POLIO Environmental Surveillance Bulletin

Quarter 4 2025

World Health Organization
African Region

POLIO GLOBAL ERADICATION INITIATIVE

POLIOVIRUS ENVIRONMENTAL SURVEILLANCE RESILIENCE IN 2025

2025 was a significant year in the Global Polio Eradication Initiative's effort to eradicate the virus as it witnessed notable events like the extension of the GPEI strategy from 2026 to 2029 in the context of continued transmission of WPV1 in Afghanistan and Pakistan, as well as detection of variant polio viruses in four (Africa, Eastern Mediterranean, Western pacific and South East Asian) out of six WHO regions and in eighteen countries specifically in the African region, there was a general reduction in the number of viruses detected in the region compared to 2024 this was coupled with detection of several orphan viruses in the region especially in the lake Chad basin, continuous use of nOPV2 vaccines and impaction of the polio programme with unanticipated funding cuts occasioned by the withdrawal of US government funding.

This led to a reprioritisation of surveillance activities such as adjustment of frequency of sample collection from Environmental surveillance (ES) sites to once a month per site irrespective of outbreak status, investigation and closure of sites with zero Enteroviruses detected for more than a year and poor performing sites, deprioritisation of some planned capacity building activities and limited field missions due to lack of/inadequate operational funds for surveillance at the country level.

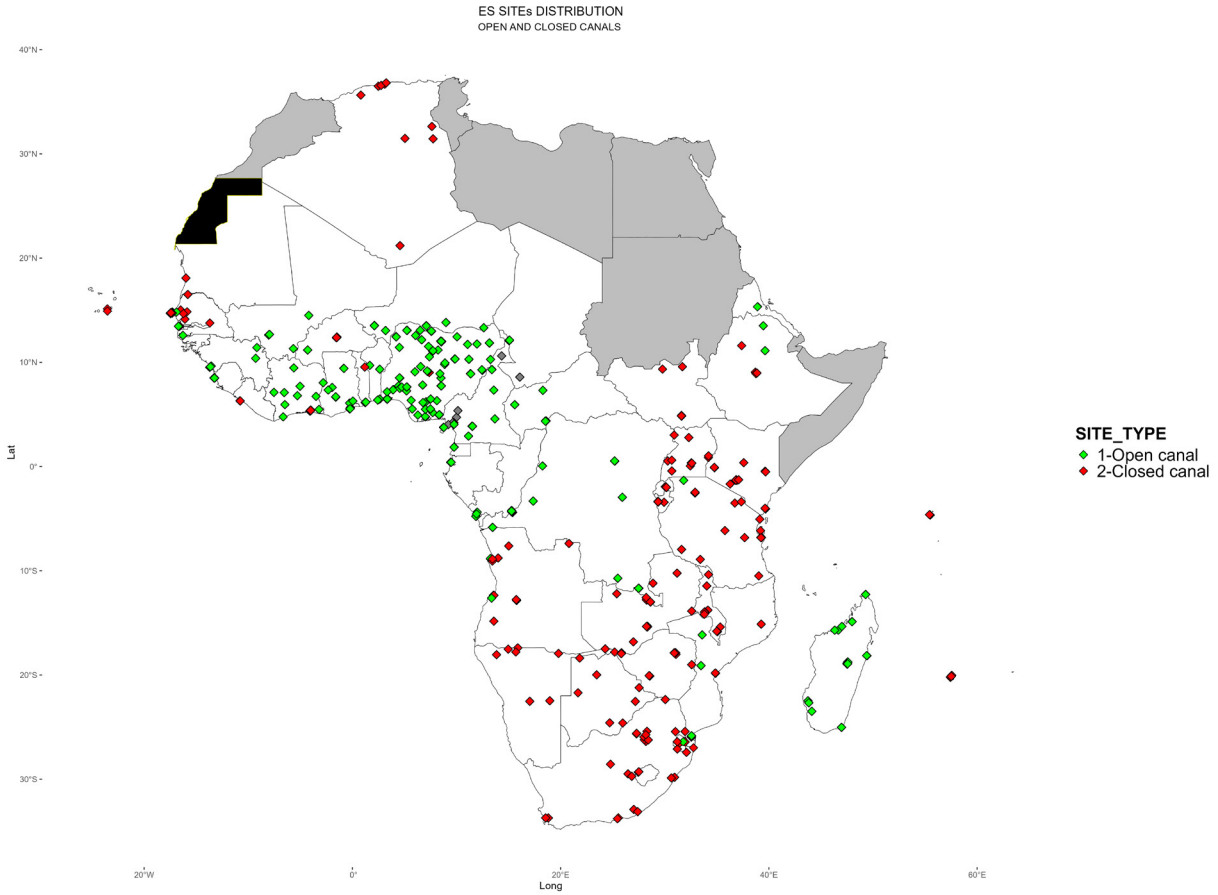
Despite these challenges, environmental surveillance remains an important component of poliovirus surveillance in the region, accounting for 56% of virus detections. In four countries, outbreak detections were only from environmental surveillance. In 2025, more than 500 polio environmental surveillance sites were in operation in the region, routinely collecting samples for polio testing.

