POLIO TRANSITION MONITORING REPORT (2018 – 2021)

Background

Polio transition aims to sustain, and, as appropriate, repurpose the network and infrastructure set up by the Global Polio Eradication Initiative (GPEI) in view of strengthening broader health priorities, especially essential immunization, disease detection, and emergency outbreak preparedness and response.

Polio transition efforts are guided by the Strategic Action Plan on Polio Transition 2019 – 2023 [1] presented at the seventy-first World Health Assembly (WHA) in May 2018 [2]. It has three strategic objectives: 1) sustaining a polio-free world, 2) strengthening immunization systems, including surveillance for vaccine-preventable diseases, and 3) strengthening emergency preparedness, detection, and response capacity in countries.

The strategic action plan includes a monitoring and evaluation (M&E) framework which provides regular reporting of progress on transition, through the WHO governance mechanisms. The M&E framework consists of a set of 13 output (Annex2) and 3 process indicators for which data are routinely collected and communicated through a dedicated interactive live tracking dashboard [3] to inform the progress and performance of the polio transition efforts in 20 priority countries (Table 1), in three WHO regions: the African Region (AFR), the Eastern Mediterranean Region (EMR), and the South-East Asia Region (SEAR).

Table 1: Polio Transition Priority Countries (2018 – 2023)

Africa	Eastern Mediterranean	South-East Asia
1. Angola	1. Afghanistan	1. Bangladesh
2. Cameroon	2. Iraq*	2. India
3. Chad	3. Libya*	3. Indonesia
4. DRC	4. Pakistan	4. Myanmar
5. Ethiopia	5. Sudan	5. Nepal
6. Nigeria	6. Somalia	
7. South-Sudan	7. Syria*	
	8. Yemen*	

*Targeted for country fragility factor

The 20 transition countries have held more of the burden of polio infection in recent years and collectively received approximately 90% of the polio investments. The countries were identified based on factors such as endemic poliovirus transmission, risk of potential poliovirus outbreaks, health system capacity, and country fragility.

[1] https://www.who.int/publications-detail-redirect/A71-9?Strategic+Action+Plan+Polio+Transition=
[2] https://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_9-en.pdf?ua=1
[3] https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard

Introduction

Since the start of the Strategic Action Plan on Polio Transition in 2018, progress has been made towards the sustainable transition of polio assets, despites challenges such as disruptions caused by COVID-19 pandemic and other health emergencies, and the wider political and economic situation and outbreaks of poliovirus in a number of polio transition priority countries. The key highlights on progress towards a sustainable polio transition include:

- Under the leadership of national governments, the majority of polio transition countries have developed national polio transition plans that set out strategies for integrating the key functions and infrastructure established by the GPEI into the national health system.
- AFRO developed a two-phased transition strategy to protect polio eradication progress and facilitate the transition efforts.
- EMRO introduced Integrated Public Health Teams as an interim step towards a sustainable transition.
- SEARO successfully implemented the key elements of its national transition plans.

The purpose of this report is to provide a high-level update on the progress and performance of polio transition in the priority countries during the period between 2018 and 2021. It presents analysis of four years of data (2018 – 2021) related to the 16 polio transition indicators, which give an overview of the progress of the Strategic Action Plan. It complements the Mid-term Evaluation of the Implementation of the Strategic Action Plan on Polio Transition published in 2022 by the World Health Organization (WHO) [4]and provides important insights into how the M&E framework may be revised [4].

The report aims to inform key stakeholders, particularly the national governments of the 20 transition countries, donor communities, and partner organizations at country, regional and global levels, on how far countries have progressed towards reaching the polio transition objectives and provides details of the progress made on each objective. It highlights some of the key issues that may impact the success of polio transition and limit the ability of the M&E to adequately provide regular reporting of progress on transition and thus identify those areas requiring programmatic and strategic interventions.

Considering its purposes, the report is categorised into three sections. The first section comprises the background and an introduction providing context to the report. The second section comprises the main body of the report, presenting an analysis of data related to the 16 indicators and discussing the progress made towards reaching the three strategic objectives of polio transition. The third and last section comprises conclusions drawn by the report and provides proposed recommendations and programmatic and strategic interventions to address the key issues highlighted.

Nonetheless, the reported limitations of the current polio transition framework (many of which are highlighted in the mid-term evaluation report)[5], coupled with the lack of data on some of the indicators, may limit the ability of this report to adequately inform how data may be used by countries to help priority setting and clearly inform what must be done to aid the least performing areas of the transition objectives.

[4] https://cdn.who.int/media/docs/default-source/evaluation-office/midterm-evaluation-of-implementation-of-sap-on-polio-transition-final-report.pdf?sfvrsn=82c7729b_1&download=true

[5] Among the limitations identified by the mid-term evaluation: lack of details in scope and dimensions; lack of logical coherence and clarity on cause-effect relationships between elements of the result-chain; inadequate target setting and lack of concrete milestones for output indicators; limited number of process indicators against which to assess progress; inadequate disaggregation of indicators by gender/equity; lack of differential target setting based on context and baseline indicators for the priority countries; lack of indicator on polio containment.

