

Mid-term evaluation of the implementation of the Strategic Action Plan on Polio Transition (2018-2023)

Volume 2: Annexes (including country case studies)

Corporate evaluation
commissioned by the
WHO Evaluation Office

April 2022



EURO HEALTH GROUP

Report by Euro Health Group A/S

Core evaluation team: Maiken Mansfeld Jacobsen (Team Leader), Michele Gross (Deputy Team Leader), Ann Levin, Ida Marie Pierrel-Boas

Rosenkæret 13, st.tv
2860 Søborg
Denmark
<https://www.ehg.dk>

The analysis and recommendations of this report are those of the independent evaluation team and do not necessarily reflect the views of the World Health Organization. This is an independent publication by the WHO Evaluation Office.

Any enquiries about this evaluation should be addressed to:

Evaluation Office, World Health Organization

Email: evaluation@who.int

Table of contents

Annex 1: Terms of Reference	1
Annex 2: Results on Action Plan output indicators, country level	5
Annex 3: Polio transition workplan 2021/22.....	19
Annex 4: Evaluation background, methodology and matrix.....	21
Annex 5: List of people interviewed	36
Annex 6: Bibliography.....	40
Annex 7: Alignment with other related international policies, strategies and guidelines	47
Annex 8: Evaluation Theory of Change for polio transition	51
Annex 9: Interview guides	52
Annex 10: Online survey questionnaire	56
Annex 11: Country case study report, Nigeria	65
Annex 12: Country case study report, Somalia	87
Annex 13: Country case study report, Bangladesh	115

Annex 1: Terms of Reference

Mid-term evaluation of the implementation of the strategic action plan on polio transition Terms of Reference

20 July 2021

Context

The eradication of poliovirus has long been a key objective of the global health community, and recent years have witnessed significant strides toward this goal: there are currently only two countries where poliovirus remains endemic (Afghanistan and Pakistan), and new vaccines are now available to stop circulating vaccine-derived poliovirus (cVDPV) outbreaks. Further, and final, progress is expected in the coming years: the revised Polio Eradication Strategy 2022 – 2026¹, issued on 10 June 2021 by the Global Polio Eradication Initiative (GPEI), a public-private partnership led by national governments and partners ², aims to achieve certification of the eradication of poliovirus by the end of 2026.

The global eradication effort has had far-reaching consequences for global health beyond the poliovirus itself, with the investments into polio eradication serving to simultaneously support essential public health functions, including disease surveillance, immunization, outbreak preparedness and response, and to strengthen health systems more broadly in terms of human resources for health, capacity building, knowledge transfer, as well as physical infrastructure. The COVID-19 pandemic is the most recent example where polio resources were successfully redeployed to meet the immediate needs associated with the response in many countries.

Accordingly, since 2012 WHO Member States and the Independent Expert Oversight Advisory Committee (IEOAC) have emphasized the need for the development and implementation of a polio transition plan – that is, a combined exit strategy for phasing out and indemnifying polio-related assets that are no longer needed and a business continuity plan for repurposing assets that might be beneficially reallocated to other critical health priorities such as essential immunization services, surveillance and outbreak response, and health systems strengthening more generally. Member States and the IEOAC expressed a corresponding concern over the risks of failing to have a polio transition plan in place, both for global health and for the reputational, programmatic and financial risk such a gap would pose for WHO and its partners. Member States, the IEOAC, and successive Directors-General have thus referred to polio transition as a strategic priority of the Organization. Furthermore, the Transition Independent Monitoring Board (TIMB), which provides independent oversight over polio transition, has published four reports since its inception in 2016, highlighting the progress and challenges and providing specific recommended actions.³

In recognition of the importance of polio transition efforts for the Organization, in 2017, the Seventieth World Health Assembly (WHA) requested the Director-General “to develop a strategic action plan on polio transition by the end of 2017, to be submitted for consideration by the Seventy-first World Health Assembly through the Executive Board at its 142nd session.”⁴ In response to this

¹ [Delivering on a promise: Polio Eradication Strategy 2022 – 2026](#). Pre-publication version as of 10 June 2021. World Health Organization on behalf of the Global Polio Eradication Initiative (GPEI). June 2021

² These are: the Bill and Melinda Gates Foundations, Gavi – the Vaccine Alliance, Rotary International, the United Nations Children’s Fund (UNICEF), the United States Centers for Disease Control (CDC) and the World Health Organization (WHO).

³ <https://polioeradication.org/who-we-are/governance-and-structure/transition-imb/>

⁴ Decision WHA 70(9) (2017).

request a draft strategic action plan was presented to, and noted by, the WHA in May 2018.¹ The Strategic Action Plan on polio transition (2018-2023) has three key objectives, namely to:

- (1) sustain a polio-free world after the eradication of poliovirus;
- (2) strengthen immunization systems, including surveillance for vaccine-preventable diseases, in order to achieve the goals of WHO's global vaccine action plan 2011-2020; and
- (3) strengthen emergency preparedness, detection and response capacity in countries to fully implement the International Health Regulations (2005).

Responsibility for the finalization and implementation of the Strategic Action Plan currently resides with the Deputy Director-General of WHO.

As a provision for a mid-term evaluation by the WHO Evaluation Office was included on the polio transition road map that was prepared to support implementation of the strategic action plan, this evaluation was also included in the biennial evaluation workplan 2020–2021 approved by the Executive Board at its 146th session in February 2020.

Since the presentation of the strategic action plan to the WHA, numerous internal and external changes have taken place, including the revision of timelines for eradication of the poliovirus as well as the COVID-19 pandemic, which has had an impact on country operations as well as on global health priorities and financing. This evaluation is therefore being undertaken within a context of renewed momentum. These terms of reference set forth the objective, scope and overall approach of this evaluation.

Objective and purpose

The objective of the initial evaluation is to assess the status and implementation of the strategic action plan on polio transition, and to propose any modifications needed to adapt to the changing context. The evaluation will: (a) document key achievements, best practices, challenges, gaps, and areas for improvement in the design and implementation of the strategic action plan; and (b) identify the key contextual factors and changes in the global public health realm that have affected the development and implementation of the Strategic Action Plan and the roadmap developed in 2018; and (c) make recommendations as appropriate on the way forward to enable the successful implementation of the plan.

In view of the timing of this evaluation, coming as it does at a time when the Organization has renewed its attention to and action on polio transition, when the polio programme stands at a key juncture in the achievement of eradication, and when financing for polio transition is on the verge of being subsumed under the base segment of the programme budget for the first time as of 2022-2023, the evaluation will be primarily forward-looking and formative in nature. Its purpose will be to generate learning that can inform the relevant discussions and decisions both within WHO (e.g., those of the Director-General, Deputy Director-General and Global Policy Group) and its governing bodies as well the interactions between WHO and key stakeholders (e.g., Member States, partners, and others).

¹ Document [A71/9 \(2018\)](#) and the summary records of the Seventy-first World Health Assembly, Committee A, sixth and eighth meetings.

Scope and approach

The evaluation will cover the conceptualization and implementation of polio transition across all levels of the Organization.¹ The evaluation will be guided by considerations of the main evaluation criteria of relevance, efficiency, effectiveness, sustainability and impact, and will provide information on:

- the implementation of the strategic action plan on polio transition;
- the structures, frameworks, processes and mechanisms for implementing the strategic action plan, for monitoring implementation, and for taking necessary corrective actions in response to monitoring information;
- the dedication and allocation of human and financial resources to implement the plan;
- factors that have affected implementation progress to date;
- key changes that have an impact on strategic objectives and the implementation roadmap; and
- the overall plan for the transition in the coming years.

The evaluation will be conducted using a combination of quantitative and qualitative methods, including:

- a desk review of available documentation, including strategic documents produced on polio transition, governing body documents, and documents associated with the related issue of polio eradication;
- key informant interviews with stakeholders, including WHO senior management and other relevant technical staff within the Secretariat at both the global and regional level, Member States, members of the IEOAC, the chair and members of the TIMB and partners on the polio eradication and transition effort; and
- potentially field visits to a small sample of countries (to be determined during the inception phase)

Within this context, the informed opinions of Member States are crucially important. The views of Member States could be sought by means of key informant interviews/focus group discussions and/or an online survey. The evaluation will also take into account the work of the TIMB, as well as the follow-up to its recommendations. In addition, the IEOAC, which has been actively engaged in discussions of the polio transition over the years, will be kept informed throughout the evaluation process and consulted on the evaluation at key junctures.

