and other VPDs that weaken the sense of urgency for polio eradication. While the WHO Regional Office for Africa and the GPEI have identified activities to address some of these challenges, robust support and accountability from local and country-level political leadership are still needed to ensure proper implementation of planned activities.

4.2 Plan for 2024-2025

A flexible, multifaceted, regional framework for polio advocacy was developed. It emphasizes the importance of context-sensitive communication, adaptive strategies and collaboration among the stakeholders (**Annex I**).

To achieve regional political advocacy activities, the WHO Regional Office for Africa, in coordination with partners, will maintain a list of proactive and reactive advocacy needs, track the outcomes of the advocacy activities conducted and refine messages and opportunities for engagement to address these needs. The programme and partners will develop advocacy tools, identify priority countries for direct advocacy support and update its advocacy plan if required (**Annex I, Table I3**). Lastly, because tpolio is one of many concerns among Member States in the African Region, integration with other programmes will need to be further explored, with consideration of other concerns of the Member States.

Priority 10

The intensification of advocacy efforts will reach out to and engage leaders and donors to renew their commitments to eradicate polio. To that end, the Regional Polio Advocacy Framework aims to maintain polio eradication as a priority in all national agendas (**Annex I**).

5. Coordination, management and oversight

5.1 Country coordination

5.1.1 National polio and immunizations emergency operations centres

The coordination of polio eradication activities in all countries with active outbreaks will be done through an **incident management system** managed by a government-designated **incident manager** who is endorsed by the Minister of Health. Outbreak countries receiving direct GPEI support will also have a designated **GPEI coordinator.**

A **national emergency operations centre** (NEOC) led by the incident manager with support from the GPEI coordinator will manage the day-to-day outbreak response, making operational decisions based on country data and coordinating emergency actions. The organizational structure of NEOCs will also include focal points on SIAs, essential immunization, surveillance, data management, communications, advocacy and other areas. In some very high risk countries and in large countries with areas of persistent transmission, subnational EOCs are established to enhance coordination. Subnational EOCs report to the NEOC. They are considered extensions of the NEOC and have structures that are adopted from the NEOC and adapted to local needs.

NEOCs will also provide direct support to the country's EPI on accelerating the implementation of essential immunizations improvement plans with a special focus on priority subnational areas facing other VPD outbreaks.

5.1.2 GPEI country support

GPEI country support will be coordinated through the RORG and designated facilitators for specific epidemiological coordination blocks. These coordination block facilitators will support countries in ensuring that resources are appropriately allocated and utilized.

A **gender-balanced workforce** is a critical enabling factor for stopping poliovirus transmission. In 2024/2025, the programme will prioritize:

- Stablishing safe work environments aligned with local gender norms, and implementing policies and practices that promote inclusivity, respect and support for all team members,
- Offering women capacity-building opportunities to empower their participation in senior-level decision-making and to promote diversity in leadership; and
- Recruiting and retaining personnel to achieve gender balance in social mobilization, community engagement and other public-facing teams.

5.1.3 Technical advisory group

In Nigeria, the expert review committee will continue to meet annually or biannually to review progress. These experts contribute critical insights and recommendations to enhance the national strategy on polio eradication and enhancing essential immunization. The RORG will work with the country NEOC to explore ways of revamping the expert review committee and enhancing its efficiency and effectiveness. The RORG will also explore the need for additional country-level or multi-country technical expert groups on polio eradication and immunization.

5.1.4 Country-level assessments and reviews

The RORG will implement OBRAs in targeted countries every year. The RORG will also identify countries targeted for external surveillance reviews, external vaccine management reviews

and external communication and community engagement reviews. RORG management decisions will be based on epidemiology, government engagement and qualitative feedback from countries. These reviews play a crucial role in assessing progress, enabling programme oversight and providing input on how to improve the country's responses. RORG proposed plans will be updated every six months. All plans are subject to country-level review and clearance. **Table 18** below shows tentative plans for 2024 and 2025.

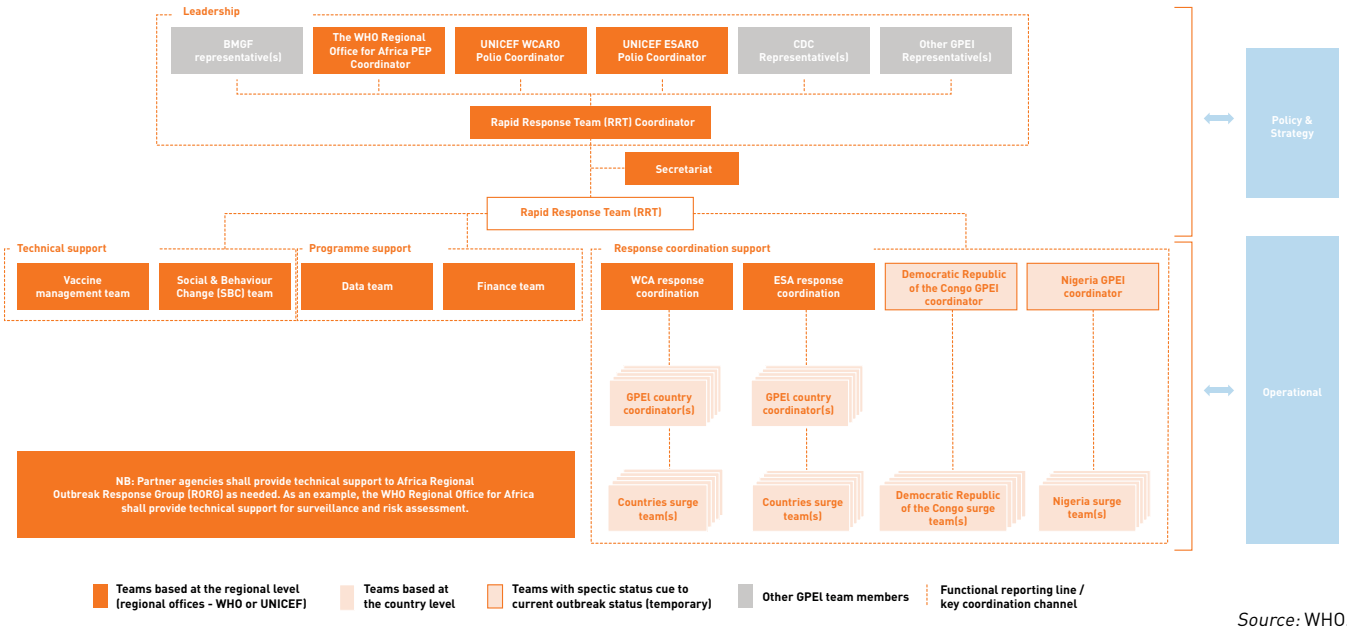
Table 18: Proposed timelines for major programmatic assessments and reviews

Type of OBRAs	Modality	Countries	Timeline
For course correction	Desk and field reviews	Algeria	July 2024
	Desk and field reviews	Democratic Republic of the Congo	August 2024
	Desk and field reviews	Madagascar	May 2024
For outbreak closure	Field review	Burundi	August 2024
	Desk review	Malawi	May 2024
	Desk review	Mozambique	May 2024
	Field review	Rwanda	August 2024

5.2 Regional coordination

The **RORG** oversees strategy and planning for regional outbreak response activities. The RORG is composed of all GPEI partners. The terms of reference for the RORG are provided in **Annex D.** The RORG leaders focuses on policy, strategy and coordination between regional partners and global GPEI entities. A dedicated regional **rapid response team** within the RORG focuses on country operational support (**Fig. 8**).

Fig. 8. Regional outbreak response coordination structure



Source: WHO.

A **regional polio immunizations operations centre** (ROC) that supports the RORG has been established. The ROC assesses country needs and prioritizes quick action in support of country operations. The ROC meets daily to review new events, to assess programmatic implications and to monitor progress on key operational milestones, including campaign preparedness, funding distribution, vaccines delivery and workforce coordination. The ROC operations team is empowered to reach out to anyone at any level at any time to ensure timely response to outbreaks and timely country-level implementation.

6. Resource requirements

6.1 Vaccines

The global supply of nOPV2 is currently limited by the manufacturing capacity of BioPharma, which is the sole manufacturer at present. However, this scenario is expected to improve in late 2024 when a second manufacturer, BioE, will commence production.

In response to the limited supply, the Operational Response Group (ORPG) and the Regional Operational Response Group (RORG), in consultation with the Global Polio Eradication Initiative (GPEI) Strategy Committee (SC), have established a prioritization scheme for response campaigns specifically in the African Region. The nOPV2 vaccine requirements are developed at the regional level through epidemiological analyses, risk assessments and modelling of the scope of campaigns with the highest likelihood of stopping transmission.

Global supply of bOPV depends on multiple manufacturers and global demand. There are no current foreseen supply constraints for bOPV.

6.2 Finance

The GPEI outbreak budget for 2024 is US $438 million based on ORPG and on regional planning and review and approval by the GPEI SC (**Table 18**). This budget covers all global polio outbreak costs, including African regional management teams and campaign responses. There is no annual allotment for the African regional response. Through regular discussions between the ORPG and the RORG, and consultations with the SC, there is a prioritization of available budget and funding for response campaigns in the African Region.

Table 19. GPEI budget prioritization and resources, 2024

Line	2024 Budget Category	Budget in US $ (millions)	Resources in US $ (millions)	Unfunded/(Surplus)
Priority 1				
A	Pakistan	191	191	-
B	Afghanistan	89	89	-
C	Outbreak response	388	345	43
D	Vaccine procurement for outbreaks (nOPV2)	84	84	-
E	The WHO Regional Office for Africa 10 + Somalia: TA, surveillance RC, labs	69	70	1
F	Global Lab & direct detection	2	2	-
G	Surveillance HQ & RO	46	46	-
H	Core Infrastructure: HQ & RO	41	41	0
I	Gender	3	3	0
P	Vaccines - storage/transfer	10	10	-
Z	Indirect costs	68	64	4
Sub-total Priority 1		**992**	**945**	**46**

Even though the shortfall is within less than 5% of the projected available resources, it would need to be addressed soon given the criticality.

Table 19. cont'd...

Priority 2				
R	Outbreak response	50	-	50
N	Vaccine procurement for outbreaks (nOPV2)	11	-	11
S	Global Lab & direct detection	2	-	2
T	Gender	3		3
O	Planned preventative bOPV campaigns	38	-	38
U	Vaccines - storage/transfer	5	-	5
Z	Indirect costs	8	-	8
Sub-total Priority 2		**117**	**-**	**117**
Grand Total 2024		**1109**	**945**	**163**

Priority 2 activities to be funded only if/when funds allow, and after explicit approval by SC.

Total projected expenditure for full 2023 (based on Q3 actual spend) of 817–894 millions of US dollars of which:

- Pakistan (Line A) US $145 million (US $195 million in 2022)
- Afghanistan (Line B) US $90 million (US $77 million in 2022)
- Outbreaks (Lines C & R) US $365 million (US $325 million in 2022)
- Vaccines (Lines D, P, N, U) US $41 million–113 million

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[1] All references were accessed on 24 May 2024.