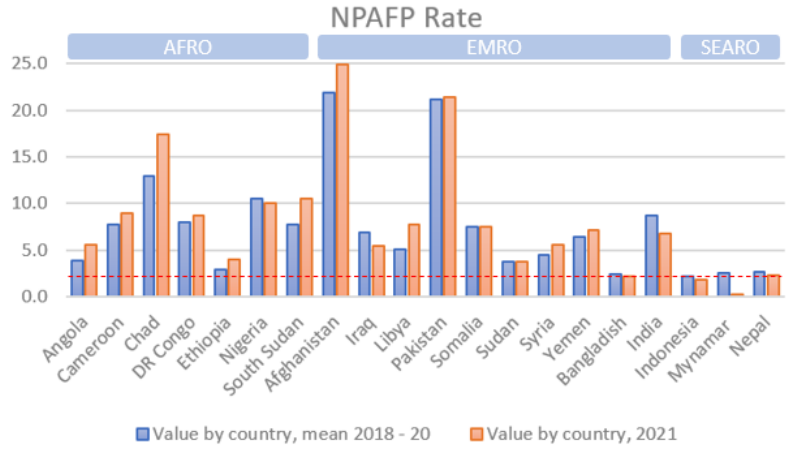
1. Reaching and sustaining a polio free world

The detection of one or more cases of nonpolio acute flaccid paralysis (AFP) per 100,000 children and adolescents aged <15 years per year is an indicator of an adequately sensitive polio surveillance system [6] in non-endemic countries (detection of two or more cases in endemic countries). This indicator is critical in the context of polio eradication to ensure the continuity of a sensitive surveillance system in the priority countries working towards reaching or sustaining a polio free status.

The majority of the priority countries reported an above target annual national non-polio AFP rate per 100,000 children and adolescents during the period between 2018 – 2021.

1.1. Polio surveillance including laboratories.

Figure 2: Non – Polio AFP Rate



Moreover, the stool adequacy rate (a measure of completeness of case investigation [Error! Bookmark not defined.]) for 2021 was ≥80% nationally for each of the polio transition countries, except for Iraq (70%).

These demonstrate not only that the transition countries are efficiently measuring progress towards strengthening surveillance systems, but also that they are performing quite well on this indicator – operating a highly sensitive polio surveillance system.

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Laboratory testing of sewage samples routinely collected at designated sites supplements AFP surveillance in facilitating timely detection of circulating polioviruses [7]. At the end of 2021, there were 465 environmental surveillance sites established across the polio transition countries, except for Libya and Iraq, where either data is unavailable, or there was no site established. The number of national surveillance sites ranges from above 155 (Nigeria) to below 5 (Yemen). The two endemic countries, Pakistan and Afghanistan, had 76 and 20 sites respectively in 2021.

Between 2018 and 2021, a total of 101 outbreaks were detected across the transition priority countries and in 2021, 18 active circulations in 9 priority countries (including the endemic circulation in Pakistan and Afghanistan) were tracked through the year.

In 2018, there were fewer outbreaks of poliovirus, compared to 2021. Eleven active outbreaks involving 6 countries

Table2: Active poliovirus circulations in year 2021

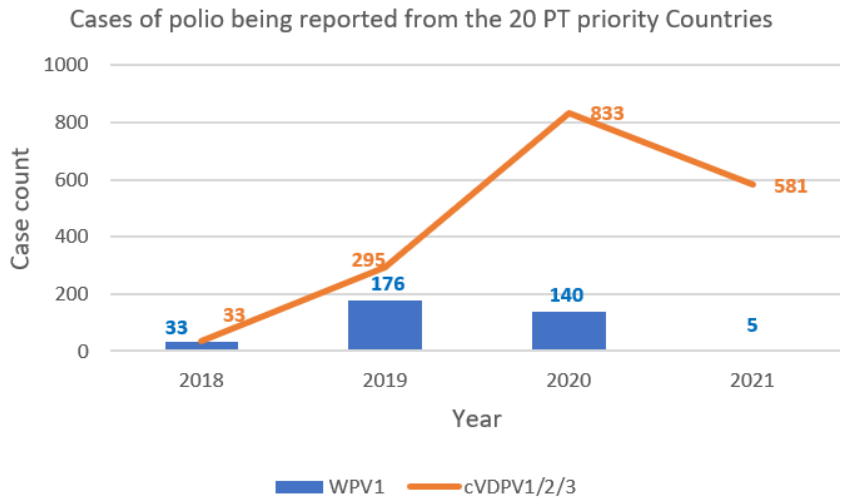
Region	Country	Active outbreak	Type of virus
AFRO	Cameroon	1	cVDPV2
	Chad	1	cVDPV2
	DR Congo	4	cVDPV2
	Ethiopia	3	cVDPV2
	Nigeria	4	cVDPV2
EMRO	Afghanistan	1	WPV1

[6] http://polioeradication.org/wp-content/uploads/2023/03/Global-AFP-guidelines-pre-publiucation-version-2023.pdf
[7] http://polioeradication.org/wp-content/uploads/2022/11/Field-Guidance-for-the-Implementation-of-ES-20221118-ENG.pdf

including the 2 endemic countries were reported during the year. The four nonendemic countries with active cVDPV outbreaks in 2018 were DR Congo, Indonesia, Nigeria, and Somalia.

	Pakistan	1	WPV1
	Somalia	1	cVDPV2
	Yemen	2	cVDPV2 + cVDPV1

Figure 3: Number of polio cases



Between 2018 and 2021, nearly 2,100 children were paralysed in the 20 transition priority countries due to polio infections. The majority (83%) of the paralysis cases were caused by cVDPVs. All the cases caused by WPV1 were reported from the two endemic countries (Pakistan and Afghanistan).

The significant reduction of WPV1 related cases in 2021 (compared to the previous three years) indicates that efforts towards ensuring that the last two endemic countries become polio-free are promising.