The overall process and methodological approach will follow the principles set forth in the WHO Evaluation Practice Handbook² and the United Nations Evaluation Group Norms and Standards for Evaluation and Ethical Guidelines for Evaluation.³ The review will also adhere to WHO's cross-cutting evaluation strategies on gender, equity, vulnerable populations and human rights, and include, to the extent possible, disaggregated data and analysis.

¹ Headquarters, regional offices and country offices

² [WHO Evaluation Practice Handbook](#). Geneva: World Health Organization; 2013.

(https://apps.who.int/iris/bitstream/handle/10665/96311/9789241548687_eng.pdf?sequence=1, accessed 12 April 2019).

³ Norms and Standards for Evaluation. New York: United Nations Evaluation Group; 2016 and UNEG Ethical Guidelines for Evaluation, United Nations Evaluation Group Foundation Document, UNEG/FN/ETH(2008) (<http://www.unevaluation.org/document/detail/102>) (both accessed 12 April 2019).

The evaluation process

The evaluation will be conducted by an external independent evaluation team, selected by the Evaluation Office through an open tender. The evaluation team will have appropriate knowledge of the subject of the evaluation and skills mix, as well as relevant experience in performing similar evaluations in multilateral or United Nations organizations. The evaluation team will develop the evaluation methodology, conduct the analysis and deliver a report of the findings, including recommendations.

The Evaluation Office will provide the necessary support to the evaluation team during the evaluation exercise (finalization of methodology, facilitation of the evaluation process, identification of relevant documentation and data).

Proposed timeline

- Development of the terms of reference for the evaluation: July 2021
- Issuance of the open tender (request for proposals): July 2021
- Selection of the evaluation team: August 2021
- Data collection (September-October 2021)
- Presentation of the final report for consideration by the Executive Board, through the Programme, Budget and Administration Committee at its 36th meeting: May 2022

Footnote¹

¹ The timelines were amended in agreement with the WHO Evaluation office during the inception phase.

Annex 2: Results on Action Plan output indicators, country level

Output indicators 1.1 and 1.2 - Polio vaccination coverage²

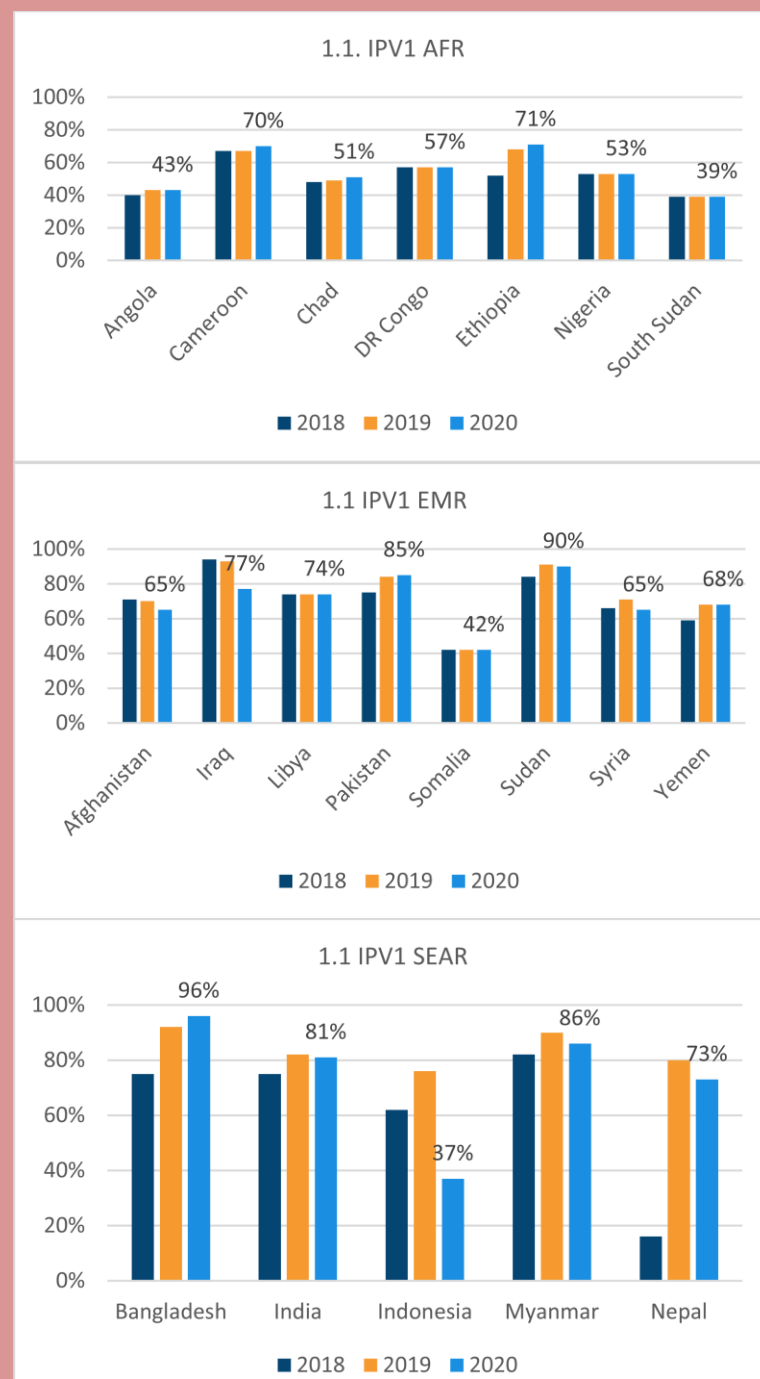
The estimated coverage of IPV1 varies greatly across regions and countries (see Figure 1). Eleven countries reported an increase between 2018 and 2020, five countries reported unchanged estimates and four countries reported a declining estimated IPV1 coverage.

Countries in **AFR** either increased coverage of IPV1 (Ethiopia, Cameroon, Chad, Angola) or coverage remained unchanged (DRC, Nigeria, and South Sudan). None of the countries reached 90% coverage of the 1st dose, the closet being Ethiopia reaching 71% in 2020. Average coverage levels the seven countries were 51%, 54% and 55%, in 2018, 2019 and 2020 respectively³.

For countries in **EMR** the IPV1 coverage decreased or remained unchanged for all countries between 2019 and 2020, except in Pakistan. A worrying decline of IPV1 coverage was reported by Iraq (from above 90% in 2018/19 to 77% in 2020.) One country in the region (Sudan) reached the benchmark of a 90% coverage estimate in 2020, and Somalia remained at the lowest level of 42% coverage from 2018-2020. Averages from 2018 to 2020 for the 8 countries were 71%, 74% and 71% respectively⁴.

Countries in **SEAR** have a higher IPV1 coverage estimate overall

Figure 1: IPV1 coverage across 20 polio transition priority countries (WUENIC estimates)



² WUENIC: [WHO/UNICEF estimates of national immunization coverage](#)

³ Note that these are not weighted averages, and thus do not take into account the population sizes. Weighted averages are expected to be lower because of the relatively lower coverage in Nigeria coupled with the large population size. However for comparison across years this is acceptable.