Annexes

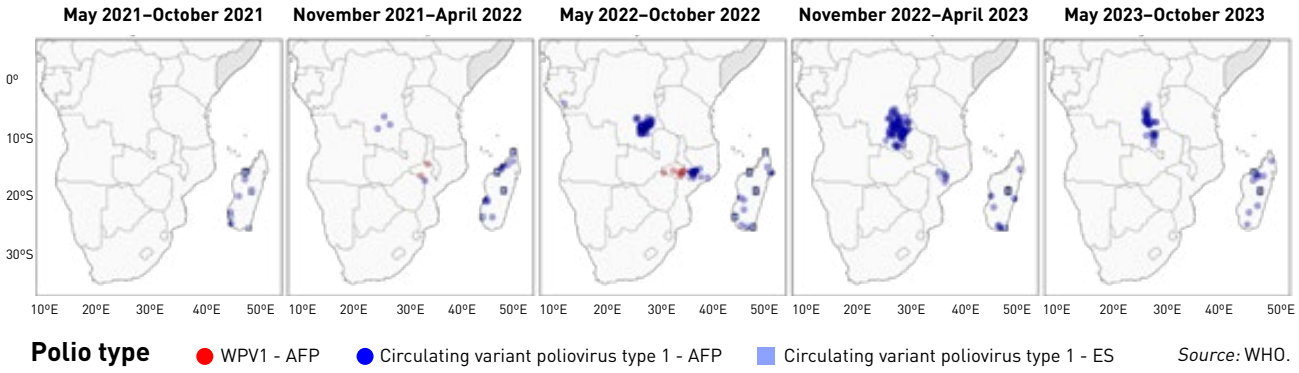
Annex A. Current epidemiological context

1.1 Poliovirus type 1

WPV1: The WHO African Region was declared free of indigenous wild poliovirus (WPV) in 2020, after the last indigenous WPV1 was reported in 2016 in Nigeria. In February 2022, however, a case of WPV1 was reported from Lilongwe in Malawi (with onset of paralysis dating to 19 November 2021). Genetic sequencing of the case confirmed linkages to ongoing circulation in Afghanistan and Pakistan. Subsequently, eight additional cases were reported from Tete Province in neighbouring Mozambique, with the most recent case having had an onset of paralysis dating to 10 August 2022. Of the nine total WPV1 cases reported, five (56%) were children older than five years and only four (44%) had received three or more doses of OPV through essential immunization. The cases were all clustered in areas with high population mobility and very close to international borders (**Fig. A1**).

Circulating variant poliovirus type 1: The decline in essential immunization in high-risk areas and the cessation of funding from the GPEI for preventive SIAs has increased the risk of new emergence and expansion of circulating variant poliovirus type 1 transmission. From 9 May 2023 to 8 May 2024, 67 confirmed cases of paralysis in the Region were associated with circulating variant poliovirus type 1. Five countries (Republic of Congo, the Democratic Republic of the Congo, Madagascar, Malawi and Mozambique) have reported circulating variant poliovirus type 1 over the last 24 months. Genetic sequencing suggests transmission in Madagascar has persisted for more than five years, with its most recent circulating variant poliovirus type 1 dating to September 2023. Transmission across Malawi and Mozambique is estimated to have persisted for four years, with the most recent circulating variant poliovirus type 1 detected in Malawi in November 2022 and in Mozambique in November 2023. In the Democratic Republic of the Congo, following the initial emergence of circulating variant poliovirus type 1 in the southeastern provinces in early 2022, outbreaks have rapidly expanded, with 262 cases reported from six provinces (as of 9 May 2024). The country's most recent circulating variant poliovirus type 1 was found in an AFP case with onset of paralysis in February 2024. Only one case of circulating variant poliovirus type 1 was reported from the Republic of Congo; its emergence was linked to transmission in the Democratic Republic of the Congo, with its onset dating to 15 October 2022 (**Fig. A1**).

Fig. A1. Distribution of type 1 polioviruses in the African Region, 2021–2023



Source: WHO.

Following the confirmation of poliovirus type 1 in Malawi and Mozambique, multi-country response rounds using bivalent oral polio vaccine (bOPV) were implemented. Neighbouring countries (Tanzania, Zambia and Zimbabwe) were also included in the overall response. Similarly, Madagascar ramped up response to the ongoing outbreak. The country implemented four nationwide bOPV rounds in 2023. The response in Madagascar was expanded to all age groups in four regions and all children <15 years of age in the rest of the country. The Democratic Republic of the Congo conducted one 34 subnational and two nationwide rounds, while the Republic of Congo and neighbouring Angola (as part of the multi-country response) also conducted two nationwide response rounds. In the first part of 2024, additional bOPV rounds are planned in the Republic of Congo, the Democratic Republic of the Congo, Madagascar and Mozambique (**Fig. A2**).

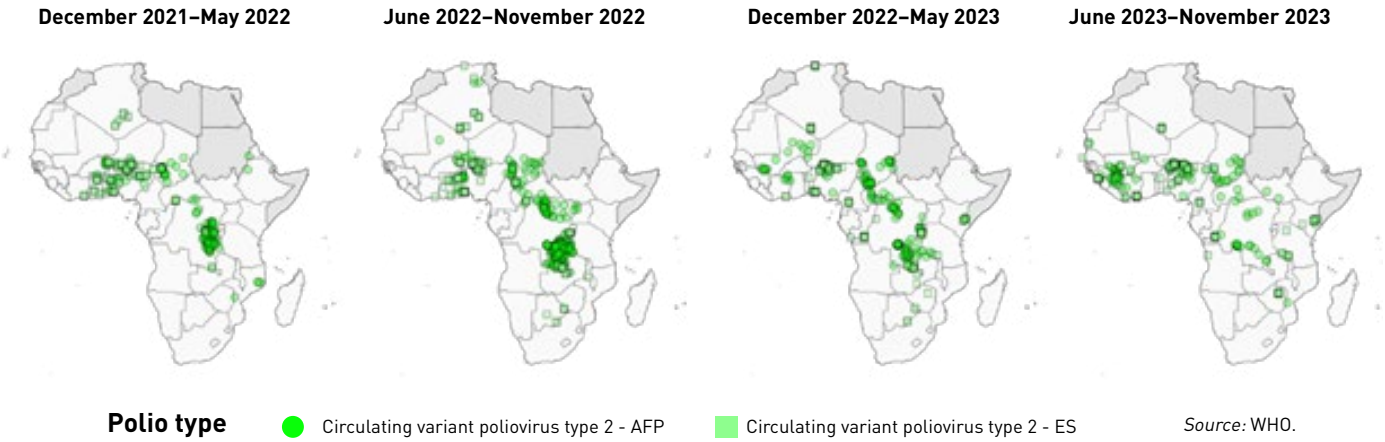
Fig. A2. Supplementary immunization activities (SIAs) in Central and Southern Africa, 2023–2024

Source: WHO. Data as of 9 May 2024.

1.2 Poliovirus type 2

Following the cessation of use of trivalent oral poliovirus vaccine (tOPV) and the switch to bOPV in 2016, the Region has seen a significant increase in circulating variant poliovirus type 2 outbreaks. Since 2016, 2414 cases and 1253 positive environmental isolates of circulating variant poliovirus type 2 were reported from 34 countries (as of 9 May 2024). Over the last 12 months, 26 countries have reported circulating variant poliovirus type 2 cases or isolates (**Fig. A3**). Among these 26 countries, 13 countries have persistently reported cases and/or isolates for more than 12 months, 17 countries are experiencing recurrent outbreaks following re-importation and/or re-emergence, and six countries are experiencing their first circulating variant poliovirus type 2 outbreak.

Fig. A3. Distribution of circulating poliovirus type 2 in the African Region, 2021–2023



Source: WHO.

Annex B. Assessment of progress, risks and challenges

2.1 Assessment of progress

In 2023, constraints imposed by limited funding and an interruption in supply for nOPV2 vaccine impacted the capacity of the programme to proactively address risks across the WHO African Region.

Consequently, a phased-elimination approach was adopted that aimed to stop the transmission of WPV1 by December 2023, stop the transmission of circulating variant poliovirus type 1 by December 2024 and stop the transmission of circulating variant poliovirus type 2 by December 2025. Outbreak response plans were prioritized according to these near-and medium-term goals.

The following actions were also taken:

Political advocacy and technical support were provided to geographies targeted for elimination by December 2023 and December 2024.

- Regional risk assessments and response plans were harmonized to address transnational risk.
- Leadership and coordination at the country level were strengthened, particularly in areas with WPV1 and circulating variant poliovirus type 1 transmission and hotspots of circulating variant poliovirus type 2 transmission (Democratic Republic of the Congo, Madagascar, Malawi, Mozambique, Nigeria, Zambia and Zimbabwe).
- A new biannual strategy review and planning process was established to review progress against targets and address emerging challenges.
- Enhanced preparedness was implemented in countries at high risk of outbreaks.

The shift in approach produced some near-term successes.

The African Region is on track for goals related to type 1 transmission: the last case of WPV1 was reported in August 2022 and significant progress has been made against circulating variant poliovirus type 1 in all countries with ongoing outbreaks.

- The Region has implemented 98% of planned and approved SIAs.
- Robust OBRAs have been conducted in key countries including Ethiopia, Malawi, Mozambique, Nigeria, Tanzania and Zambia.
- In East and Southern Africa, 100% of countries targeted for accelerated verification for use of nOPV2 vaccine have completed the verification process and nine countries have implemented POSEs.

2.2 Risks

The Region continues to face two primary risks that threaten to destabilize this progress: expanding population immunity gaps across epidemiological zones and issues related to vaccine supply.

2.2.1 Population immunity

The population immunity gap for all three polio serotypes is expanding rapidly. **Fig. B1** shows estimates for mucosal immunity for children between 6 and 36 months for all three poliovirus types. Mucosal and humoral immunity at the population level is estimated by considering both OPV coverage from SIAs and coverage from OPV and IPV use in the EPI.