The number of cVDPV outbreaks across the transition priority countries increased year by year from 2018 to 2021 (from three countries in 2018 to nine countries in 2021). The increasing geographic spread and impact of cVDPV in the priority countries has continued to pose a serious challenge to the polio transition efforts, especially in the countries affected by outbreaks.

1.2. Immunization against polio

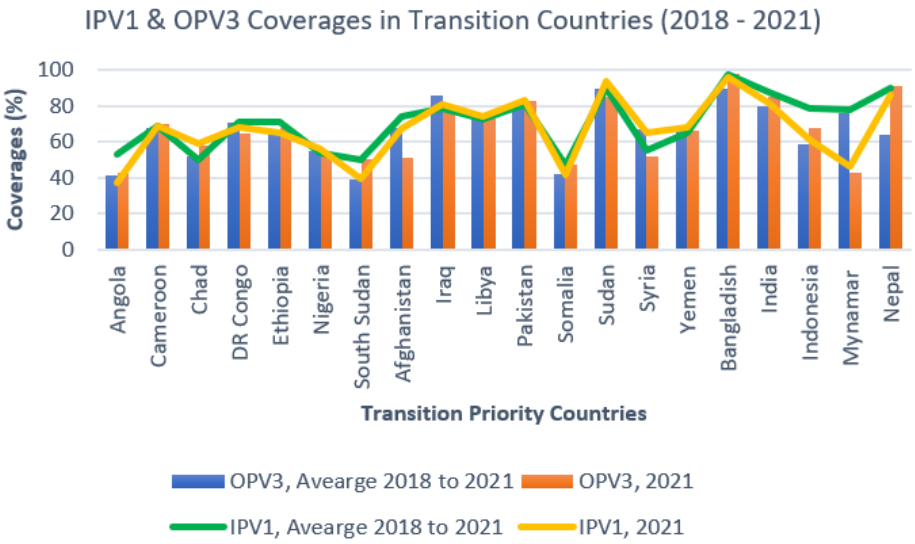
OPV3 and IPV1 coverage are used as proxy indicators to measure the performance of essential immunization towards the achievement of strategic objective 1 (reaching and sustaining a polio free world).

The geographic distribution of IPV in immunization schedules shows that, as of 2021, 17 (85%) of polio transition countries have 2 doses of IPV in their schedules. The countries still with one dose of IPV are Ethiopia, South Sudan, and Myanmar [8].

[8] https://immunizationdata.who.int/

The cumulative national coverage estimates of IPV1 and OPV3 (Figure 4) in polio transition countries were both below the minimum performance target of ≥90%. Comparatively, across the three target regions, SEAR had better performance followed by EMR and then AFR.

Figure 4: OPV3 and IPV1 Immunization Coverage



Among the 20 countries hosting 14.3 million zero dose children in 2021 (the highest number globally in the recent years) [9], twelve transition countries (Afghanistan, Angola, Cameroon, Chad, DR Congo, Ethiopia, India, Indonesia, Myanmar, Nigeria, Pakistan, and Somalia) were included. These countries are home to over 3/4 (78%) of zero-dose children worldwide. Moreover, polio transition countries constitute 88% of the consequential geographies for poliovirus transmission (Northern Nigeria, Eastern DR Congo, South Central Somalia, Northern Yemen, High Risk areas of Afghanistan, and High-Risk areas of Pakistan). The high number of zero dose children, and low OPV and IPV coverage in the polio transition countries may continue to impact the success of polio eradication globally.

Polio transition aims to ensure the integration and absorption of skilled human resources providing technical expertise into national health systems, supported by domestic financing. Between 2018 and 2021, the number of skilled workforce (WHO staff) funded by GPEI declined by 27%, from 671 to 490 individuals. The decline in the GPEI-supported skilled workforce was related to GPEI scaling down its HR capacities in some of the countries targeted for polio transition, notably Angola (60% decrease), India (35% decrease), and Nigeria (34% decrease), among others. Nonetheless, the fact that there was a decline does not necessarily imply that this workforce has been "lost", as many may have been absorbed by other programmes. However, no evidence is available to confirm the extent of such an absorption.

2. Strengthening immunization systems, including VPD surveillance

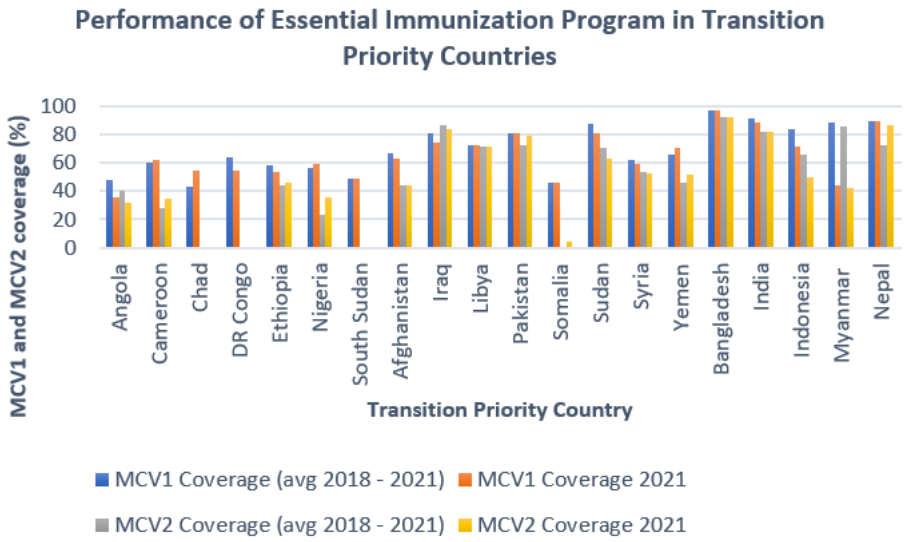
2.1 Immunization coverage

A sustainable transition depends on strong essential immunization programmes. As such, polio transition aims to contribute to strengthening immunization, including VPD surveillance, in the priority countries.