⁴ Note that these are not weighted averages

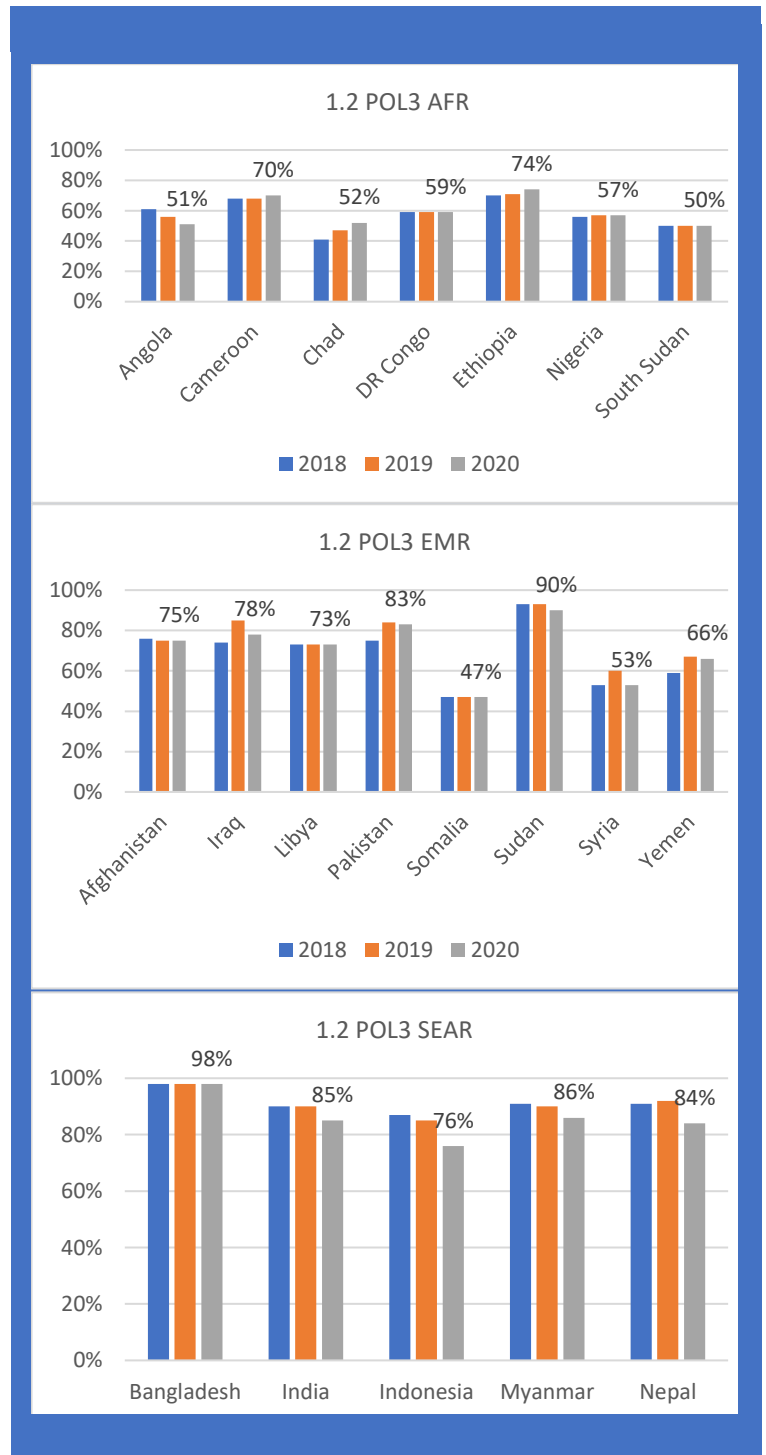
Figure 2: Coverage of oral polio vaccine % (POL3) across 20 polio transition priority countries (WUENIC estimates)

than the other two regions, while only Bangladesh reached above 90% coverage in 2020. Increases were visible for all countries between 2018 and 2020, except Indonesia with a sharp decrease in estimated coverage from 76% in 2019 to 37% in 2020. All countries except Bangladesh noted a decreasing trend between 2019 and 2020. Average coverage levels for the five countries were 62%, 84% and 75% in 2018, 2019 and 2020 respectively⁵.

As with IPV1 coverages, the coverage of **oral polio vaccine, third dose (POL3)**⁶ varies significantly across the 20 polio transition countries (see Figure 2) but remained slightly above IPV coverage rates in all countries except four countries in EMR by 2020.

In **AFR** four countries saw limited increase in coverage of third dose of oral polio vaccine between 2018 and 2020 (Ethiopia, Cameroon, Chad, Nigeria). Coverage remained unchanged at low levels in two countries (DRC and South Sudan) and Angola decreased coverage between 2018 and 2020. None of the countries reached the 90% coverage goal, the closest being Ethiopia reaching 74% coverage in 2020. Average coverage levels for the seven countries were 58%, 58% and 59%, in 2018, 2019 and 2020 respectively⁷.

In **EMR** the POL3 coverage increased in Iraq, Pakistan, and Yemen from 2018 to 2020, and remained unchanged in Libya, Somalia, and Syria. Afghanistan and Sudan showed a slightly declining estimated coverage, while Sudan remained above the benchmark of a 90% coverage estimate in 2020. Somalia remained at the lowest coverage level at 47% through the period 2018-2020. Averages for the eight countries were 69%, 73% and 71%, in 2018, 2019, and 2020 respectively⁸.



⁵ Of which the very low coverage in Nepal in 2018 contributes significantly to the overall coverage rate. The very low coverage in Nepal was due to IPV shortages and IPV only being introduced in Oct 2018 in Nepal.

⁶ WUENIC: [WHO/UNICEF estimates of national immunization coverage](#)

⁷ Note that these are not weighted averages, and thus do not take into account the population sizes. Weighted averages are expected to be lower because of the relatively lower coverage in Nigeria coupled with the large population size. However, for comparison across years this is acceptable.

⁸ Note that these are not weighted averages

In **SEAR** higher POL3 coverage estimates were recorded in comparison to the other regions, with all countries showing a declining trend since 2018. Only Bangladesh reached above the 90% coverage target in 2020 (98%). Averages for the five countries were 91%, 91%, and 86%, in 2018, 2019 and 2020 respectively⁹.

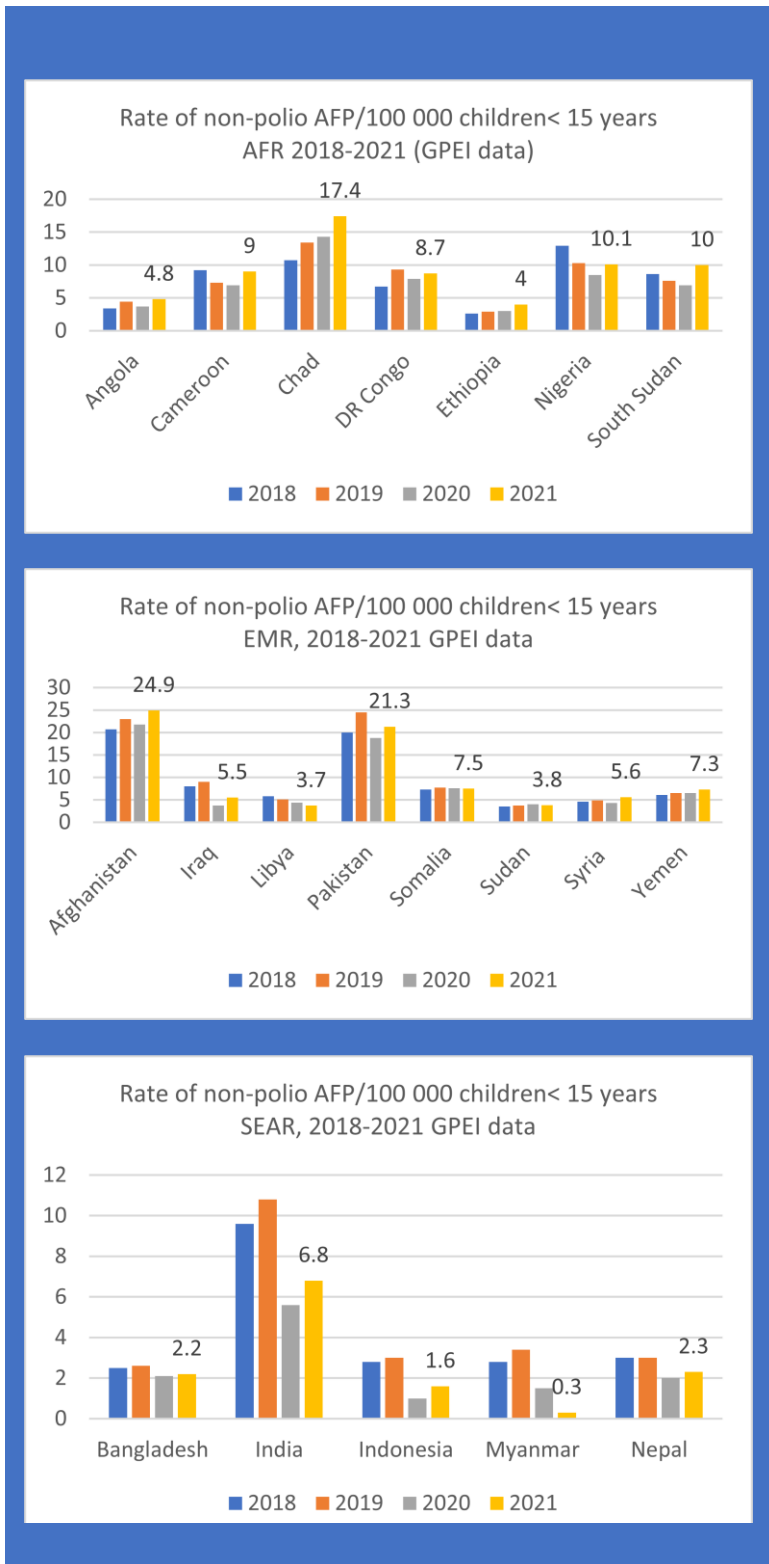
Output indicators 1.3 and 1.4 - Polio surveillance indicators¹⁰