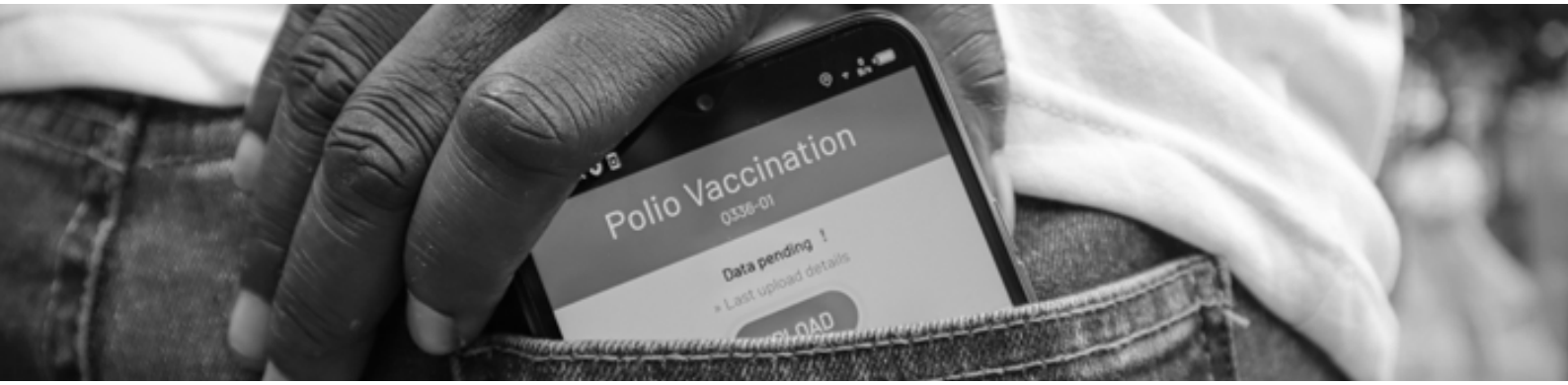
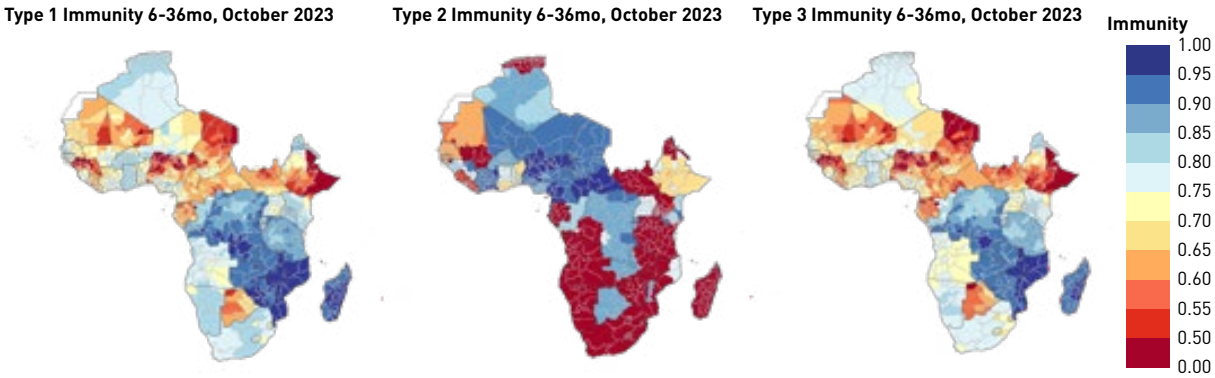


Fig. B1. Population mucosal immunity estimates against all three poliovirus serotypes



Source: Gates Foundation

Type 1 immunity has substantially increased in Angola, Republic of Congo, the Democratic Republic of the Congo, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe over the past 12 months owing to several SIAs with bOPV. However, across the Sahel Belt, there are significant type 1 immunity gaps, specifically in the Central African Republic, Chad, Guinea, Mali, Niger, Nigeria, South Sudan and parts of Ethiopia and Kenya. The risks of circulating variant poliovirus type 1 emergence and spread or importation are increasing rapidly, particularly given high levels of cross-border population movement.

Type 2 immunity has increased in the Central African block, thanks to a series of nOPV2 SIAs. There are, however, significant localized gaps in immunity at the subnational level in areas with persistent transmission. West African countries (Gambia, Guinea, Guinea-Bissau, Liberia, Mauritania, Senegal and Sierra Leone) have a heightened risk of type 2 emergence, given that they border countries with active type 2 transmission and have yet to close their type 2 immunity gaps. Countries in East and Southern Africa are also increasingly vulnerable.

Type 3 immunity closely mirrors that of type 1. Despite the declining type 3 immunity, no sustained transmission of circulating variant poliovirus type 3 has been observed in the Region. However, the risk of type 3 emergence and spread is increasing rapidly.

2.2.2 Vaccine supply

Vaccine supply remains a major challenge. Even though the global shortage of nOPV2 was eased in the second half of 2023, the continued reliance on a single manufacturer means that the risk of new disruptions persists.

2.3 Challenges

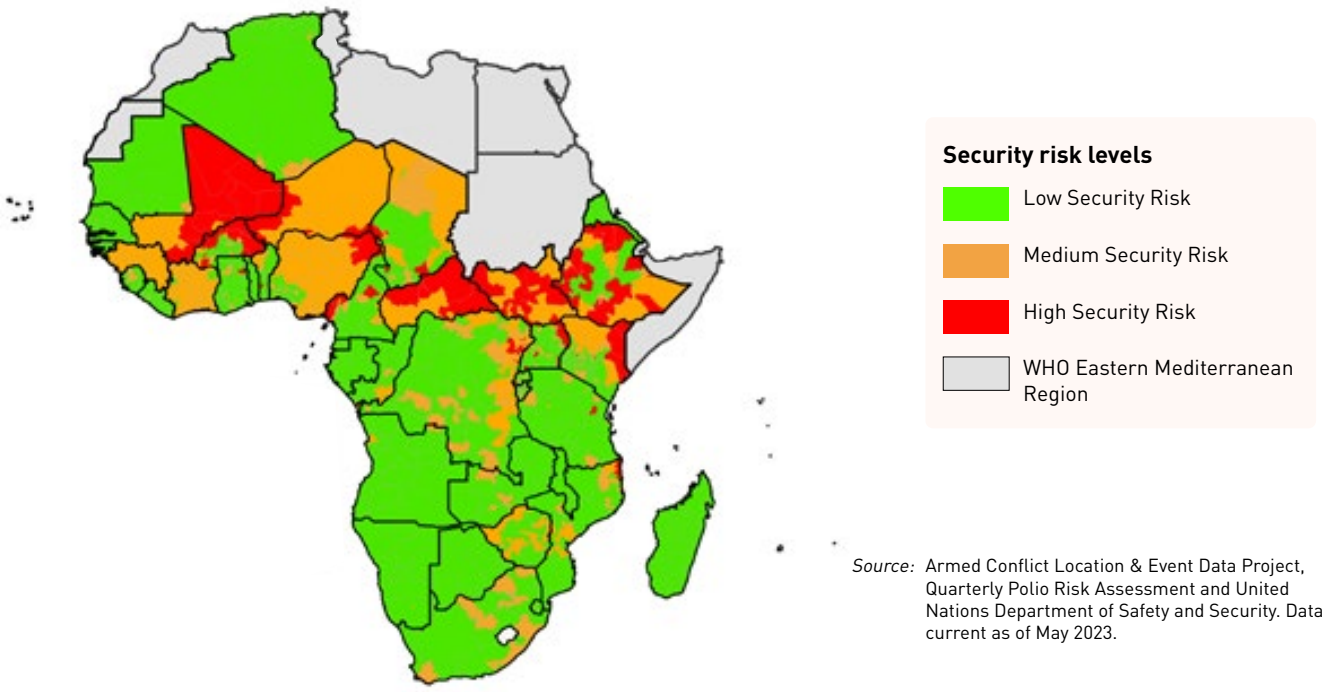
In addition to risks related to population immunity and vaccine supply, the Region faces a series of challenges.

- **Resources:** Owing to constrained resources for vaccines and funding, only 38% of the needed resources were available in January 2023. This led to a difficult prioritization for outbreak response, with priority given to ending type 1 transmission.
- **Operational inefficiencies:** Delays in detecting and swiftly responding to outbreaks have been attributed to a limited number of sequencing laboratories and the inability of the programme to rapidly expand sequencing capacity, as well as persistent gaps in subnational surveillance for AFP, particularly in West and Southern Africa.
- **Complacency and mistrust:** Across the Region, the programme faces challenges related to the public perception of polio. There is both a marked reduction in the perceived threat of polio following the declaration of the Region as WPV-free, and an increase in vaccine hesitancy due to a rise in misinformation and rumours, particularly among ultra-orthodox religious communities.
- **Multiple crises:** Major weather events and political upheavals across the Region have led to humanitarian crises in multiple countries, which have contributed to complex

environments that affect the ability of the programme to reach at-risk populations.

- **Insecurity and conflict:** Many countries are experiencing extreme political instability (**Fig. B2**). Ethnic and resource-based conflicts are often exacerbated by the presence of armed groups. These conflicts have led to significant displacement of populations and have led to the closure of health facilities in several areas, impacting access to health services for vulnerable populations.

Fig. B2. Access and security situation across the Region in 2023



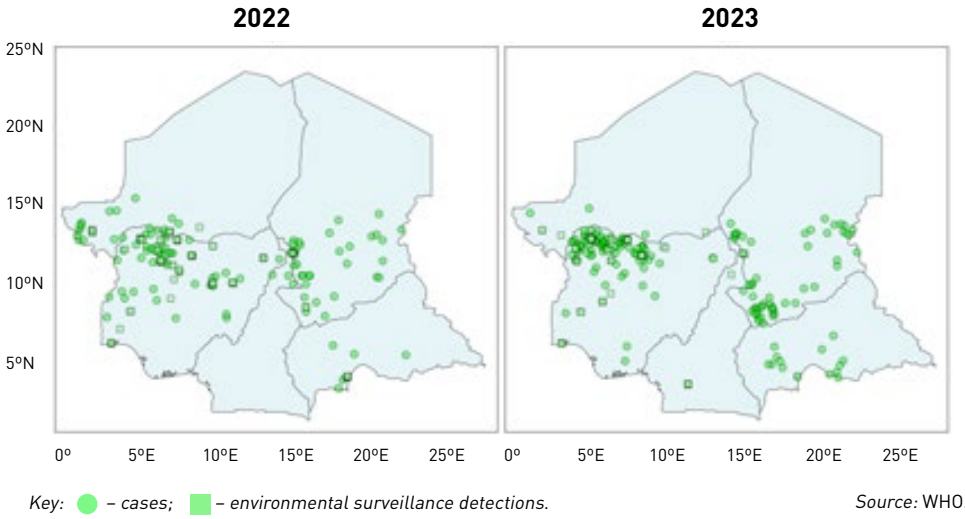
Source: Armed Conflict Location & Event Data Project, Quarterly Polio Risk Assessment and United Nations Department of Safety and Security. Data current as of May 2023.

Annex C. Priorities by epidemiological zones

3.1 Lake Chad Basin

The road to zero polio in the WHO African Region depends on ending polio in the Lake Chad Basin epidemiological zone, which consists of five countries: Cameroon, the Central African Republic, Chad, Niger and Nigeria. Over the past two years, type 2 transmission has persisted across all five countries, which now represents the engine of transmission of poliovirus type 2 (**Fig. C1**).

Fig. C1. Distribution of poliovirus type 2 across the Lake Chad Basin countries, 2022-2023



Key: ● *– cases;* ■ *– environmental surveillance detections.* *Source:* WHO.

The main challenge across this zone is insecurity, primarily through a rise in ethnic and resource-based conflicts. Competition over diminishing resources, as Lake Chad has shrunk in size owing to environmental changes, exacerbates tensions. Porous borders in the Region have also allowed for the movement of armed groups, with the violence causing significant displacement. Surges in refugee populations further strain resources and contribute to regional instability.

Northwestern **Nigeria** is severely affected by insurgency. The states of Zamfara, Katsina, Niger, Sokoto and Kaduna are particularly plagued by banditry and gangs. These groups engage in cattle rustling and kidnapping for ransom alongside violent attacks on communities. In other parts of northern and central Nigeria, nomadic herders and settled farming communities clash in competition over land and resources. The security situation affects economic development, disrupts livelihoods and creates humanitarian challenges.

In Nigeria, vaccine shortages in the first half of 2023 limited the country's ability to respond with SIAs. Response accelerated in the second half of 2023, with four rounds implemented by December 2023.

To address persistent transmission in Sokoto, Zamfara and other northwestern states, the Nigeria country team developed supplemental interventions by working with community interlocutors and third-party nongovernmental organizations to conduct in-between round activities with hard-to-reach populations. Multi-antigen interventions were also used, such as an intensification of essential immunization, a fractional dose of the inactivated polio vaccine (fIPV) and the introduction of polio "plusses" to increase demand. However, delays in funding and challenges in planning and executing multiple interventions contributed to suboptimal campaign quality.