Polio transition uses measles containing vaccine coverage (MCV1 and MCV2) as proxy indicators to measure the performances of essential immunization in the priority countries. Given that measles is the "canary in the coal mine" for a weak immunization system, MCV has now become the "tracer" indicator for the Immunization Agenda 2030 (IA2030) to measure the strengthen of the immunization system.

[9] WHO/UNICEF Immunization Coverage Estimates (WUENIC) – 2021

Figure 5: MCV1 & MCV2 Immunization Coverage



The indicators related to objective 2 of the polio transition strategic plan were below the minimum performance target of ≥80% in a majority of the polio transition priority countries, except those in the SEARO region.

In 2021, only 25% (n=5) of the transition countries achieved national MCV1 annual coverage of ≥80%. The coverage was even less for MCV2 where only 20% (n=4) countries met the target.

Based on MCV1 and MCV2 national coverage estimates, except for Chad and Somalia, the transition countries performed better during the three years prior to 2021. The impact of the coronavirus disease (COVID-19) pandemic on public health interventions including immunization[10] is likely to be mostly responsible for the declines in these indicators in 2021.

Compared to other two regions, countries in the AFR region have low coverage estimates, ranging from 36% (Angola) to 62% (Cameroon). MCV2 coverage is lower for most countries and had a larger variation between the countries. Whereas all the countries in SEAR achieved ≥80% coverage, none of the countries in AFR achieved this coverage estimate. The low MCV1 and MCV2 coverages in AFR and countries in EMR with weak health systems, such as Somalia and Yemen, pose a continued risk of measles outbreaks.

Until 2021, about half of the transition countries had no data for the percentage of districts with MCV2 coverage of ≥80%, which demonstrates the gaps in monitoring immunization coverage across the transition countries.

Regarding VPD surveillance, the current M&E framework included only the polio surveillance indicators as presented in section 1.1 above. No other VPD surveillance indicators were included, this limits the capacity of the framework to track fully progress on the strategic objective.

2.2 Financial sustainability

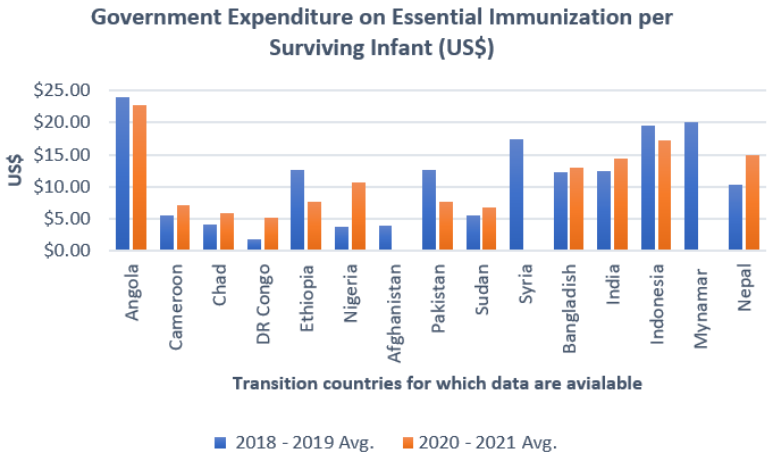
Long-term, predicable financing underpins the efforts towards a sustainable transition and is critical to ensure that governments can build effective health systems with a trained and responsive health workforce. In view of this, polio transition aims to help change the current state of activities organized in a vertical approach to an integrated approach, by integrating the transition activities within the existing national public health services where feasible. This approach requires government contributions to routine immunization funding requirements.

[10] https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74_19-en.pdf

The polio transition M&E framework uses "routine immunization expenditures funded by government sources per surviving infant" from the Joint Reporting Form (JRF) as its indicator. The indicator measures the efforts of government to sustaining immunization system, including VPD surveillance. The indicator has been collected by WHO and UNICEF since 2006 and was included in the M&E framework of the Global Vaccine Action Plan (GVAP 2011-2020) to monitor financial sustainability. Despite the relevance of the indicator and the efforts made to improve the quality of reporting process, there are still gaps in reporting completeness.

Figure 6: Government Expenditure on Routine Immunization per surviving infant (US$)

Figure 6 shows reported data on government expenditure on routine immunization per surviving infant in US$, comparing the averages of the biennium 2018-19 and the averages of the biennium 2020-21. In the latter biennium eight countries reported increasing expenditure, most probably in response to the COVID-19 pandemic. Four countries reported a decline, while the other countries did not report data.