The rate of non-polio AFP cases has been reported above the performance targets of 1/100 000 (and for endemic countries: 2/100 000) for almost all polio transition countries throughout the period 2018-2021. Only Myanmar reported rates below 1/100 000 in 2020 (see Figure 3).

In **AFR**, five countries reported higher rates in 2021 compared to 2018 (Angola, Chad, DRC, Ethiopia, and South Sudan), whereas two countries reported declining rates (Cameroon, Nigeria). All seven countries reported rates well above the target of 1/100 000 in all years, and all countries increased performance on this indicator between 2020 and 2021. Averages from 2018-2021 for the seven AFR countries were 7.7, 7.9, 7.3 and 9.1 respectively. (Figure 3)

In **EMR**, the non-polio AFP rates have seen a more stable trend across the period 2018-2021, with small fluctuations in five countries (Libya, Somalia, Sudan, Syria, and Yemen), and

Figure 3: Rate of non-polio AFP/100 000 children < 5 years across 20 polio transition priority countries (GPEI data), 2018-2021



⁹ Note that these are not weighted averages

¹⁰ GPEI data: <https://extranet.who.int/polio/public/CaseCount.aspx>

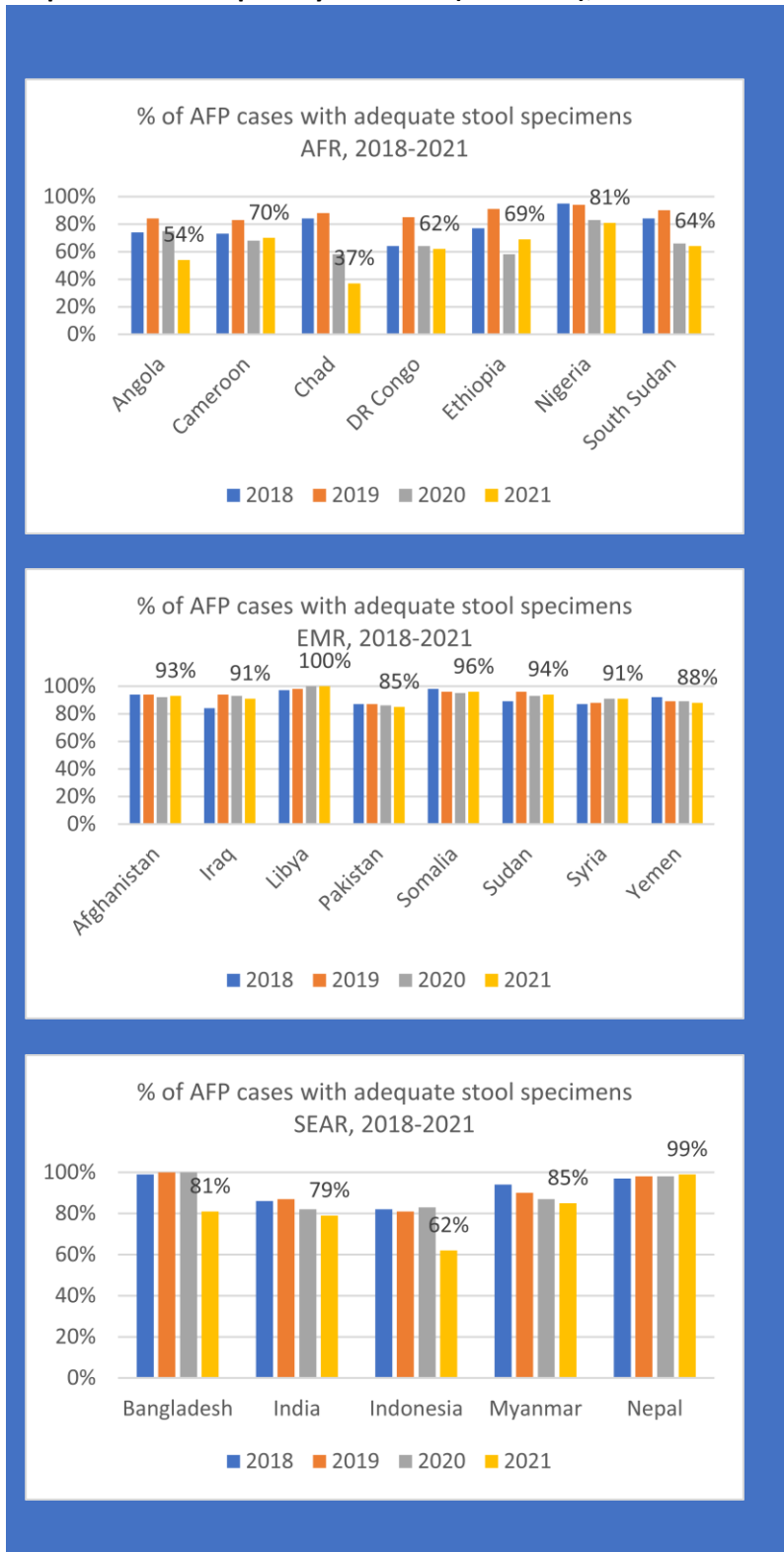
increases compared to baseline in 2018 in Afghanistan and Pakistan, albeit with dips in 2020. Iraq reported a declining trend over the period, however all eight countries reported rates above the target of 1/100 000 in all years (Figure 3). Averages for the eight EMR countries were 9.5, 10.6, 8.9 and 10.0 for the years 2018, 2019, 2020 and 2021 respectively.

The SEAR shows an overall lower rate of non-polio AFP than the two other regions and an overall decreasing trend across the time-period 2018-2021. India reported the highest rates in all years among the five countries, however with a decreased rate since 2020. Rates in Indonesia and Myanmar remained the lowest, with 1,6/100 000 and 0,3/100 000 in 2021 respectively. (Figure 3). Average rates for 2018-2021 for the five SEAR countries were 4.1, 4.6, 2.4 and 2.6 respectively.

Indicator 1.4, the proportion of AFP cases with adequate stool specimen, showed 12 out of 20 polio transition priority countries reaching the performance target of 80% in 2021 (see Figure 4)¹¹. Performance however varied among the three polio priority regions, with AFR showing the lowest proportion of adequate stool specimen collection and significant declines since 2020.