In 2023, all planned response rounds were implemented in **Niger** and **Chad**. In **Cameroon**, two SNIDs in the northern region and two SNIDs in the southern region were successfully implemented. However, the nationwide round that was planned for December during the low transmission season was postponed owing to funding challenges. In the **Central African Republic,** two nationwide response rounds were implemented, but with difficulty and planned rounds for November and December were postponed to 2024 owing to funding challenges.

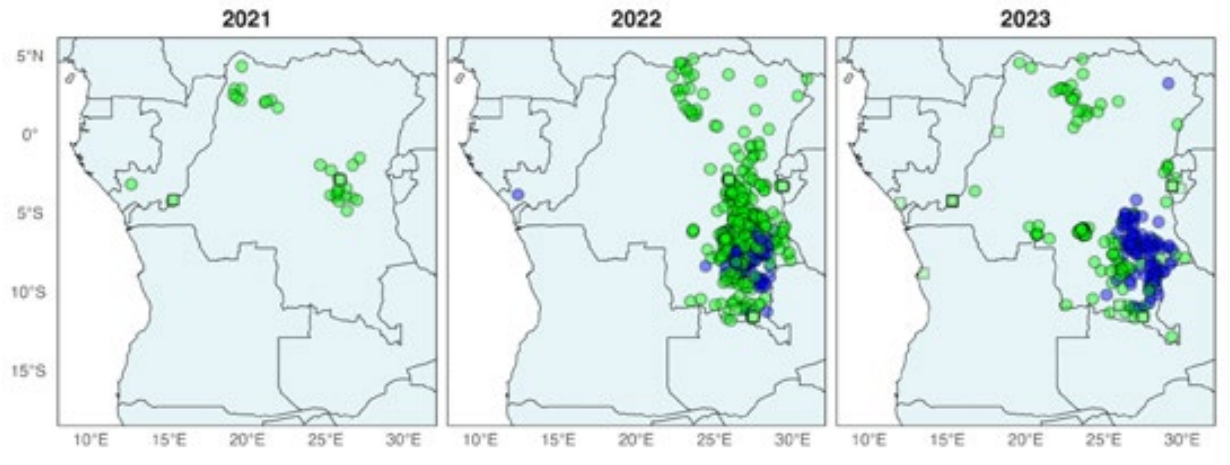
Priorities for 2024-2025

1. Substantially increase government commitment through consistent high-level advocacy.
2. Enhance coordination and technical support to all countries across the Lake Chad Basin.
3. Support high-quality coordinated response rounds across all five countries.
4. Conduct a minimum of two nationwide rounds and up to five rounds before the end of 2024.
5. Implement targeted special interventions in northwestern Nigeria to ensure that at least 95% of settlements are reached multiple times; assess the proportion of settlements reached at least three times over six months.
6. Increase surveillance quality by conducting high-quality field surveillance review and implementing recommendations, including trainings.

3.2 Central/Equatorial Africa

The Central/Equatorial Africa epidemiological zone consists of seven countries: Angola, Burundi, the Republic of Congo, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, and Rwanda (**Fig. C2**). Some of the challenges faced by this zone include concurrent outbreaks of measles, yellow fever and cholera; shortages of funds that prevented the development of comprehensive microplanning, leading to an underestimation of populations; delays in paying all service providers; delays in the transportation of vaccines and supplies; and delays in the deployment of central and provincial supervisors. While gains were made in controlling outbreaks, the timeliness and quality of outbreak response in the subregion suffered.

Fig. C2. Distribution of poliovirus type 1 and type 2 in Central/Equatorial Africa, 2021–2023



The **Democratic Republic of the Congo** faces complex, interlinked challenges. The country has significant health challenges, including outbreaks of yellow fever, cholera, measles and Ebola virus disease, which strain limited health care resources. The Democratic Republic of the Congo

has numerous active militia groups, particularly in its eastern provinces, which contribute to insecurity. These groups are involved in various conflicts fuelled by ethnic tensions, control over natural resources and regional rivalries. Ongoing conflicts and violence have led to significant humanitarian crises, with millions of people internally displaced. The instability also has regional implications, with spillover effects into neighbouring countries.

Since 2017, the Democratic Republic of the Congo has seen continuous circulation of poliovirus type 2. Outbreak response in the country, while successful at eliminating specific emergent lineages, has never been adequate in both scope and quality to eliminate the emergence of new transmission chains. Since 2022, response efforts were further complicated by the emergence of poliovirus type 1 outbreaks in the southeastern part of the country. Decreased investment in preventive SIAs with bOPV and delays in responding to initial detections have led to one of the Region's largest poliovirus type 1 outbreaks in recent years. In 2023, however, the country programme made substantial progress towards ending all polio transmission. National and subnational response coordination was strengthened with the reinvigoration of the NEOC. With improved leadership and coordination at all 40 levels, the capacity to implement response activities increased. In the second half of 2023, the Democratic Republic of the Congo successfully implemented three nationwide campaigns.

Beyond the Democratic Republic of the Congo, poliovirus type 1 and type 2 have both spread to the **Republic of Congo.** Early detections resulted in quick response, albeit of suboptimal quality. Following detections in **Burundi**, joint response rounds were successfully implemented in Burundi, **Rwanda** and the western region of **Tanzania.** Leadership by the governments of the Republic of Congo, Burundi, Rwanda and Tanzania led to quick action. While the risk of further transmission has substantially reduced in Burundi and Rwanda, more action is needed across the epidemiological zone to reduce the risk of resurgence and ensure elimination.

While **Gabon** and **Equatorial Guinea** have not reported any outbreaks, the risk of importation remains very high, particularly as these two countries have historically experienced spillover transmission from neighbouring countries. Population immunity against polio in the two countries has moreover substantially declined over the past years, making the countries even more susceptible.

Priorities for 2024-2025

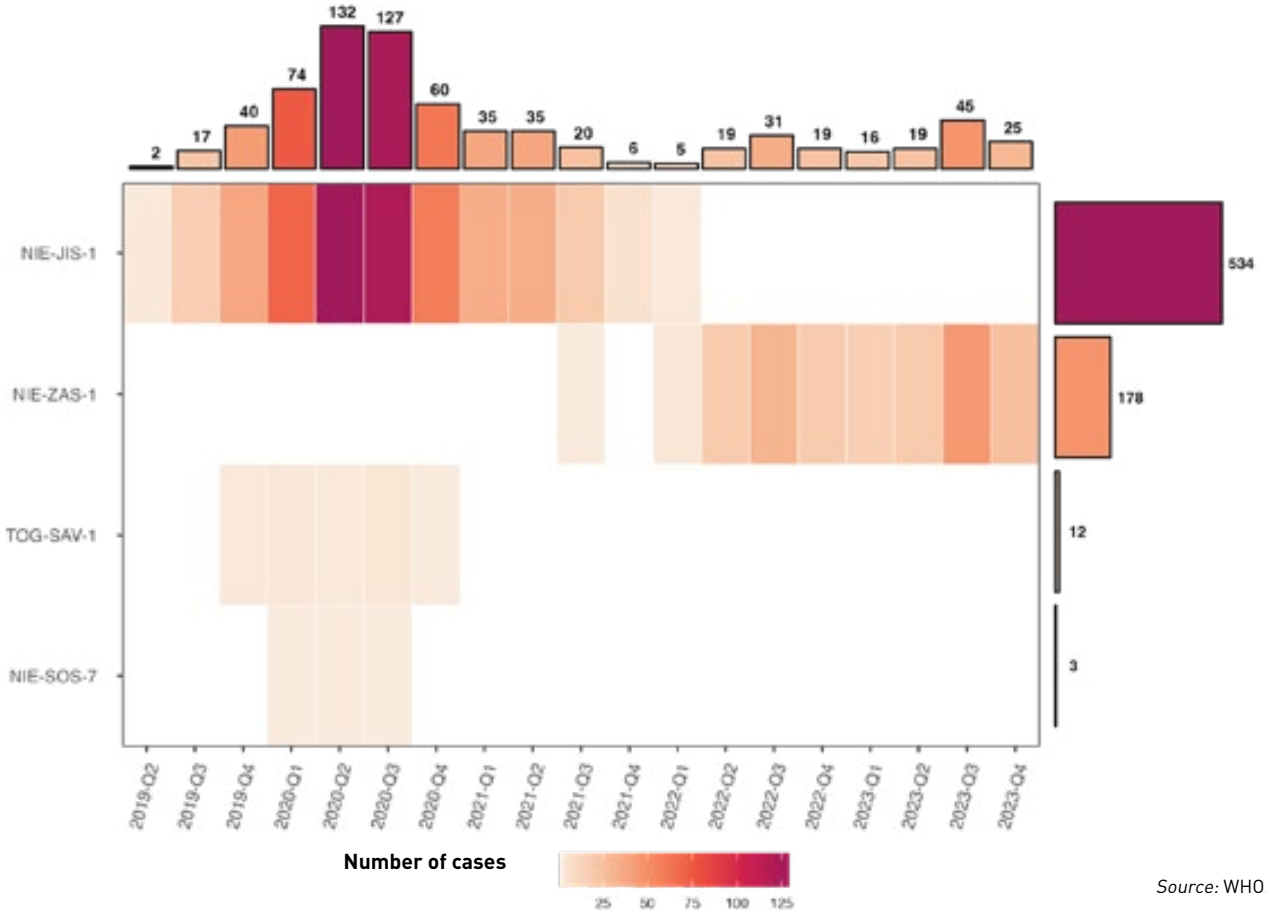
1. Leverage national and subnational political advocacy in the Democratic Republic of the Congo to ensure a conducive environment after the December 2023 elections. Plan for high-level advocacy in 2024.
2. Implement a minimum of five SIAs over 12 months in the Democratic Republic of the Congo, including at least one nationwide bOPV SIA and one nationwide SIA with nOPV2; tailor SNIDs to specific age groups and geographies based on epidemiological evidence.
3. Invest in the improvement of microplanning and population mapping in the eastern part of the Democratic Republic of the Congo and along the major rivers.
4. Conduct technical support visits to Angola, Equatorial Guinea and Gabon, followed by substantial investment in surveillance strengthening.
5. Conduct a comprehensive review of cold chain and reverse cold chain with special focus on the eastern part of the Democratic Republic of the Congo.
6. Conduct OBRAs in Burundi, the Democratic Republic of the Congo and Rwanda to review performance and assess needs.

3.3 West Africa

The West Africa epidemiological zone consists of 14 countries: Algeria, Benin, Burkina Faso, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Senegal, Sierra Leone and Togo. In addition to resource constraints shared across the programme, the zone faces challenges due to insecurity across the Sahel Belt, complex population movement patterns, vaccine hesitancy and poor response strategies that have hampered success in stopping outbreaks.

Over the last five years, West Africa has suffered from multiple waves of poliovirus type 2 outbreaks. The initial wave of transmission occurred between 2018 and 2022 and was linked to one emergence group (NIE-JIS-1) first detected in Jigawa, Nigeria. The second wave – also linked to a single emergence group (NI-ZAS-1) from Nigeria – has been spreading westward since 2021 and has now infected almost all countries in the epidemiological zone (**Fig. C4**).