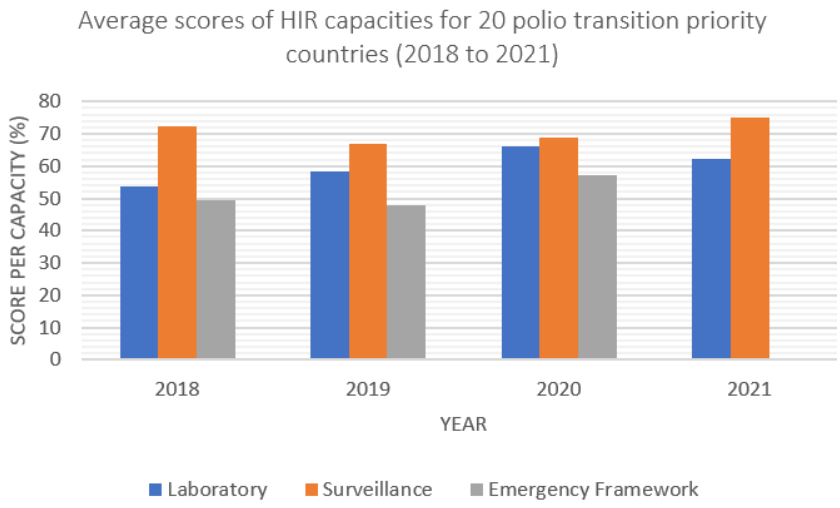
The quality of data and inconsistencies in the reporting of expenditure information, partly related to limited country capacity to estimate immunization expenditures, poses challenges for the efficient reporting of financial indicators. This limitation impedes the ability to monitor how sustainable the transition effort will be in select countries.

3. Strengthening emergency preparedness, detection, and response capacities

The polio transition M&E framework was aligned with the IHR State Party Self-Assessment Annual Report (SPAR) tool (1st ed. [11]) which was in operation until 2021. The tool consisted of 24 indicators for 13 IHR capacities needed to "detect, assess, notify, report and respond to public health risk and acute events of domestic and international concern". Three of these IHR capacities (Laboratory, Surveillance, and Emergency Framework) were included in the polio transition M&E framework due to their relevance to track progress towards the polio transition objectives. However, the indicator on emergency framework core capacity is no longer operational, and therefore was used as indicator for polio transition only until 2020, as no data could be collected on it subsequently.

[11] https://www.who.int/publications/i/item/WHO-WHE-CPI-2018-16

Figure 7: Polio Transition IHR capacity Progress 2018 – 2021.



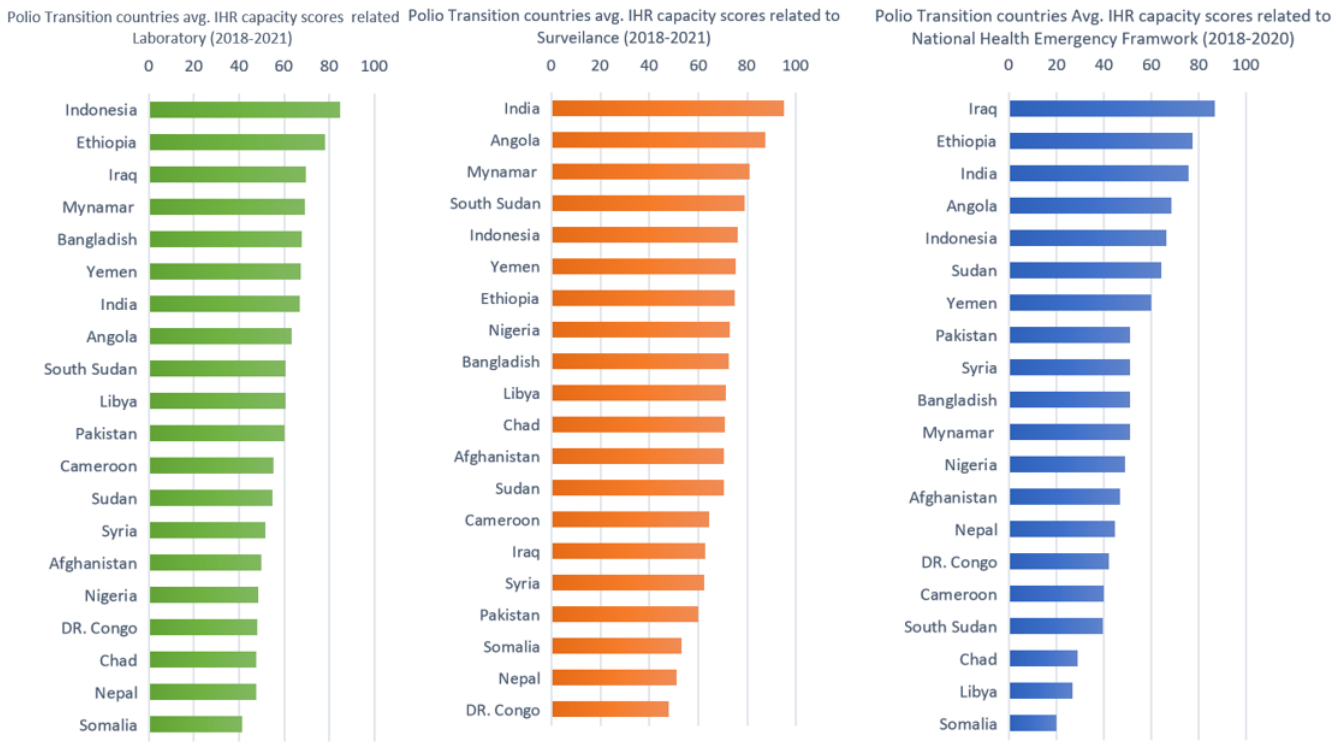
The transition countries' capacities for emergency preparedness, detection, and response, within the framework of the international health regulation/IHR (2005), generally had an encouraging outlook during the four-year period 2018 - 2021, though to a varied degree. As the data was self-reported, it may contain biases.