AFR showed significant fluctuations in the time

Figure 4: % of AFP cases with adequate stool specimens across 20 polio transition priority countries (GPEI data), 2018-2021



¹¹ GPEI data: <https://extranet.who.int/polio/public/CaseCount.aspx>

period under review, with notable decline particularly in 2020 and 2021, and performance still remaining below 2018 values in most countries by 2021. Angola and Chad particularly showed a sharp decrease and alarming low rates in 2021 (45 and 37% respectively) compared to earlier years. Only one country reached the performance target of 80% in 2021 (Nigeria). Average rates for 2018-2021 for the seven AFR countries were 79%, 88%, 67% and 62% respectively¹².

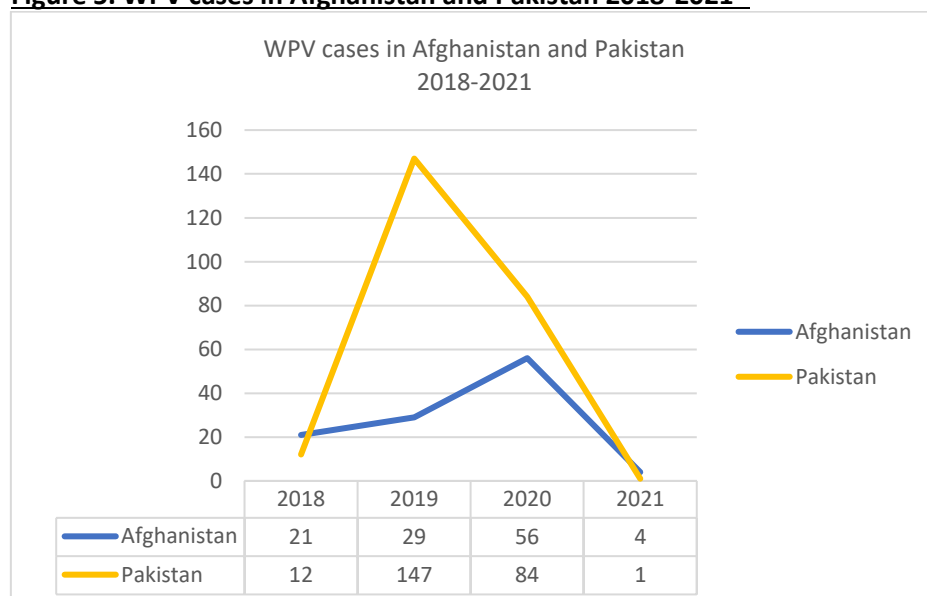
All polio transition priority countries in EMR had a continued high and stable proportion of coverage above 80% in all countries across the years. Average rates for 2018-2021 for the eight EMR countries were 91%, 93%, 92% and 92% respectively¹³.

In SEAR, a declining trend over the years 2018-2021 and particularly in 2021 was observed in Bangladesh, Indonesia, India and Myanmar, yet Bangladesh, Myanmar and Nepal reached above the performance target of 80% in all reporting years under investigation. Average rates in 2018-2021 for the five SEAR countries were 92%, 91%, 90% and 81% respectively¹⁴.

Output indicator 1.5: Polio outbreaks, regional and country disaggregation

Two countries in the world are still considered polio endemic - Pakistan and Afghanistan. In 2018, the total number of wild polio virus outbreaks were recorded at 33, which increased to 176 cases in 2019, reached 140 cases in 2020 and then decreased substantially to only 5 cases in 2021 (see Figure 5).

Figure 5. WPV cases in Afghanistan and Pakistan 2018-2021¹⁵



While significant progress has been made on wild polio virus interruption, the number of circulating vaccine derived polio virus (cVDPV) AFP cases has increased by more than 700% between 2018 and 2021 (see Figure 6) among 14 polio transition priority countries.

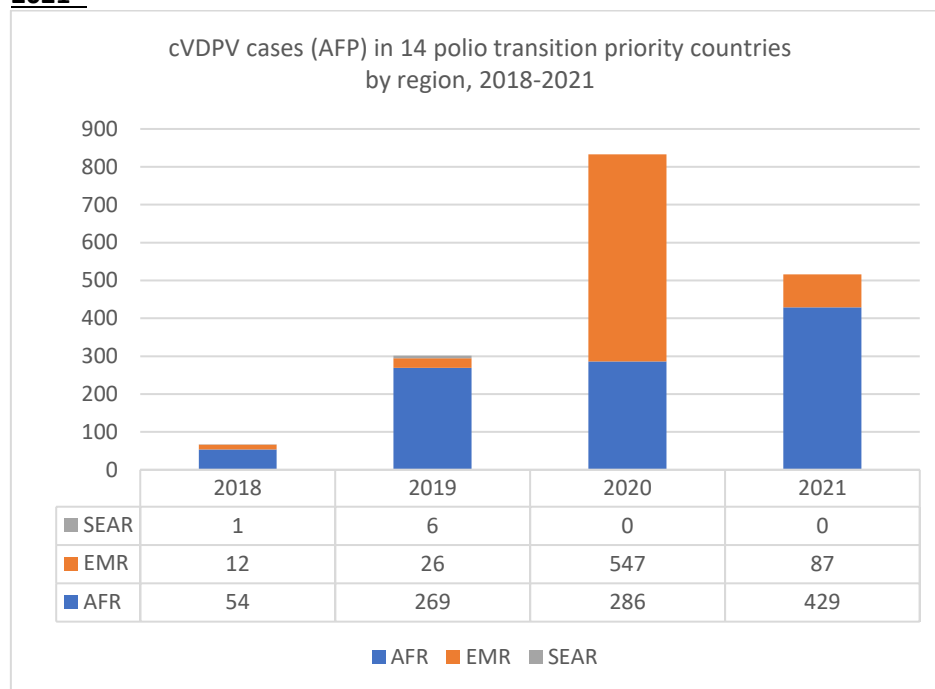
¹² Note that these are not weighted averages

¹³ do

¹⁴ Note that these are not weighted averages

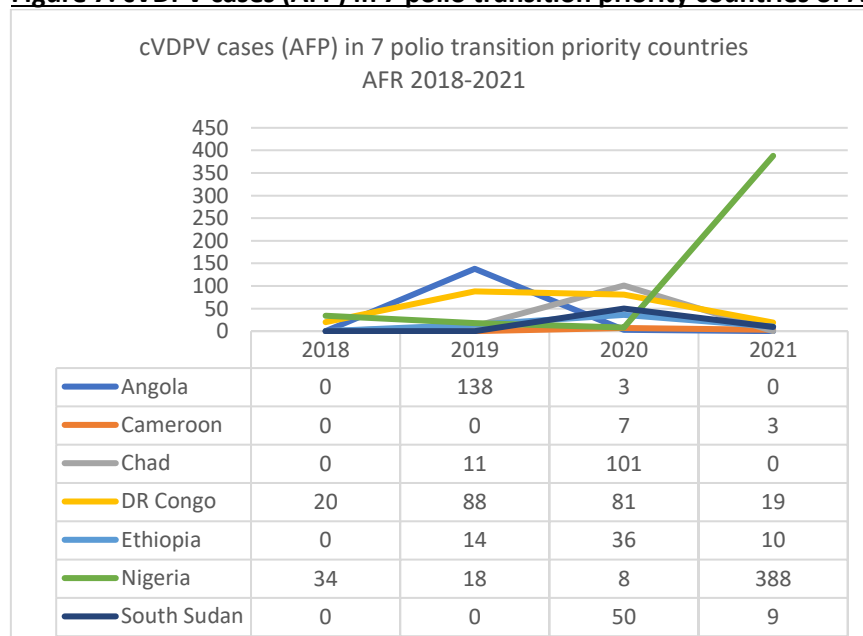
¹⁵ GPEI data: <https://extranet.who.int/polio/public/CaseCount.aspx>

Figure 6. cVDPV cases (AFP), 14 polio transition priority countries, regional disaggregation, 2018-2021¹⁶



Only 6 of the 20 polio priority countries have not recorded any cVDPV outbreaks in the time period 2018-2021 (Bangladesh, India, Iraq, Libya, Syria and Nepal). In 2020 the highest number of cases was recorded in EMR (mainly in Afghanistan and Pakistan) whereas in 2021, the highest number of cases were reported in AFR, of which 83% were recorded in Nigeria (Figures 7 and 8).