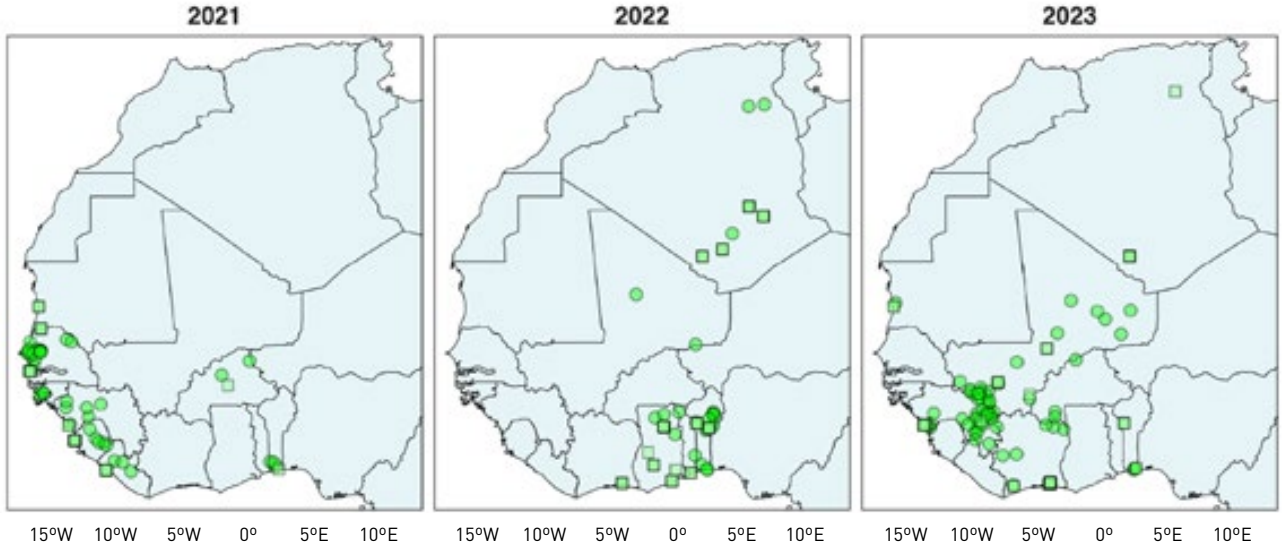
Fig. C3. Distribution of poliovirus type 2 by emergence group, 2019-2023



Source: WHO.

In 2023, 75 cases and 111 environmental isolates were reported from eight countries. In 2024, an additional two countries (Liberia and Sierra Leone) reported viruses (**Fig C4**).

Fig. C4. Distribution of poliovirus type 2 in West Africa, 2021–2023



Key: ● – *cases;* ■ – *environmental surveillance detections.*

Source: WHO.

Despite the implementation of 15 campaigns in five countries in 2023, the lack of adequate resources meant that SIAs were almost always initiated with delays and only after transmission was confirmed within the boundaries of the affected countries. Furthermore, a nine-country response plan developed for August 2023 could only be partially implemented owing to resource constraints. Benin stopped vaccination campaigns against polio while continuing to report cases of poliovirus.
In 2024, vaccine and funding challenges will likely persist and affect the capacity to implement a proactive response strategy. Considering the rapidly decreasing type 2 population immunity across multiple countries, continued spread of poliovirus type 2 is expected in 2024.

Priorities for 2024-2025

1. Increase political advocacy with the governments of Benin, Burkina Faso and Mali to ensure full commitment to interrupt poliovirus type 2 transmission in 2024.
2. Establish a framework for closer coordination between Burkina Faso and Mali with Niger and the greater Lake Chad Basin, given challenges emerging across the tri-national border areas.
3. Enhance CBS across the Sahel Belt, especially in conflict areas.
4. Conduct OBRAs in at least three countries in West Africa before the end of 2024.
5. Conduct subregional joint planning workshops and adapt participation based on evolving epidemiology.
6. Implement at least two nOPV2 rounds in all countries with active outbreaks; considering the challenging resource environment, a more robust response is unlikely in 2024.
7. Conduct technical field support to countries (Liberia and Sierra Leone) for surveillance strengthening.

3.4 East and Southern Africa

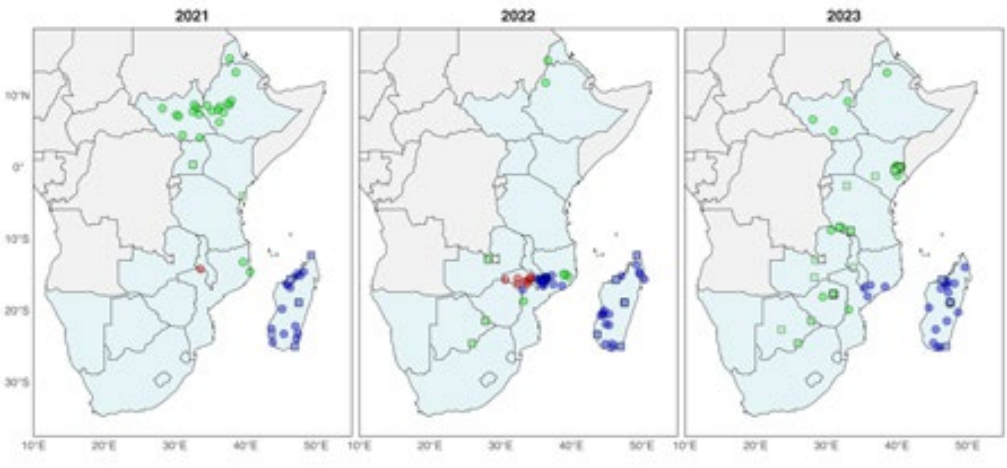
East and Southern Africa includes three epidemiological zones:

- The Horn of Africa;
- Southern Africa; and
- Madagascar and other island countries.

Climatic events have posed public health challenges across these zones. Major tropical storms in the southern Indian Ocean resulted in disease outbreaks in Madagascar, Mozambique, Malawi, Zambia and Zimbabwe. Floods in the Horn of Africa resulted in delays in response. Moreover, a shortage of vaccine carriers was a recurrent challenge because of the implementation of wider age-group response.

Countries across these zones have had recent outbreaks of both poliovirus type 1 and 2 (**Fig. C5**) Major progress was made in 2023 to stop WPV1 transmission in Mozambique and Malawi, to stop circulating variant poliovirus type 1 transmission in Mozambique, Malawi and Madagascar and to prevent the spread of poliovirus type 1 across the subregion. Multiple bOPV SIAs were effective in decreasing the geographical spread of the virus. OBRAs conducted in Mozambique, Malawi, Zambia and Tanzania highlighted progress in increasing population immunity and identifying substantial gaps in surveillance to strengthen detection. The subregion is in a good position to end poliovirus type 1 circulation by December 2024.

Fig. C5. Distribution of poliovirus type 1 and type 2 in East and South Africa, 2021–2023



Key: ● *– cases;* ■ *– environmental surveillance detections.* *Source:* WHO.

Madagascar, which has been facing type 1 transmission for over five years, implemented four nationwide response rounds in 2023 with a substantial improvement in the quality of the SIAs. The risk of continued transmission into 2024, however, remains very high given the persistence of polio in-country and the large presence of populations that are hard to reach.

Type 2 outbreaks have unfortunately expanded across these zones owing to inadequate vaccine supply and funding, resulting in limited response. Transmission spread from type 2 endemic areas in Southern Somalia to Kenya, and from the Democratic Republic of the Congo and Burundi into Tanzania, Zambia, Botswana, Malawi and South Sudan. New emergences were also identified in Zimbabwe and Botswana.

Considering declining type 2 population immunity, high population movement between countries and the continued constraints on resources (funding and vaccines), type 2 transmission is likely to spread further in East and Southern Africa. All countries within the subregions remain at high risk.

Priorities for 2024-2025

1. Review surveillance performance in Malawi and Mozambique and determine whether poliovirus type 1 transmission persists; for each country, the WHO Regional Office for Africa to determine whether thresholds for the formal closure of the outbreaks have been reached.
2. Implement at least two bOPV nationwide immunization rounds before July 2024 in Madagascar.
3. Recruit and develop local capacity to ensure sustainable technical support in Madagascar.
4. Conduct an in-depth assessment of SIA data for Madagascar and identify unreached populations.
5. Conduct OBRAs in Madagascar, Zimbabwe, Zambia and Botswana before the end of 2024.
6. Enhance coordination across the Horn of Africa and ensure joint response planning and synchronization of response.
7. Implement at least two nOPV2 rounds in all countries with active outbreaks; considering the challenging resource environment, response is likely to remain focal and a more robust response is unlikely in 2024.
8. Enhance preparedness in South Africa and Namibia.
9. Conduct field technical support to countries for surveillance strengthening.

Annex D. Consequential geographies

Table D1. Consequential geographies in the African Region (as of December 2023)

Country	Core reservoirs	High-risk subnational areas
Algeria	Tamanghasset	NA
Cameroon	NA	Far North, North
Central African Republic	NA	Regions Sanitaires [health zones] (RS): RS3, RS4, RS6, RS7
Chad	Logone Oriental	Lac, Logone Occidental, Mandoul, Mayo-Kebbi Est, Mayo-Kebbi Ouest, Mayo-Kebbi Ouest, N'Djamena, Ouaddaï, Tandjilé
Côte d'Ivoire	Abidjan	Abidjan
Democratic Republic of the Congo	Haut-Katanga, Haut-Lomami, Tanganyika, Tshopo	Kasaï, Kasaï-Central, Kasaï-Oriental, Kinshasa, Lomami, Lualaba, Maniema, Nord-Kivu, Sud-Kivu
Ethiopia	NA	Somali
Kenya	NA	Garissa, Mandera, Wajir
Madagascar	Analamanga	Anosy, Boeni, Sud-Ouest
Mali	NA	Gao, Kidal
Mozambique	NA	Cabo Delgado, Nampula, Niassa, Tete, Zambezia
Niger	NA	Agadez, Dosso, Maradi, Niamey, Tahoua, Tillabéri
Nigeria	Katsina, Kebbi, Sokoto, Zamfara	Kaduna, Kano, Lagos, Niger

Annex E. Terms of reference for the Regional outbreak response group

5.1 Purpose

The RORG is a multi-partner team supporting polio eradication efforts across the African Region of WHO. It is a GPEI group that brings together various partner agencies supporting the response efforts under one platform and ensures timely detection, resource availability and response to polio outbreaks in the Region.

The RORG's core objective is to support outbreak countries in their response to close outbreaks as effectively and as efficiently as possible.

The team serves as the main point of contact between regional polio eradication programmes and the broader GPEI structure(s) to facilitate rapid response and to help ensure all that countries in the African Region are prepared to effectively respond to potential polio events. This also helps to ensure the sustainability of eradication efforts.

5. 2 Responsibilities

The RORG responsibilities are articulated around three focus areas:

1. Outbreak response, including vaccination campaigns in line with regional response plans, under the leadership of a dedicated rapid response team (RRT);
2. Outbreak prevention and preparedness; and
3. Coordination of stakeholders and partners.

