POLIO Environmental Surveillance Bulletin

Quarter 1 2025

World Health Organization
African Region

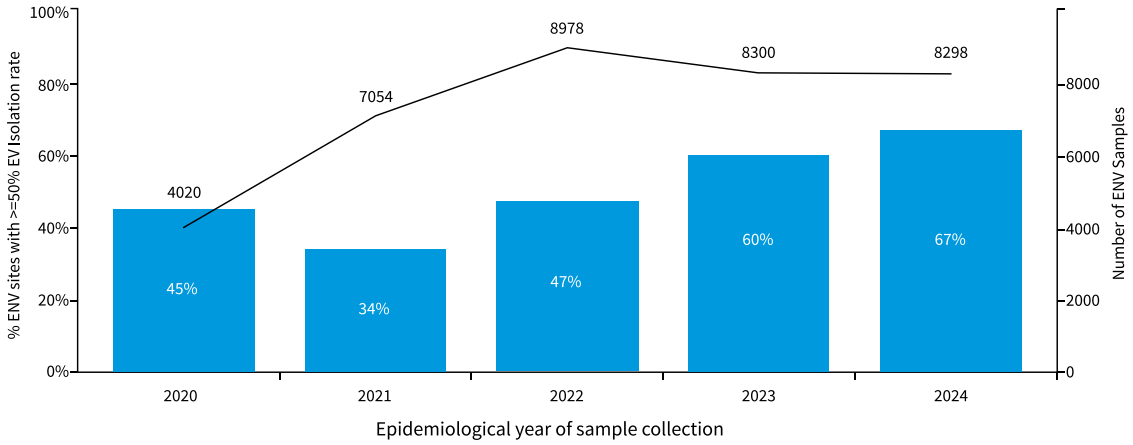
POLIO GLOBAL ERADICATION INITIATIVE

SUSTAINING ENVIRONMENTAL SURVEILLANCE IN THE AFRICAN REGION IN THE FACE OF SCARCE RESOURCES

Environmental surveillance (ES) has continued to complement the gold standard Acute Flaccid Paralysis (AFP) surveillance in the African region through detection of poliovirus transmission even in areas without human cases. Of recent, the World Health Organization (WHO) has witnessed a decline in the availability of resources to implement polio eradication activities including surveillance. The need to devise strategies for cost savings and improving efficiency is therefore paramount.

By its very nature, ES is a cost effective and efficient surveillance system. Additional cost saving strategies for ES that are being implemented include reduction in the frequency of sample collection to once per month per site, intensive monitoring of site performance to close underperforming sites, especially sites with zero enterovirus isolation after a period of 12 consecutive months of operation; provision of logistics support to countries with financial challenges to ensure continuity of sample collection and shipment; optimization of ES in high risk countries and expansion of footprint and capacity building of ES personnel for quality implementation of all ES activities.

In addition to the above strategies, efforts are ongoing to mobilize additional resources from donors; increased collaboration with other partners as well as advocacy to countries to enhance ownership. Environmental Surveillance is a sustainable surveillance system even in resource limited settings.



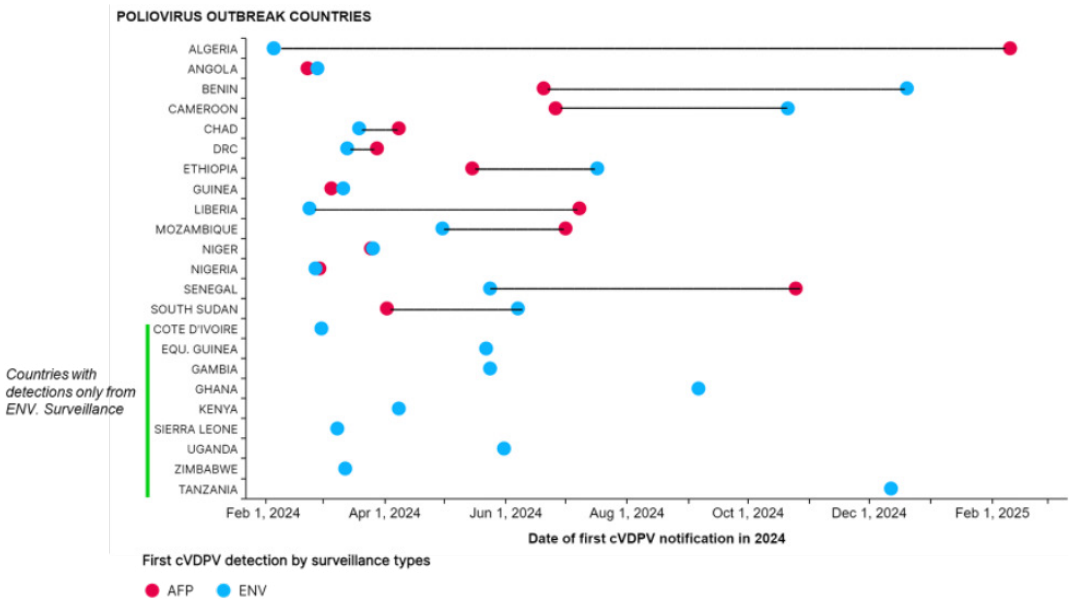
Trend of ES sample collection and sensitivity of sites in the African Region, 2020 – 2024