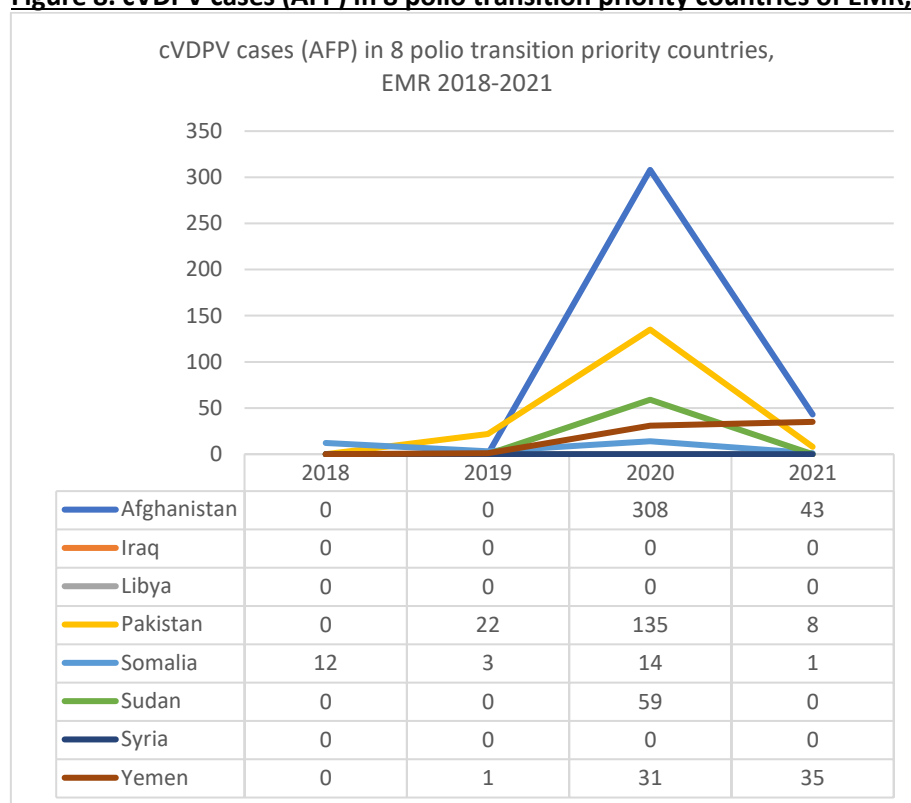
Figure 7. cVDPV cases (AFP) in 7 polio transition priority countries of AFR, 2018-2021¹⁷



¹⁶ Ibid

¹⁷ GPEI data: <https://extranet.who.int/polio/public/CaseCount.aspx>

Figure 8. cVDPV cases (AFP) in 8 polio transition priority countries of EMR, 2018-2021¹⁸



¹⁸ [ibid](#)

Output indicator 2.1 - MCV1 vaccination coverage, regional and country disaggregation¹⁹

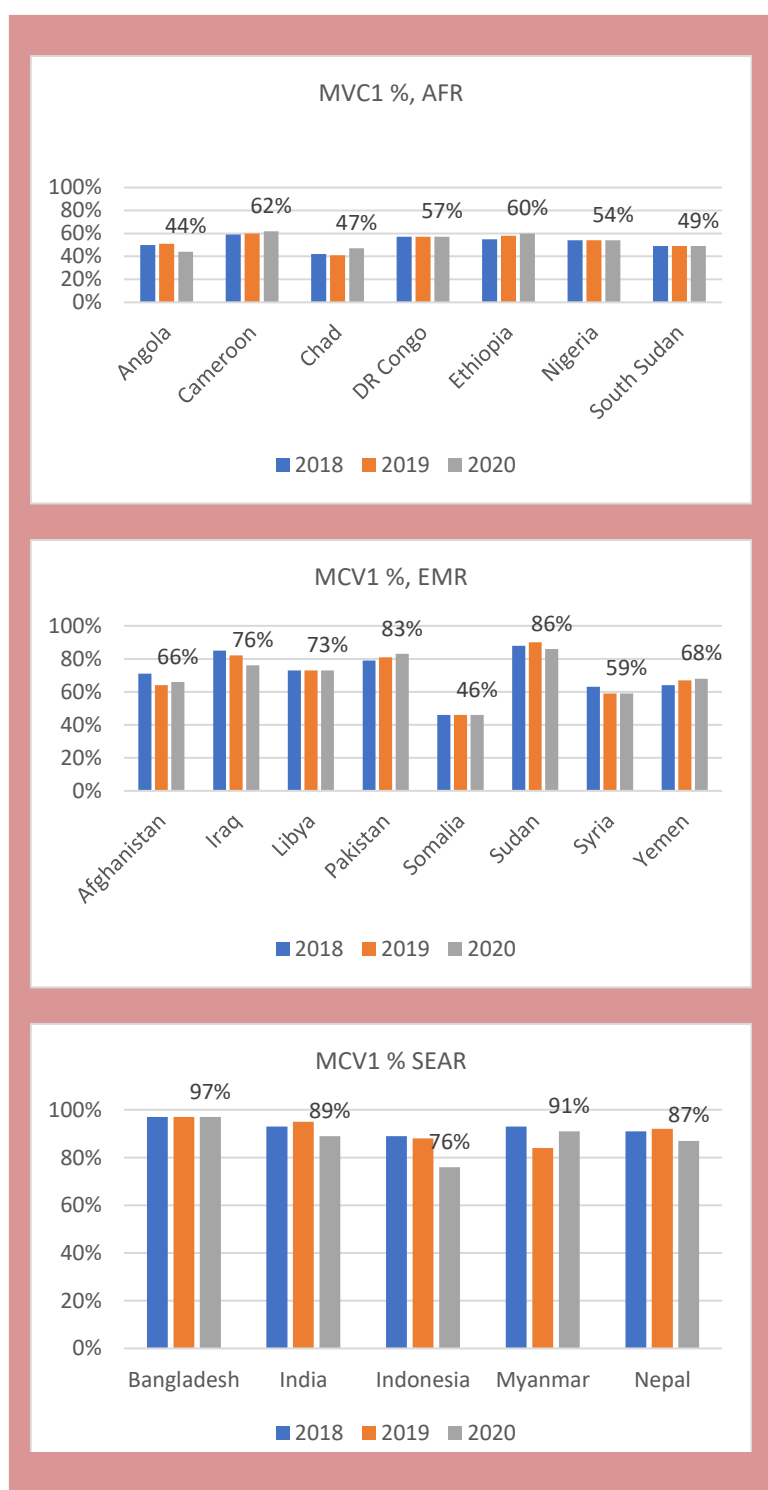
The estimated coverage of MCV1 varies greatly from region to region and country to country. (see Figure 9). Five out of 20 polio transition priority countries showed an increase in coverage between 2018 and 2020. Six countries had unchanged estimates and nine countries reported a declining estimated MCV1 coverage.

In AFR, only minor fluctuations are noted across the time-period under investigation, and all countries are still far from the performance target of >90% coverage. The only country with a decreased estimate was Angola, whereas Cameroon, Chad and Ethiopia had slightly increasing coverage levels. Average estimates for the seven AFR countries were 52%, 53%, 53% in 2018, 2019 and 2020 respectively²⁰.

EMR generally depicts a more or less stagnant picture on MCV1 coverage with a few countries increasing coverage estimates (Pakistan, Yemen), whereas most coverage estimates decreased between 2018 and 2020 (Afghanistan, Iraq, Sudan and Syria). Two countries were close to meeting the benchmark of 90% in 2020 (Pakistan and Sudan), whereas Somalia remained lowest through all years. Average estimates for the 8 EMR countries were 71%, 70%, 70% in 2018, 2019 and 2020 respectively²¹.

In SEAR, the coverage estimates are generally higher than for countries in the two other regions, but with a decreasing trend in 2020 compared to earlier years. Only two countries (Bangladesh and Myanmar) remained above the target of >90% in 2021, with India and Nepal falling just below 90% in 2021. Indonesia had the lowest coverage levels in 2021 at 76%. Average estimates for 2018-2020 for the 5 SEAR countries were 72%, 71%, 88% respectively²².