The IHR score related to surveillance capacity was the highest for all transition countries. The cumulative average score of the transition countries is consistent with the averages of their respective regions.

Figure 8 below demonstrates a comparison of transition countries across the three capacities (Laboratory, Surveillance, and National Health Emergency Framework) for the period between 2018 and 2021 (2018 and 2020 for National Health Emergency framework). The scores on laboratory and surveillance capacity were consistent across all countries. With majority of the transition countries scoring ≤ 60%, the emergency framework capacity was the weakest (compared to the other two). Moreover, there were considerable variations between country scores, suggesting that low scoring countries may require direct support in order to strengthen these capacities.

Somalia's and Yemen's data included in this analysis represents only 2020, as the countries did not submit the IHR self-assessed annual report on their capacities related to the three polio transition indicators for the other three years (2018, 19, and 21).

Figure 8: Polio transition countries' score of capacities related to laboratory, Surveillance, and National Health Emergency Framework (available years)



Conclusion

Despite the global and national specific challenges in the transition countries, significant progress was made towards sustainable transition of polio assets from 2018 - 2021. Although mixed in implementation, the progress made in the development of national polio transition plans, AFRO's development of a two-phased transition strategy to protect polio eradication progress and facilitate the transition efforts, EMRO's introduction of Integrated Public Health Teams as an interim step towards transition, and SEARO's successful implementation of key elements of national transition plans are some of the encouraging steps being taken towards a sustainable transition.

Overall, between 2018 and 2021, despite a wider geographic spread of cVDPV across the polio transition countries (resulting in outbreak response prioritization over transition) and low coverage of polio vaccines (IPV and OPV) in AFRO and in EMRO (contributing to sustained population immunity gaps), significant progress was made on the transition objectives, especially objective 1 (sustaining a polio free world) where the targets for indicator 1.3, 1.4, and 1.6 (Annex 2) were largely met.

The low national immunization coverage, coupled with epidemiological and programmatic challenges related to reaching under-vaccinated children, and the changes in the global public health context due to the COVID -19 pandemic, have increased the risk of disease outbreaks in a wider geographic area across the transition countries, especially those in the African region.

The high concentration of zero-dose children in the consequential geographies in the transition countries undermines efforts to achieve polio eradication, especially in AFR and EMR, but also impacts the efforts to effectively meet the transition objectives as planned.

A sustainable transition of essential polio functions requires the skills of the polio workforce, who have contributed considerably to the recovery and continuous performance of routine immunization, especially in resource-limited settings. As such, ensuring the continued availability of skilled human resources providing technical expertise at national, regional, and global levels, is critical for the success of polio transition.

The COVID-19 pandemic proved the value of the polio workforce for health emergencies, as personnel stepped up to play a vital role in the response. This built on their historic contributions, including to outbreaks of measles, Ebola, and Yellow Fever. Sustaining these essential functions through sustainable financing and capacity building will be critical to protect populations at risk.

Way forward

The recommendations proposed by the mid-term evaluation on polio transition, which were accepted and put forward for action by WHO management, include a development of a new Global Vision for Polio Transition and a revised M&E framework. These will be developed through a consultative process, well-aligned with current health investments (IA2030, PHC, HEPR, etc.), and with a specific focus on gender and equity.

The global vision will provide a renewed approach to polio transition post-2023, built around a Theory of Change (ToC). The revised M&E framework will follow this ToC, as a theoretical model to track and measure the progress of polio transition in the priority countries, aiming to:

- Address the gaps identified in the current framework;
- Galvanise what polio transition achievements and results it should be measuring;
- Illuminate how it can align best with other relevant M&E frameworks such as IA 2030, GPEI, WHE, PHC, etc. and contribute to Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs);
- Generate data that can be used by countries to help priority setting, especially in the areas that are critical for polio transition, such as repurposing skilled workforce, sustainable financing, and capacity building.

Therefore, on the way forward, the analysis presented in this report will inform the planned M&E framework review process to:

1. select indicators to enable rigorous and comprehensive monitoring to assist decision-makings at all levels and to contribute to the learning and development of polio transition.
2. establish a data management system including data analysis and use of data for action, based on international health service delivery and programme standards, and
3. integrate monitoring approaches for a well aligned data management system.

Until the new global vision is endorsed, and the revised monitoring and evaluation (M&E) framework is operationalized, the current framework will be followed to report on progress of polio transition in the 20 priority countries.

Annex

Annex1: Global averages of output and process indicators (2018-2021)

Overview - Averages of the 20 priority countries

Objective 1 – Sustaining a polio-free world after eradication of poliovirus

Indicator		2018	2019	2020	2021	Line trend
1.1	Coverage with inactivated poliovirus vaccine (IPV1)	62	71	67	67	
1.2	Coverage with bivalent oral polio vaccine (OPV)	71	73	71	67	
1.3	Rate of non-polio acute flaccid paralysis/100,000 children <15 years	7.6	8.1	6.7	8.1	
1.4	Percentage of AFP cases with two adequate stool specimens	92	91	90	90	
1.5.1	Polio Outbreak & endemic: Total number of cases of WPV	33	176	140	5	
1.5.2	Polio Outbreak & endemic: Total number of cases of cVDPV	67	301	833	581	
1.6.1	Total number of environmental surveillance sites	167	199	227	233	
1.6.2	Average number of environmental of sample per site	21	19	14	14	

Objective 2 – Strengthening immunization systems, including surveillance for vaccine-preventable diseases