5.2.1 Outbreak response under the leadership and direct coordination of a rapid response team

The RORG shall include a dedicated RRT under a RRT Coordinator. The RRT will provide technical support and assist countries to rapidly and efficiently respond to stop outbreaks. Under the leadership of the RRT Coordinator, the RRT shall:

- Help conduct case investigation and organize necessary calls as soon as outbreak is confirmed;
- Deploy, provide technical guidance to and monitor the initial response teams, as well as the surge support providing longer term on-the-ground support;
- Assign and deploy a GPEI coordinator in coordination with country and regional leadership of the World Health Organization and the United Nations Children's Fund (UNICEF);
- Advise outbreak countries in their response and work with Ministry of Health and in-country GPEI teams to establish emergency operations centres and develop a national outbreak response plan, including a budget, chronogram of activities and human resources surge plan, periodically adjusting and adapting the plan as needed;
- Lead and guide the GPEI coordinator and surge teams on outbreak response strategies; provide technical guidance, expertise and oversight in all key thematic areas;
- Help track outbreak evolution and response progress (including technical support for the assessment of outbreak response; coordinate with country course correction as needed;
- Help coordinate with the expanded programme on immunization, primary health care and other programmes as needed, such as water, sanitation and hygiene, nutrition and child protection, to leverage opportunities for integration, help ensure sustainability and, importantly, be responsive to and aligned with needs communicated by the national government;
- Monitor the quality of supplementary immunization activities through IM and LQAS data to develop quality improvement plans;
- Help reassess the state of the outbreak response to determine when appropriate to close outbreak and reduce support; support efforts to ensure the smooth transition back to routine surveillance and immunization;
- Represent the GPEI in-country and liaise

between the GPEI partners at country and regional level, including civil society organizations; provide direct feedback to the global Outbreak Response Group (ORPG) about outbreak response progress, challenges and potential solutions;

- Help country teams compile regular updates of outbreak response activities (e.g. situation reports, bulletins, and newsletters) for distribution to relevant partners;
- Work with country teams to ensure timely flow and use of data related to outbreak response and preparedness; and
- Facilitate cross-border coordination between countries within the Region and in collaboration with the Eastern Mediterranean/Middle East North Africa incident management support team.

5.2.2 Outbreak prevention and preparedness under RORG leadership, leveraging GPEI agencies

The RORG is also responsible for making sure all countries within the African Region can detect polio events as quickly as possible and would be able to respond effectively and efficiently in case of detection. As senior stakeholders of their organization, they ensure the following activities are conducted:

Providing standardized guidelines, tools and training materials; ensuring that they are disseminated nationally in all countries;

- Ensuring that high-risk countries have updated and comprehensive outbreak response plans, tested where necessary through outbreak response simulation exercises, including training workshops;
- Monitoring surveillance performance and levels of preparedness and timely implementation of key activities through standardized trackers/dashboards;
- Ensuring that all countries have updated and comprehensive polio surveillance plans and help make sure that the plans are aligned with regional strategy and regional guidelines;
- Coordinating with global-level GPEI groups, in-country immunization teams and other stakeholders (e.g. Gavi, the Vaccine Alliance) on risk mitigation steps, including intensification of essential immunization and integrated preventive campaigns as needed;
- Strengthening regional response capacity through identification, operationalization and capacity-building of surge support; and
- Ensuring all requirements for novel oral polio vaccine type 2 use are met and maintained in all countries in the Region.

5.2.3 Stakeholders' coordination around outbreak response and outbreak prevention

The RORG leadership will serve as the main point of contact between regional polio programmes and broader GPEI structure(s). To do so, the RORG is leading the following activities:

- In close collaboration with relevant global-level GPEI groups, ensuring the development of an annual strategic plan;
- Organize and host biannual, in-depth, in-person programme strategy review Workshops that brings together three levels of the programme and provides wider stakeholder engagement;
- Undertake monthly risk assessment and response plans that dynamically adjust overall regional plans and consider emerging issues, including changes in epidemiology and resource availability; conduct campaign prioritization according to risk assessment;
- Strongly advocate at all levels of the GPEI and ensure consistent support for the regional polio eradication plans; and
- Coordinate all high-level political advocacy aimed at supporting the polio eradication effort in the Region.

5.2.4 Gender perspective

Gender mainstreaming (the process of assessing implications for women and men of any planned action in all areas and at all levels) is integral to the achievement of gender equality and equity, which is considered a powerful determinant of health outcomes and a major factor in the movement towards polio eradication. The RORG is responsible for supporting gender mainstreaming and the GPEI gender strategy within the group by:

- Dedicating time to develop and undertake activities to mainstream gender in the group, in conjunction with the gender

mainstreaming group (GMG) annually and ensuring completion of activities (such as training via webinars, coaching and/or mentoring);

- Leveraging technical support from the GMG, where feasible and applicable, throughout the course of activities (that is, throughout programme planning, design, implementation, monitoring and evaluation) to ensure that a gender equality lens is being applied;
- Being aware of key performance indicators of the GPEI gender equality strategy and implementing actions to help meet the expected results, leveraging support from the GMG where needed; and
- Monitoring and reporting on the proportion of RRT leadership positions (including response bloc and GPEI coordinators) held by women.

5.3 Composition and secretariat

5.3.1 RORG membership

The RORG leadership team shall consist of:

- The WHO Africa Regional Polio Eradication Programme Coordinator, who will also act as the Chair of the group;
- The UNICEF Regional Polio Coordinators for West and Central Africa Region and East and Southern Africa Region, who will also act as co-chairs of the group;
- The GPEI Regional Polio RRT Coordinator;
- Additional membership of not more than two people per agency from the Gates Foundation and the United States Centers for Disease Control and Prevention (CDC); and
- Additional membership, if desired, from other GPEI partners (Rotary, Gavi).
- Secretariat: WHO African Region shall provide secretariat support for the RORG.

5.3.2 The GPEI rapid response team

The RRT is a special regional team that brings together regional-level GPEI partners and is focused on ensuring the delivery of timely high-quality response at country level. The RRT will report to a dedicated RRT Coordinator. The RRT shall also have a dedicated secretariat that works closely with the subregional bloc coordinators and shall focus on supporting the countries. The RRT consists of:

- **RRT Coordinator,** responsible for overall coordination of GPEI support to countries responding to polio outbreaks within the Region. He or she will drive the day-to-day work of the RRT;
- A **Response Coordination Support team** comprised of:
    - **(Subregional) Bloc Coordinators** to oversee and support outbreak response activities in their geographical scope, through day-to-day work with all GPEI country coordinators within their scope. They help guide GPEI country coordinators to ensure efficient outbreak response and help coordinate with other RRT members to provide best quality support and efficient reporting on progress;
    - **GPEI country coordinators** are appointed within a few weeks of outbreak detection to support the country in its response (development of outbreak response plan, operational base budget and setting up of coordination mechanisms). They work with subregional bloc coordinators as well as other RRT functional roles to best support the country and help report on country progress; and 48
    - **Country surge team members** are deployed throughout the outbreak based on specific country needs to provide expertise and additional capacity on specific components of outbreak response. They coordinate with the GPEI country coordinators who are responsible for overall country support and response.
- A **technical support team** to facilitate vaccine management and social and behavioural change activities to ensure that countries receive adequate cold chain equipment and vaccine on time and that communication and social mobilization activities are duly implemented to improve the demand for vaccine; and

- A **programme support team** to assist with data and finance activities.

Other members of the RORG group will be drawn from the existing World Health Organization and UNICEF structures, supplemented by additional specific members from thematic area to fill critical needs. Partner agencies will also provide technical support to Africa RORG as needed. As an example, the WHO Regional Office for Africa shall provide technical support for surveillance and risk assessment.

Annex F. Acute flaccid paralysis surveillance

Table F1. Key performance indicators for acute flaccid paralysis surveillance, April 2023–March 2024

Country	NPAFP rate	Districts ≥100 000 U15 with NPAFP ≥2 (%)	Stool adequacy with missing = good (%)	Timeliness of notification* (%)	Timeliness of stool shipment with missing = good **(%)	Timeliness of field and shipment with missing = good*** (%)
Algeria	3.3	85	89.1	65.5	47.3	71.9
Angola	2.7	52.3	83.6	70	1.3	7.9
Benin	5.3	90.9	89.3	80.2	1.8	48.5
Botswana	2.4	0	76	52	0	0
Burkina Faso	10.6	90	94.2	81.8	1	44.3
Burundi	2.8	51.4	81.3	66.3	2.6	28
Cabo Verde	-	-	-	0	0	0
Cameroon	6.9	80.6	88.4	77.6	51.8	83.6
Central African Republic	6.9	100	80.7	72	64.3	72
Chad	15.2	96.3	86.6	72	0	17.8
Comoros	1.9	0	83.3	83.3	0	0
Republic of Congo	9	100	96.6	91.9	25.1	85.5
Côte d'Ivoire	8.2	95.9	73.5	87.2	31.7	67.4
Democratic Republic of the Congo	8.2	86.9	82.9	65.7	6.2	28.4
Equatorial Guinea	5.6	100	85	87.5	0	2.5
Eritrea	2.2	-	88.3	74	0	0
Eswatini	1.4	50	77.8	66.7	33.3	77.8
Ethiopia	2.8	66.3	94.6	64.4	91.9	91.4
Gabon	5.7	0	90.6	81.1	1.9	35.8
Gambia	2.4	-	94.1	85.3	5.9	32.4
Ghana	6	71.4	84.1	77.2	45.8	64.9
Guinea	9.2	100	84	75.1	7.3	55.7
Guinea-Bissau	2.1	-	67.9	71.4	67.9	60.7
Kenya	3.4	51.6	90.8	76.4	77.1	86.5
Lesotho	2.3	0	100	100	26.3	57.9

Table F1. cont'd...

Liberia	3	-	94.2	79.7	0	14.5
Madagascar	10.4	100	93.9	82	25.5	74.7
Malawi	5.5	96	91.2	74.7	35.6	47
Mali	8.4	97.6	94	85.4	0.2	38
Mauritania	3.1	-	69.2	66.7	1.3	29.5
Mauritius	3.4	-	100	100	14.3	85.7
Mozambique	4.5	82	84	60.7	17.8	43.9
Namibia	2.8	100	82.5	67.5	0	47.5
Niger	5.6	93.8	77.8	55.9	0.3	26.4
Nigeria	13.3	99.5	97.6	86	81.1	94.6
Rwanda	5.1	96.7	98.7	77.1	14	71.3
Sao Tome and Principe	-	-	-	0	0	0
Senegal	3.4	66.7	85.3	77.5	67.8	81.4
Seychelles	-	-	-	0	0	0
Sierra Leone	4.9	93.8	94.9	82.5	0	5.1
South Africa	2.5	46.7	80.8	87.7	8.2	11.7
South Sudan	9.6	92.3	95.5	89.9	0	15.6
Togo	7.3	58.3	86.5	76	3.6	42.9
Uganda	4.7	82.4	87.7	73.3	65.5	81.3
Tanzania	5.1	92.4	96.7	94.2	0.9	67.6
Western Sahara	-	-	-	0	0	0
Zambia	7.5	93.3	82.9	58.2	68.4	74.6
Zimbabwe	4.9	90.9	89.2	76.1	59.9	80.7

* # of AFP cases reported ⩽ 7 days of onset / # AFP cases reported

** # of stool specimens that arrive in good condition at a WHO-accredited lab AND ⩽ 3 days of specimen collection / # stool specimens collected

*** # of AFP cases with two stool specimens collected ⩾ 24 hours apart AND received in good condition at a WHO-accredited lab AND ⩽14 days of onset / # AFP cases reported

NP AFP = non-polio acute flaccid paralysis.