This template also enables the collaboration of other programmes using the polio environmental surveillance structure to benefit Multi-pathogen detection, that were useful for pathogens like Mpox etc. the spread of these sites mostly in areas of high risk of poliovirus transmission and in big towns/cities that have heavy traffic of persons from different walks of life, gave a good population sample of transmission patterns in these populations and that of neighboring communities.

The optimisation of environmental surveillance continues with plans to deploy innovations, such as automatic samplers that can collect representative pooled wastewater samples over an extended period in ten pilot countries.

This is expected to improve performance in underperforming sites, and wider deployment will be dependent on the output of this pilot initiative.

Distribution of ES sites in the Region



ENVIRONMENTAL SURVEILLANCE OPTIMIZATION ACTIVITIES IN 2025

Throughout the year, which was a unique year with several unanticipated developments, efforts continue to optimise environmental surveillance in the region to ensure early detection of the virus, in line with the region's goal of ending the transmission of Polioviruses and ensure optimum site performance and adherence to global ES guidelines one of the key activities embarked upon was field review missions to nine countries (Benin, Democratic Republic of Congo, Equatorial Guinea, Gambia, Ghana, Madagascar, Mali, Mozambique and Republic of Congo) here countries were supported to assess overall ES quality in the country, site performance, investigate poor performing sites, institute corrective actions that can include closure of some sites, Monitoring of adherence to site collection and transportation Standard Operating Procedures (SOPs) and timelines and expansion of sites to cover high risk areas/population for poliovirus transmission.

The Polio Eradication Programme (PEP), WHO Africa Regional Office (AFRO), also supported Capacity building in high-risk countries through a refresher training session for ES focal points from government and supporting partner agencies. To this end, a training was organised for the focal points of the 16 high priority countries in Brazzaville, Republic of Congo that had in attendance government and WHO representatives from Angola, Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Mali, Mozambique, Nigeria, Niger and South Sudan.

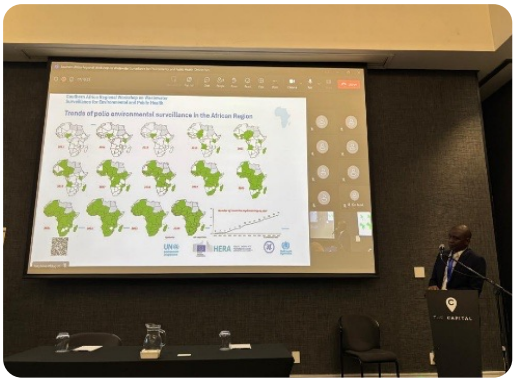
This training content covered the setup and management of sites, SOPs for sample collection and transportation, the use of eData tools, and integration with multipathogen programmes, including field practicals. In addition, AFRO also supported human resources strenghtening with the engagement of one national Consultant per country in ten priority countries (Angola, Burkina Faso, Nigeria, Niger, Cameroon, Guinea, Mali, Ethiopia, Kenya, Democratic Republic of Congo) and three Multi Country Assignment Teams MCAT (Gabon, Cote d'Ivoire and Ghana) Consultants, they supported countries in improving ES sites performance with expansion of sites, regular sample collection, investigation and closure of poor performing sites, supervision of ES activities and training of ES actors as well as additional support to the general Polio programme in their respective countries.

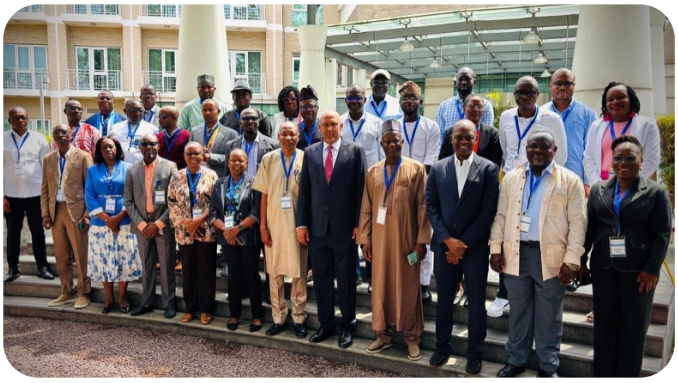
Support for integration of poliovirues environmental surveillance with other wastewater pathogens saw the region collaborate with partners in the Mpox wastewater surveillance project in Democratic Republic of Congo and the European Union Health Emergency Preparedness and Response Authority (HERA) wastewater project in AFRO that seeks to support Countries and development partners have clear guidance on minimum capacity need and investment requirements to establish and sustain a credible wastewater and environmental surveillance programme.