Indicator		2018	2019	2020	2021	Line trend
2.1	Vaccine coverage with one dose of measles containing vaccine (MCV1)	70	70	69	66	
2.2	Vaccine coverage with two doses of measles containing vaccine (MCV2)	67	63	61	56	
2.3	Percentage of districts with MCV2 >80%	44	47	43	42	
2.4	Government expenditure on routine immunization per surviving infant (US$)	11	12	11	13	

Objective 3 – Strengthening emergency preparedness, detection and response capacity

Indicator		2018	2019	2020	2021	Line trend
3.1	Avg % of IHR self-assessment annual reporting of laboratory core capacity	54	58	66	62	
3.2	Avg % of IHR self-assessment annual reporting of surveillance core capacity	73	71	77	75	
3.3	Avg % of IHR self-assessment annual reporting of emergency framework core capacity	49	50	60	-	

Process indicators

Indicator		2018	2019	2020	2021	Line trend
4.1	Cumulative number of national polio transition plan endorsed	7	8	9	12	
4.2	Development of Action Plan (2021-2023)	-	-	2	2	
4.3	Total number of polio positions supported by the Global Polio Eradication Initiative	671	639	526	490	

Annex 2: Regional averages of output and process indicators (2018-2021)

AFRO - Averages of the 7 priority countries (Angola, Cameroon, Chad, DR Congo, Ethiopia, Nigeria, South Sudan)

Objective 1 – Sustaining a polio-free world after eradication of poliovirus

Indicator		2018	2019	2020	2021
1.1	Coverage with inactivated poliovirus vaccine (IPV1)	52	57	58	56
1.2	Coverage with bivalent oral polio vaccine (OPV)	60	60	60	58
1.3	Rate of non-polio acute flaccid paralysis/100,000 children <15 years	7.8	7.9	7.3	9.3
1.4	Percentage of AFP cases with two adequate stool specimens	90	88	87	89
1.5.1	Polio Outbreak & endemic: Number of cases of WPV	0	0	0	0
1.5.2	Polio Outbreak & endemic: Number of cases of cVDPV	54	269	286	465
1.6.1	Number of environmental surveillance sites	167	199	227	233
1.6.2	Average number of environmental of sample per site	20	22	13	15

Objective 2 – Strengthening immunization systems, including surveillance for vaccine-preventable diseases

Indicator		2018	2019	2020	2021
2.1	Vaccine coverage with one dose of measles containing vaccine (MCV1)	54	54	55	53
2.2	Vaccine coverage with two doses of measles containing vaccine (MCV2)	35	32	32	37
2.3	Percentage of districts with MCV2 >80%	6	18	16	12
2.4	Government expenditure on routine immunization per surviving infant (US$)	9.3	9.8	10.7	12.0

Objective 3 – Strengthening emergency preparedness, detection and response capacity

Indicator		2018	2019	2020	2021
3.1	Avg % of IHR self-assessment annual reporting of laboratory core capacity	47	53	64	66
3.2	Avg % of IHR self-assessment annual reporting of surveillance core capacity	69	70	80	74
3.3	Avg % of IHR self-assessment annual reporting of emergency framework core capacity	44	47	58	-

Process indicators

Indicator		2018	2019	2020	2021
4.1	Cumulative number of national polio transition plan endorsed	5	6	7	7
4.2	Development of Action Plan (2021-2023)	-	-	-	1
4.3	Number of polio positions supported by the Global Polio Eradication Initiative	513	473	382	357

EMRO - Averages of the 8 priority countries (Afghanistan, Iraq, Libya, Pakistan, Somalia, Sudan, Syria, Yemen)					
Objective 1 – Sustaining a polio-free world after eradication of poliovirus					
Indicator		**2018**	**2019**	**2020**	**2021**
1.1	Coverage with inactivated poliovirus vaccine (IPV1)	71	74	71	72
1.2	Coverage with bivalent oral polio vaccine (OPV)	69	73	71	69
1.3	Rate of non-polio acute flaccid paralysis/100,000 children <15 years	9.5	10.5	8.9	10.5
1.4	Percentage of AFP cases with two adequate stool specimens	93	93	92	92
1.5.1	Polio Outbreak & endemic: Number of cases of WPV	33	176	140	5
1.5.2	Polio Outbreak & endemic: Number of cases of cVDPV	12	26	547	116
1.6.1	Number of environmental surveillance sites	102	117	127	153
1.6.2	Average number of environmental of sample per site	21	12	12	16
Objective 2 – Strengthening immunization systems, including surveillance for vaccine-preventable diseases					
Indicator		**2018**	**2019**	**2020**	**2021**
2.1	Vaccine coverage with one dose of measles containing vaccine (MCV1)	71	71	70	69
2.2	Vaccine coverage with two doses of measles containing vaccine (MCV2)	63	64	65	56
2.3	Percentage of districts with MCV2 >80%	46	53	43	53
2.4	Government expenditure on routine immunization per surviving infant (US$)	10.9	10.5	6.7	7.6
Objective 3 – Strengthening emergency preparedness, detection and response capacity					
Indicator		**2018**	**2019**	**2020**	**2021**
3.1	Avg % of IHR self-assessment annual reporting of laboratory core capacity	58	54	62	57
3.2	Avg % of IHR self-assessment annual reporting of surveillance core capacity	75	64	70	73
3.3	Avg % of IHR self-assessment annual reporting of emergency framework core capacity	52	48	62	-
Process indicators					
Indicator		**2018**	**2019**	**2020**	**2021**
4.1	Cumulative number of national polio transition plan endorsed	0	0	0	3
4.2	Development of Action Plan (2021-2023)	-	-	-	-
4.3	Number of polio positions supported by the Global Polio Eradication Initiative	123	136	111	103