ENVIRONMENTAL SURVEILLANCE AS AN EARLY WARNING SIGNAL FOR POLIOVIRUS TRANSMISSION

The sensitivity of environmental surveillance in detecting poliovirus transmission is well documented. ES, when implemented in certain conditions and populations, especially with surveillance or immunization gaps and in high-risk populations, can detect the poliovirus even if one person sheds it within a 10,000 population.

This, coupled with the fact that asymptomatic secreters can also be captured and considering the very low paralysis-to-infection ratio, about 1:200, makes environmental surveillance an attractive prospect. Analysis of poliovirus detection in the African region showed that ES detections occurred first in 50% of outbreaks recorded in AFRO in 2024, this is in addition to 9 countries where detections were solely through ES, this demonstrated the value of ES in acting as an early warning system of the circulation of the poliovirus in the population and enabling public health authorities mount prompt responses in stopping the transmission of the virus.

This is essential in this phase of the eradication, where every single detection is vital to the overall eradication effort.



First cVDPV Detection in OBR countries, 2024

ENVIRONMENTAL SURVEILLANCE PERFORMANCE IN THE AFRICAN REGION, Q1 2025

Environmental surveillance key performance indicators according to global guidelines are monitored regularly. Four of the indicators are highlighted in the table below.

The proportion of sites with ≥ 50% enterovirus isolation rate was 61% in Q1, 2025, with 32% of countries having 80% or more of its sites achieving this target. 93% of countries have more than 80% of samples reaching the laboratory in good condition Finally, the number of countries with 80% of samples reaching the lab within three or seven days of collection improved from 47% to 71% (32/45) following the revision of the indicators according to the GPSAP 2025 - 2026, 53% (24/45) of countries have ≥ 80% of samples collected supervised with 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	9	30	93	93	89	-
2	Angola	10	15	0	100	70	100
3	Benin	7	21	95	100	71	100
4	Botswana	8	23	100	100	100	100
5	Burkina Faso	10	40	95	100	60	100
6	Burundi	7	21	67	100	86	67
7	Cabo Verde	2	2	100	100	50	-
8	Cameroon	17	87	100	99	82	95
9	Central African Republic	6	19	95	95	67	79
10	Chad	5	27	52	100	60	56
11	Cote d'Ivoire	24	52	87	100	88	65
12	Democratic Republic of Congo	26	98	60	94	8	100
13	Equatorial Guinea	8	22	32	100	38	55
14	Eritrea	2	-	-	-	-	-
15	Eswatini	5	9	89	100	80	100
16	Ethiopia	7	12	100	100	71	100
17	Gabon	4	8	100	63	75	-
18	Gambia	3	12	100	100	67	100
19	Ghana	14	44	100	98	71	91
20	Guinea	9	27	100	100	78	100
21	Guinea Bissau	6	12	50	100	67	67
22	Kenya	22	66	100	100	55	80
23	Lesotho	2	2	0	100	0	100
24	Liberia	2	8	75	100	100	38
25	Madagascar	28	84	89	100	71	31
26	Malawi	11	22	46	100	73	100
27	Mali	6	18	94	100	33	94
28	Mauritania	2	10	100	100	0	100
29	Mauritius	4	4	100	100	100	100
30	Mozambique	9	26	96	100	33	100
31	Namibia	8	32	100	100	100	81
32	Niger	16	82	86	100	13	78
33	Nigeria	95	316	100	100	44	92
34	Rwanda	6	16	100	38	50	69
35	Republic of Congo	5	25	100	100	0	63
36	Senegal	14	54	100	100	93	73
37	Seychelles	2	4	100	100	0	-
38	Sierra Leone	5	20	50	100	100	70
39	South Africa	23	43	95	100	44	56
40	South Sudan	7	33	49	33	57	15
41	Tanzania	16	49	100	53	94	96
42	Togo	4	23	100	100	75	91
43	Uganda	11	23	100	96	91	-
44	Zambia	17	37	100	100	94	100
45	Zimbabwe	9	1	0	100	-	100
	Total African Region	513	1577	76.8	96	61	85

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
United Republic of Tanzania
Zambia
Zimbabwe

World Health Organization
Regional Office for Africa
Cité du Djoué
PO Box 6, Brazzaville
Congo
Telephone: +(47 241) 39402
Fax: +(47 241) 39503
Email: afrgocom@who.int
Website: https://www.afro.who.int/