Figure 9. MCV1 coverage across 20 polio transition priority countries, 2018-2020 (WUENIC)



¹⁹ WUENIC: [WHO/UNICEF estimates of national immunization coverage](#)

²⁰ Note that these are not weighted averages

²¹ *ibid*

²² *ibid*

Output indicator 2.2 - MCV2 national vaccination coverage, regional and country disaggregation²³

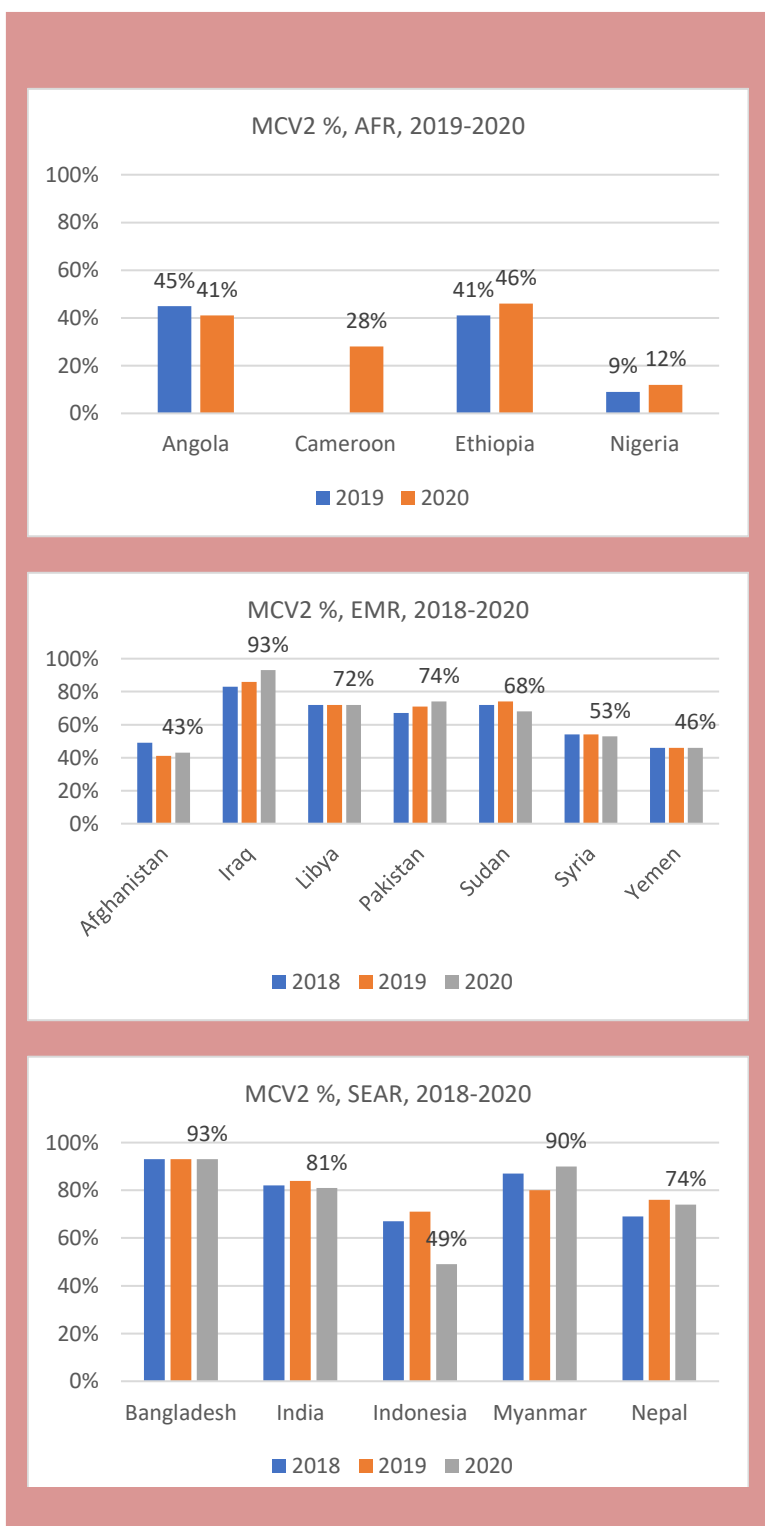
Large variations are noted for MCV2 coverage among the 16 polio transition priority countries which had estimates for this indicator. The variations ranged from 12%-93% in 2020. Six countries showed an increasing trend between 2018 and 2020 (Ethiopia, Iraq, Myanmar, Nigeria, Nepal, and Pakistan), three countries had unchanged estimates (Libya, Yemen, and Bangladesh) and six countries had declining MCV2 coverage levels (Angola, Afghanistan, Sudan, Syria, India, Indonesia).

MCV2 coverage estimates were not available for many polio priority countries in AFR. Among AFR countries with estimates a generally low coverage between 12-46% was noted in 2020. Nigeria has by far the lowest estimated coverage of MCV2 among all polio transition priority countries with 12% in 2020. The **total average coverage level for the 4 AFR countries with estimates was 32% in 2020, far below the performance target of at least 90%.**

In EMR, coverage rates in 2020 ranged between 43% (Afghanistan) and 93% (Iraq). Only two countries had increased MCV2 estimates between 2018 and 2020, while two of the countries showed a stagnant trend (Libya, Yemen) and three countries had declining estimates (Afghanistan, Sudan, Syria). Only Iraq reached the target of 90% coverage in 2020. **Average rates for 2018-2020 for the 7 EMR countries with estimates were 63%, 63% and 64% respectively.**

Polio transition priority countries of SEAR show overall higher MCV2 coverage estimates, except Indonesia, than countries in the other two regions. Bangladesh and Myanmar reached the target of 90% coverage in 2020. Coverage levels in India were somewhat stable across the three years and was estimated at 81% in 2020. Indonesia had a sharp decline in 2020 from 71% in 2019 to 49% in 2020. **Average rates for 2018-2020 for the 5 SEAR countries were 77%, 80%, 77% respectively.**

Figure 10: MCV2 national coverage across 16 polio transition priority countries, 2018-2020 (WUENIC)



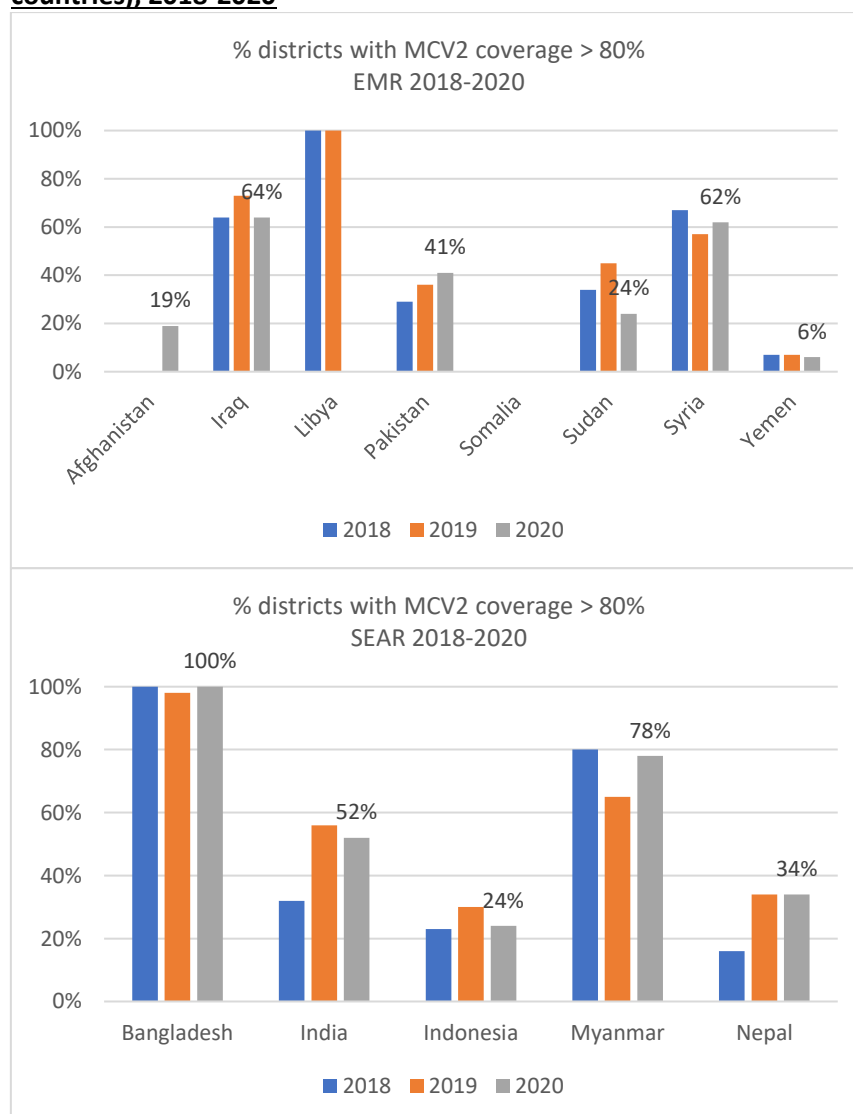
²³ WUENIC: [WHO/UNICEF estimates of national immunization coverage](https://www.who.int/data/datasets/indicators/WHO/UNICEF_estimates_of_national_immunization_coverage)