Data current as of 9 May 2024.

Annex G. Enviromantal surveillance

Table G1. Key performance indicators for environmental surveillance, April 2023–March 2024

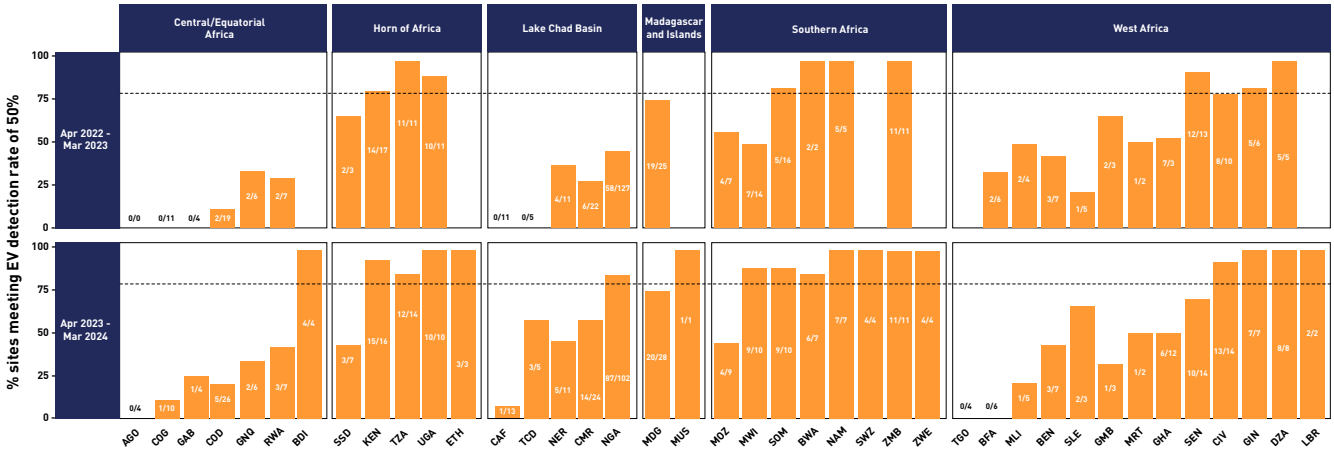
Country	ES sites at least one collection	Active ES sites (≥10 samples)	Active ES sites with ≥50% EV detection (%)	Active ES sites with ≥80% EV detection (%)	Active ES sites with ≥80% samples good condition (%)
Algeria	13	8	100	100	87.5
Angola	23	4	0	0	100
Benin	7	7	42.9	0	100
Botswana	8	7	85.7	28.6	100
Burkina Faso	6	6	0	0	100
Burundi	5	4	100	50	0
Cabo Verde	-	-	-	-	-
Cameroon	24	24	58.3	29.2	100
Central African Republic	16	13	7.7	0	100
Chad	6	5	60	0	100
Comoros	-	-	-	-	-
Republic of Congo	10	10	10	0	100
Côte d'Ivoire	20	14	92.9	57.1	57.1
Democratic Republic of the Congo	26	26	19.2	0	100
Equatorial Guinea	6	6	33.3	0	100
Eritrea	-	-	-	-	-
Eswatini	4	4	100	0	100
Ethiopia	5	3	100	33.3	100
Gabon	5	4	25	0	100
Gambia	3	3	33.3	0	100
Ghana	13	12	50	0	100
Guinea	7	7	100	28.6	100
Guinea-Bissau	-	-	-	-	-
Kenya	22	16	93.8	6.2	100
Lesotho	-	-	-	-	-
Liberia	2	2	100	0	100

Table G1. cont'd...

Madagascar	28	28	71.4	57.1	100
Malawi	10	10	90	60	100
Mali	6	5	20	0	100
Mauritania	2	2	50	0	100
Mauritius	3	1	100	0	100
Mozambique	11	9	44.4	0	100
Namibia	7	7	100	42.9	100
Niger	11	11	45.5	0	100
Nigeria	134	102	85.3	14.7	100
Rwanda	7	7	42.9	28.6	71.4
Sao Tome and Principe	-	-	-	-	-
Senegal	15	14	71.4	14.3	100
Seychelles	2	-	-	-	-
Sierra Leone	6	3	66.7	0	100
South Africa	26	10	90	30	100
South Sudan	7	7	42.9	0	0
Togo	4	4	0	0	100
Uganda	11	10	100	80	100
Tanzania	16	14	85.7	71.4	7.1
Western Sahara	-	-	-	-	-
Zambia	16	11	100	63.6	100
Zimbabwe	4	4	100	100	100

Data current as of 9 May 2024.

Fig. G1: Percentage of environmental surveillance sites by country meeting sensitivity threshold of at least 50% samples positive for EV (target ≥80% of sites), April 2023–March 2024



Note: only sites with 10 samples or more in a 12-month period are included in the analysis. ES = environmental surveillance; EV = enterovirus.

Source: WHO. Data current as of 8 May 2024.

Table G2. Summary of environmental surveillance site review by country

Country	Mission dates	Type of mission	No. of site prior to mission	No. of new sites opened	No. of sites recommended for closure	No. of effectively closed sites	No. of Functional sites today
Angola	18 Sep–14 Oct 2023	Review	9	11	6	6	14
Botswana	25 Jul–12 Aug 2022	Initiation	0	7	0	0	7
Benin	21 Nov–2 Dec 2022	Review	7	0	0	0	7
Burundi	21 Nov–2 Dec 2022	Review	4	1	0	0	5
Cameroon	15–26 Aug 2022	Review	22	2	0	1	23
Central African Republic	3–20 Oct 2022	Review	15	1	3	3	13
Chad	25 Jul–9 Aug 2022	Review	5	1	1	1	5
Comoros	16–27 Oct 2023	Initiation	0	4	0	0	4
Democratic Republic of the Congo	12–30 Sep 2022	Review	19	1	1	1	19

Table G2. cont'd...

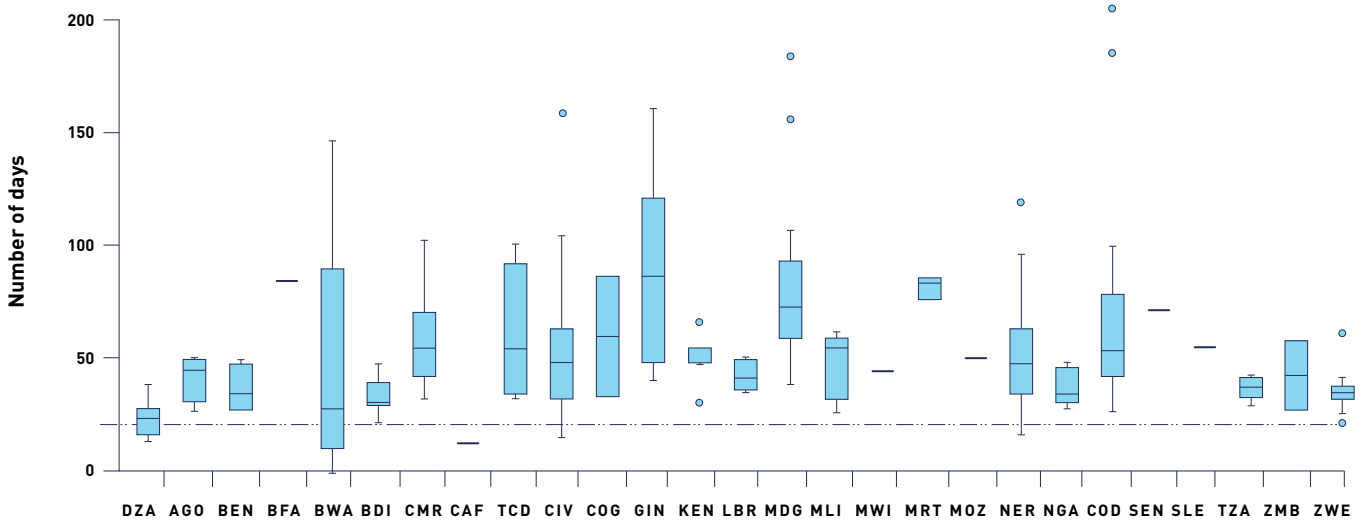
Democratic Republic of the Congo	11 Sep–3 Oct 2023	Review	19	6	0	0	25
Equatorial Guinea	27 Jun–8 Jul 2022	Review	6	1	1	0	6
Eswatini	12–25 Mar 2023	Initiation	0	4	0	0	4
Ethiopia	3–14 Oct 2022	Review	3	4	0	0	7
Gabon	29 Aug–16 Sep 2022	Review	6	1	2	2	5
Ghana	21 Nov–2 Dec 2022	Review	14	0	1	1	13
Guinea	21 Jul–5 Aug 2022	Review	5	3	3	2	5
Guinea-Bissau	20 Jun – 4 Jul 2022	Review	6	2	3	3	5
Liberia	28 Nov–9 Dec 2022	Review	4	0	2	2	2
Mali	12–25 Mar 2023	Review	4	2	0	0	6
Mauritius	7–20 Aug 2023	Initiation	0	4	0	0	4
Mozambique	11 Aug–2 Sep 2022		6	8	5	5	9
Namibia	9–23 Oct 2023	Review	7	0	0	0	7
Niger Rep	24 Oct –04 Nov 2022	Review	10	1	0	0	11
Nigeria	24 Nov –4 Dec 2023	Review	134	0	32	32	102
Republic of Congo	18–29 Jul 2022	Review	11	0	3	2	8
Rwanda	26 Sep–14 Oct 2022	Initiation	0	7	0	0	7
Senegal	11–23 Jul 2022	Review	6	8	0	0	14
Seychelles	15–30 May 2023	Initiation	0	2	0	0	2
South Africa	4–8 Dec 2023	Review	15	5	0	0	21

Table G2. cont'd...