This resulted in four pilot countries (Democratic Republic of Congo, Senegal, Uganda, and Zambia) being supported in selecting priority pathogens based on local context and public health significance, feasibility, acceptability, and how best to integrate with existing surveillance and response systems, as well as multi-target wastewater and Environmental surveillance. Scoping visits were conducted in the four pilot countries where the WHO prioritisation tool was applied to help countries select priority pathogens. Microplanning was conducted for its implementation, after which budgets were drawn up, and implementation is planned for 2026.

The Polio programme also participated in the United Nations Environment Programme (UNEP) organised Southern and Eastern Africa Regional Workshops on Wastewater Surveillance for Environmental and Public Health in Johannesburg, South Africa, and Nairobi, Kenya, respectively, with experience shared on site selection & management and areas of collaboration explored with other programmes considering its vast network of sites across the region.


Presentation Outline
ILRI


Trends of polio environmental surveillance in the African Region



ENVIRONMENTAL SURVEILLANCE PERFORMANCE IN THE AFRICAN REGION, Q1 –Q4 2025

Key performance indicators for environmental surveillance, in accordance with global guidelines, are regularly monitored. Four of these indicators are highlighted in the table below. (I) The proportion of sites with an enterovirus isolation rate ≥ 50% was 75% in Q4 2025, up from 72% in Q3 2025. (II) 91% of countries have more than 80% of samples arriving at the laboratory in good condition. (III) However, 69% of countries had 80% of samples arriving at the laboratory within three or seven days of collection. (IV)Finally, 33% of countries have at least 80% of their collected samples supervised by ODK, falling short of the expected threshold of 80% of countries having 80% of their sample collections supervised using ODK.

S/N	Country	No of ES sites	No of samples received in the Lab	% of samples reaching the lab ≤3/ ≤7 days	% of samples reaching the lab in good condition	% of sites with ≥ 50% EV isolation	% of collections supervised with ODK
1	Algeria	10	130	94%	94%	100%	-
2	Angola	15	153	12%	100%	40%	62
3	Benin	7	90	82%	100%	57%	82
4	Botswana	8	73	93%	100%	75%	84
5	Burkina Faso	10	135	96%	100%	50%	95
6	Burundi	7	77	88%	100%	86%	44
7	Cabo Verde	2		-	-	-	-
8	Cameroon	17	246	95%	99%	100%	82
9	Central African Republic	6	68	94%	96%	50%	35
10	Chad	5	107	42%	100%	80%	73
11	Cote d'Ivoire	24	264	86%	76%	92%	58
12	Democratic Republic of Congo	22	251	68%	97%	18%	73
13	Equatorial Guinea	6	62	23%	100%	50%	68
14	Eritrea	2		-	-	-	-
15	Eswatini	4	35	94%	100%	100%	86
16	Ethiopia	8	78	100%	100%	100%	77
17	Gabon	4	44	91%	84%	50%	14
18	Gambia	3	42	79%	100%	100%	81
19	Ghana	14	181	97%	99%	86%	77
20	Guinea	9	90	100%	100%	100%	89
21	Guinea Bissau	6	36	67%	100%	17%	64
22	Kenya	24	271	96%	97%	75%	75
23	Lesotho	3		-	-	-	-
24	Liberia	2	28	79%	93%	100%	61
25	Madagascar	29	319	94%	100%	79%	33
26	Malawi	11	149	36%	92%	82%	82
27	Mali	7	70	86%	100%	71%	67
28	Mauritania	2	49	84%	100%	50%	82
29	Mauritius	3	18	100%	100%	100%	83
30	Mozambique	11	127	61%	100%	46%	74
31	Namibia	8	109	89%	100%	100%	64
32	Niger	16	238	82%	100%	56%	61
33	Nigeria	91	1156	100%	100%	95%	81
34	Republic of Congo	5	69	90%	100%	0%	38
35	Rwanda	4	20	100%	60%	75%	75
36	Senegal	7	77	100%	100%	100%	55
37	Seychelles	2	20	100%	100%	0%	-
38	Sierra Leone	5	63	29%	97%	80%	32
39	South Africa	23	222	87%	100%	56%	32
40	South Sudan	7	81	77%	41%	29%	9
41	Tanzania	19	154	90%	42%	84%	85
42	Togo	4	60	93%	98%	75%	80
43	Uganda	11	109	99%	95%	91%	-
44	Zambia	16	241	75%	99%	88%	56
45	Zimbabwe	9	93	60%	99%	100%	58
	Total African Region	508	4734	73/88%	95%	76%	64%

The WHO Regional Office for Africa

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Africa is one of the six regional offices throughout the world, each with its own programme geared to the particular health conditions of the Member States it serves.

Member States

Algeria
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
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
South Africa
South Sudan
Togo
Uganda
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Zambia
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