SEARO - Averages of the 5 priority countries (Bangladesh, India, Indonesia, Myanmar, Nepal)					
Objective 1 – Sustaining a polio-free world after eradication of poliovirus					
Indicator		**2018**	**2019**	**2020**	**2021**
1.1	Coverage with inactivated poliovirus vaccine (IPV1)	62	84	75	74
1.2	Coverage with bivalent oral polio vaccine (OPV)	91	91	86	77
1.3	Rate of non-polio acute flaccid paralysis/100,000 children <15 years	4.1	4.6	2.4	2.7
1.4	Percentage of AFP cases with two adequate stool specimens	92	91	91	88
1.5.1	Polio Outbreak & endemic: Number of cases of WPV	0	0	0	0
1.5.2	Polio Outbreak & endemic: Number of cases of cVDPV	1	6	0	0
1.6.1	Number of environmental surveillance sites	97	102	86	79
1.6.2	Average number of environmental of sample per site	22	21	14	9
Objective 2 – Strengthening immunization systems, including surveillance for vaccine-preventable diseases					
Indicator		**2018**	**2019**	**2020**	**2021**
2.1	Vaccine coverage with one dose of measles containing vaccine (MCV1)	93	91	88	78
2.2	Vaccine coverage with two doses of measles containing vaccine (MCV2)	80	81	80	71
2.3	Percentage of districts with MCV2 >80%	50	57	58	55
2.4	Government expenditure on routine immunization per surviving infant (US$)	14.4	14.5	13.6	15.8
Objective 3 – Strengthening emergency preparedness, detection and response capacity					
Indicator		**2018**	**2019**	**2020**	**2021**
3.1	Avg % of IHR self-assessment annual reporting of laboratory core capacity	57	71	74	66
3.2	Avg % of IHR self-assessment annual reporting of surveillance core capacity	74	80	80	80
3.3	Avg % of IHR self-assessment annual reporting of emergency framework core capacity	53	59	61	-
Process indicators					
Indicator		**2018**	**2019**	**2020**	**2021**
4.1	Cumulative number of national polio transition plan endorsed	2	2	2	2
4.2	Development of Action Plan (2021-2023)	-	-	1	1
4.3	Number of polio positions supported by the Global Polio Eradication Initiative	35	30	33	30

Annex 3: Output indicator – definition and sources

Polio Transition Strategic Objective	Output Indicator	Definition	Source
Objective 1. Reaching and sustaining polio free world	1.1. Coverage with inactivated poliovirus vaccine (IPV1) >>	*≥90% coverage with 1 doses of inactivated polio vaccine achieved in all countries*	Joint reporting form (JFR)
	1.2. Coverage with bivalent oral polio vaccine (OPV3)>>	*≥90% coverage with 1 doses of oral polio vaccine achieved in all countries*	Joint reporting form (JFR)
	1.3. Number of cases of non-polio acute flaccid paralysis per 100 000 population aged less than 15 years>>	*At least one case of non-polio acute flaccid paralysis is detected annually per 100 000 population aged less than 15 years for non-endemic regions, and two for endemic regions*	Polio Information System (polis)
	1.4. Percentage of acute flaccid paralysis cases with adequate stool collection>>	*Percentage of AFP cases with two adequate stool specimens collected 24-48 hours apart and within 14 days after paralysis at ≥80%*	Polio Information System (polis)
	1.5. Number of cases, type of poliovirus and duration of poliovirus outbreaks>>	*Any new poliovirus outbreak stopped within 120 days*	GPEI surveillance
	1.6. Number of sites and number of environmental surveillance samples per site>>	*All environmental polio surveillance sites provide one adequate sample per month*	http://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_10-en.pdf
Objective 2. Strengthening immunization system including surveilance system	2.1. Vaccine coverage with one dose of measles containing vaccine (MCV1)>>	*Country coverage with one doses of measles containing vaccine through routine services >90%*	Joint reporting form (JFR)
	2.2. Vaccine coverage 2 dose of measles containing vaccine (MCV2)>>	*Country coverage with one doses of measles containing vaccine through routine services >90%*	Joint reporting form (JFR)
	% of district with MCV2 >80%>>	*Percentage of districts with two doses of measles containing vaccine coverage >80%*	Joint reporting form (JFR)
	2.4. Government expenditure on essential immunization per surviving infant>>	*Essential immunization expenditures funded by government sources in US$ as reported in the Joint Reporting Form divided by the number of live births as estimated by the United Nations Population Division*	http://apps.who.int/immunization_monitoring/globalsummary/countries
Objective 3. Strengthening emergency preparedness, detection, and response capacities of countries	3.1. Average % of IHR self-assessment annual reporting of laboratory core capacity>>	*Average percentage of States Parties to the International Health Regulations (2005) self-assessment annual reporting of laboratory core capacity*	State Party Self-Assessment Annual Reporting (SPAR)
	3.2. Average % of IHR self-assessment annual reporting of surveillance core capacity>>	*Average percentage of States Parties to the International Health Regulations (2005) self-assessment annual reporting of surveillance core capacity*	State Party Self-Assessment Annual Reporting (SPAR)
	3.3. Average % of IHR self-assessment annual reporting of emergency framework core capacity>>	*Average percentage of States Parties to the International Health Regulations (2005) self-assessment annual reporting of emergency framework core capacity*	State Party Self-Assessment Annual Reporting (SPAR)