South Sudan	19 Aug–9 Sep 2022	Review	4	3	1	1	6
Tanzania	5–16 Sep 2022	Review	8	2	0	0	10
Togo	17–28 Oct 2022	Review	3	1	0	0	4
Zambia	7–23 Aug 2023	Review	11	2	0	0	11
Zimbabwe	12–14 Apr-23	Initiation	0	4	0	0	4
Total			**364**	**98**	**64**	**62**	**395**

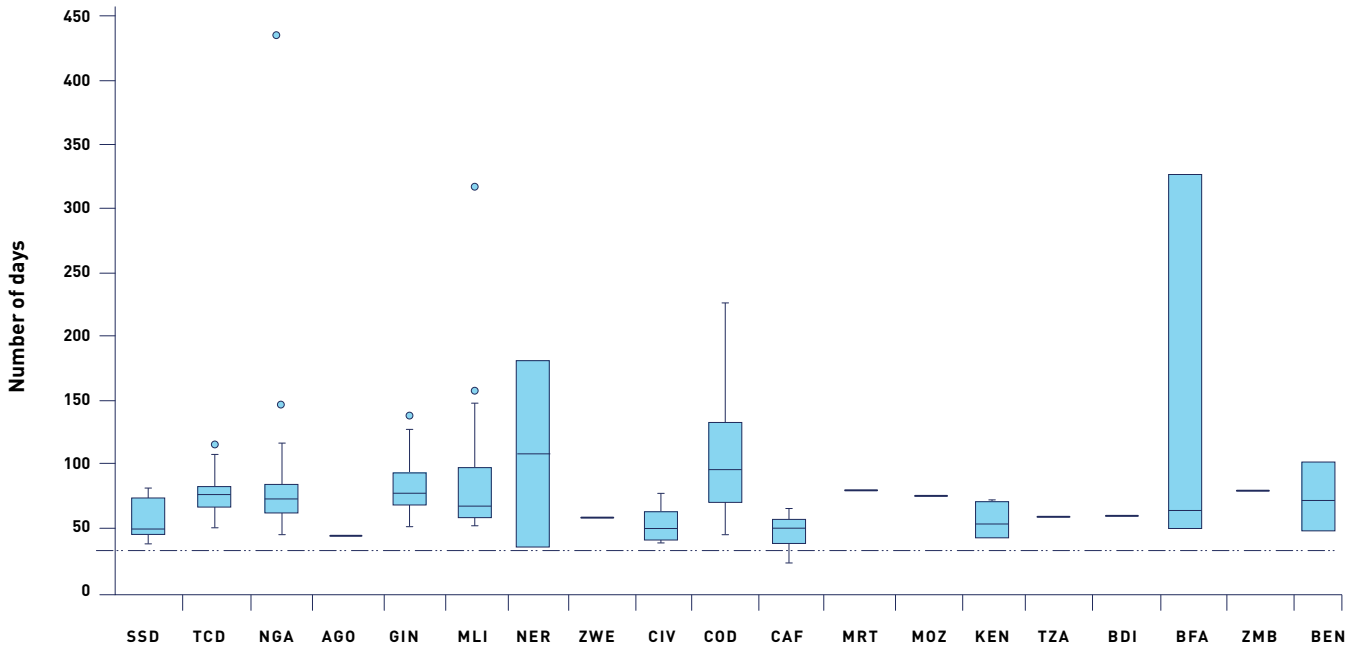
Annex H. Laboratory surveillance

Fig. H1. Timeline (in days) of results of AFP variant polio cases, 2023



DZA - Algeria
AGO - Angola
BEN - Benin
BFA - Burkina Faso
BWA - Botswana
BDI - Burundi
CMR - Cameroon
CAF - Central African Republic
TCD - Chad
COG - Congo
CIV - Côte d'Ivoire
COD - Democratic Republic of Congo
GIN - Guinea
KEN - Kenya
LBR - Liberia
MDG - Madagascar
MLI - Mali
MWI - Malawi
MRT - Maurintania
MOZ - Mozambique
NER - Niger
NGA - Nigeria
SEN - Senegal
SLE - Sierra Leone
TZA - Tanzania
ZMB - Zambia
ZWE - Zimbabwe

Fig. H2. Timeline (in days) of final results of ES variant poliovirus isolates, 2023



AGO - Angola
BEN - Benin
BFA - Burkina Faso
BDI - Burundi
CAF - Central African Republic
TCD - Chad
CIV - Côte d'Ivoire
COD - the Democratic Republic of Congo
GIN - Guinea
KEN - Kenya
MLI - Mali
MRT - Maurintania
MOZ - Mozambique
NER - Niger
NGA - Nigeria
SSD - South Sudan
TZA - Tanzania
ZMB - Zambia
ZWE - Zimbabwe

New laboratory methods aimed at reducing detection time

Sequencing

Table H1. Plan for expansion of Sanger and MinION nanopore sequencing

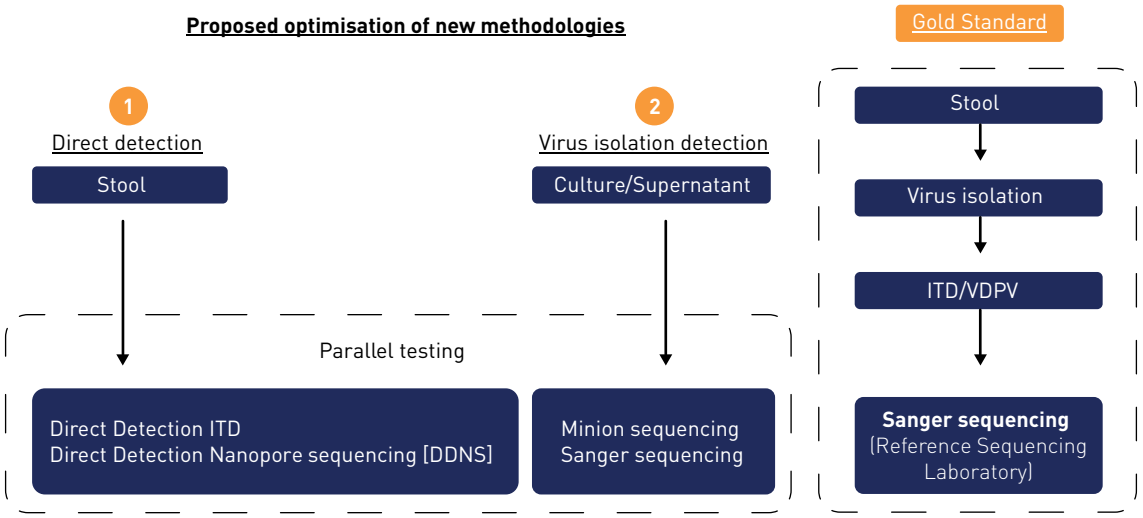
Country	Direct detection (intratypic differentiation)	Direct detection (nanopore sequencing)
Algeria	Trained, pilot Q1-2 2024, GSL visit July/Aug 2024, PT June 2024	Training Q2 2024, Pilot/GSL visit/PT Q 3 2024
Cameroon	Training planned Q2/3 2024, rest TBD	Trained, pilot Q1 2024, GSL visit Q2 2024, PT Q2 2024; SI Q3 2024
Central African Republic	NA	Training Q2 2024, pilot/GSL visit/PT Q 3 2024
Côte d'Ivoire	NA	Training and pilot Q4 2024, GSL visit and PT Q1 2025
Democratic Republic of the Congo	Trained, pilot Q1-2 2024, GSL visit July/Aug 2024, PT June 2024	Trained, pilot ongoing, GSL visit Q1 2024, PT Q1 2024
Ethiopia	Training planned Q2/3 2024, Pilot / GSL visit/PT Q4 2024	Training and pilot Q4 2024, GSL visit and PT Q1 2025
Ghana	Existing	Training and pilot Q4 2024, GSL visit, and PT Q1 2025
Kenya	Trained, pilot Q1-2 2024, GSL visit July/Aug 2024, PT May 2024	Trained, pilot ongoing, GSL visit Q2 2024, PT Q2 2024; SI Q2 2024
Madagascar	Trained, pilot Q1-2 2024, GSL visit July/Aug 2024, PT June 2024	Training Q2 2024, pilot/GSL visit Q3 2024, PT Q4 2024
Nigeria-Ibadan	Trained, pilot ongoing, GSL visit Dec 2023; PT Feb 24	Training and pilot Q4 2024, GSL visit, and PT Q1 2025
Nigeria-Maiduguri	Trained, pilot Q1-2 2024, GSL visit July/Aug 2024, PT June 2024	NA
Senegal	NA	Trained, pilot Q1 2024, GSL visit Q2 2024, PT Q2 2024; SI Q3 2024
South Africa	Existing	Training and pilot Q4 2024, GSL visit, and PT Q1 2025
Uganda	Trained, pilot ongoing, GSL visit Dec 2023; PT Feb 24	NA
Zambia	Training planned Q2/3 2024, Pilot / GSL visit/PT Q4 2024	Training Q2 2024, Pilot Q3, GSL visit/PT Q4 2024
Zimbabwe	Training planned Q2/3 2024, Pilot / GSL visit/PT Q4 2024	Training Q2 2024, Pilot/GSL visit/PT Q3 2024

GSL = global specialized laboratory; SI = sequencing implementation.

Direct detection

To address laboratory delays, the Region will introduce two novel methods aimed at reducing the turnaround time, known as direct detection. The first method involves ribonucleic acid extraction directly from stool samples, followed by intratypic differentiation (ITD) and sequencing, effectively bypassing the virus isolation/culture phase. This method is referred to as DD-ITD (direct detection intratypic differentiation). The second method entails ribonucleic acid extraction from stool samples and direct sequencing using nanopore technology, known as direct detection nanopore sequencing (DDNS). Implementation of these methods promises a substantial reduction in the overall treatment time (**Fig. H3**).

Fig. H3. Planned novel methods compared to the traditional viral isolation method



Rollout of direct detection is provided in **Table H2**. DDNS pilot testing will begin in Q1-Q2 2024 for those not already conducting pilot testing (PT), and Q2-4 for non-polio laboratories. DDNS target date for PT is Q2 2024 (Q1 for the Democratic Republic of the Congo); DD-ITD target date for PT is Q3 2024. Note: the plan is for all laboratories conducting pilot/parallel testing to switch to the automated Kingfisher Duo in January 2024, although some laboratories still need training.

Table H2. Training and parallel testing for direct detection

Country	Direct detection (intratypic differentiation)	Direct detection (nanopore sequencing)
Algeria	NA	Trained, pilot testing by end of Q2 2024, SI Q3 2024
Angola**	NA	Training planned Q1 2024
Cameroon	Trained, pilot DD in parallel to VI	Testing samples using DDNS
Central African Republic	Trained, pilot DD in parallel to VI	Trained, pilot testing by end of Q2 2024, SI Q3 2024
Côte d'Ivoire	Trained, pilot testing TBD	Trained, pilot testing by end of Q2 2024, SI Q3 2024
Democratic Republic of the Congo	Trained, pilot DD in parallel to VI	Pilot testing, SI Q4 2023

Table H2. cont'd...

Eritrea**	NA	Assessment planned Q1 2024, training Q1 2024
Ethiopia	Trained, pilot DD in parallel to VI	Training Nov 2023, SI Q4 2024
Ghana	Trained, pilot DD in parallel to VI	Training Nov 2023
Kenya	Trained, pilot DD in parallel to VI	Testing samples using DDNS
Madagascar	NA	Trained, pilot testing by end of Q2 2024, SI Q4 2024
Malawi**	NA	Assessment planned Q1 2024, Training Q1 2024
Mozambique**	NA	Training planned Q1 2024
Nigeria-Ibadan	Trained, pilot DD in parallel to VI	NA
Nigeria-Maiduguri	Trained, pilot DD in parallel to VI	NA
Rwanda**	NA	Training planned Q1 2024
Senegal	Trained, pilot testing TBD	Testing samples using DDNS
South Africa	Trained, pilot DD in parallel to VI	Training planned
Tanzania**	NA	Training planned Q1 2024
Uganda	Trained, pilot DD in parallel to VI	NA
Zambia	NA	Training Nov 2023, SI Q4 2024
Zimbabwe	NA	Training Nov 2023, SI Q4 2024

** Non-polio laboratories
DD = direct detection; DDNS = direct detection nanopore sequencing; VI = viral isolation; SI = sequencing implementation

The WHO Regional Office for Africa

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Member States

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Angola
Benin
Botswana
Burkina Faso
Burundi
Cabo Verde
Cameroon
Central African Republic
Chad
Comoros
Congo
Côte d'Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Eritrea
Eswatini
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
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