Output indicator 2.3. - MCV2 district vaccination coverage, country disaggregation

MCV2 coverage is also monitored in terms of coverage at subnational levels, using the performance indicator % of districts in the country with an MCV2 coverage level above 80%. Yet only half of the 20 polio transition priority countries consistently have such estimates. Figure 11 depicts estimates by country from EMR and SEAR for the time-period 2018-2020. Only very sporadic data are available for AFR and are thus not shown in the trend figures.

Large variations are noted between countries, ranging from 1% in Nigeria (not presented in figures below) to 100% in Bangladesh in 2020. In most countries with these estimates, less than 60% of districts have an MCV2 coverage >80% which points to sustained inequity issues and immunization gaps in many countries (including Afghanistan, Angola, Ethiopia, Nigeria, India, Indonesia, Nepal, Pakistan, Sudan, and Yemen) – note not all countries are presented in the figure below²⁴.

Figure 11. % of districts with MCV2 coverage > 80% (EMR and SEAR polio transition priority countries), 2018-2020



²⁴ WHO Polio transition dashboard: <https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard>

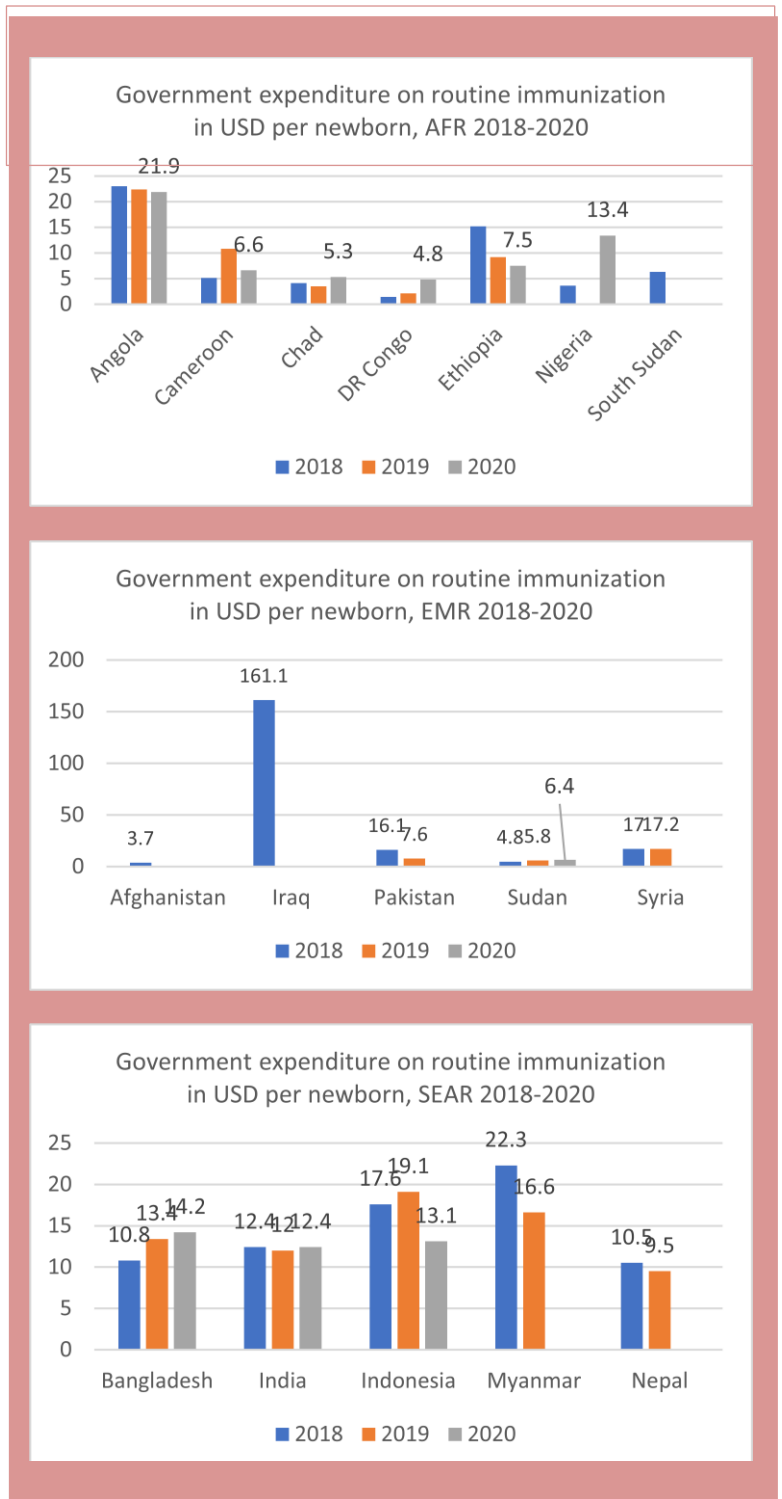
Output indicator 2.4. - Government expenditure on routine immunization in USD per newborn, country disaggregation

Government expenditures on routine immunization has slightly increased in AFR between 2018 and 2020. The **total averages for the seven AFR countries were US\$ 8,4 per newborn in 2018, US\$ 9,6 in 2019 and US\$ 9,9 in 2020** (Figure 12)²⁵. Large variances across countries are notable, with Angola reporting the highest expenditures in 2020 at US\$ 21,9 / newborn and DRC the lowest (US\$ 4,8) in 2020. Increasing trends between 2018- 2020 were observed in Cameroon, Chad, DRC, and Nigeria, and decreasing trends in Angola and Ethiopia.

Few polio transition priority **countries of the EMR** have reported consistently across the years on this indicator. Among those that have, all countries, except Iraq, have reported expenditures below US\$ 20/ newborn in all years under investigation. Iraq being an outlier with expenditure of US\$ 161/ newborn in 2018. The trend is decreasing in Pakistan and slightly increasing in Syria and Sudan. **The total averages for the 5 EMR countries were US\$ 40 in 2018 (though highly influenced by Iraq), US\$ 10,2 in 2019 and US\$ 6,4 in 2020.**

In SEAR government expenditures are more equal across the countries that have reported, with a decreasing tendency for most polio transition priority countries between 2018-2020. **The total averages for the 5 SEAR countries were US\$ 14.7 in 2018, US\$ 14.1 in 2019 and US\$ 13.2 in 2020.**

Figure 12. Government expenditure on routine immunization, polio transition priority countries, 2018-2020



²⁵ WHO Polio transition dashboard: <https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard>

Output indicator 3.1. - Average % of IHR self-assessment annual reporting of laboratory core capacity

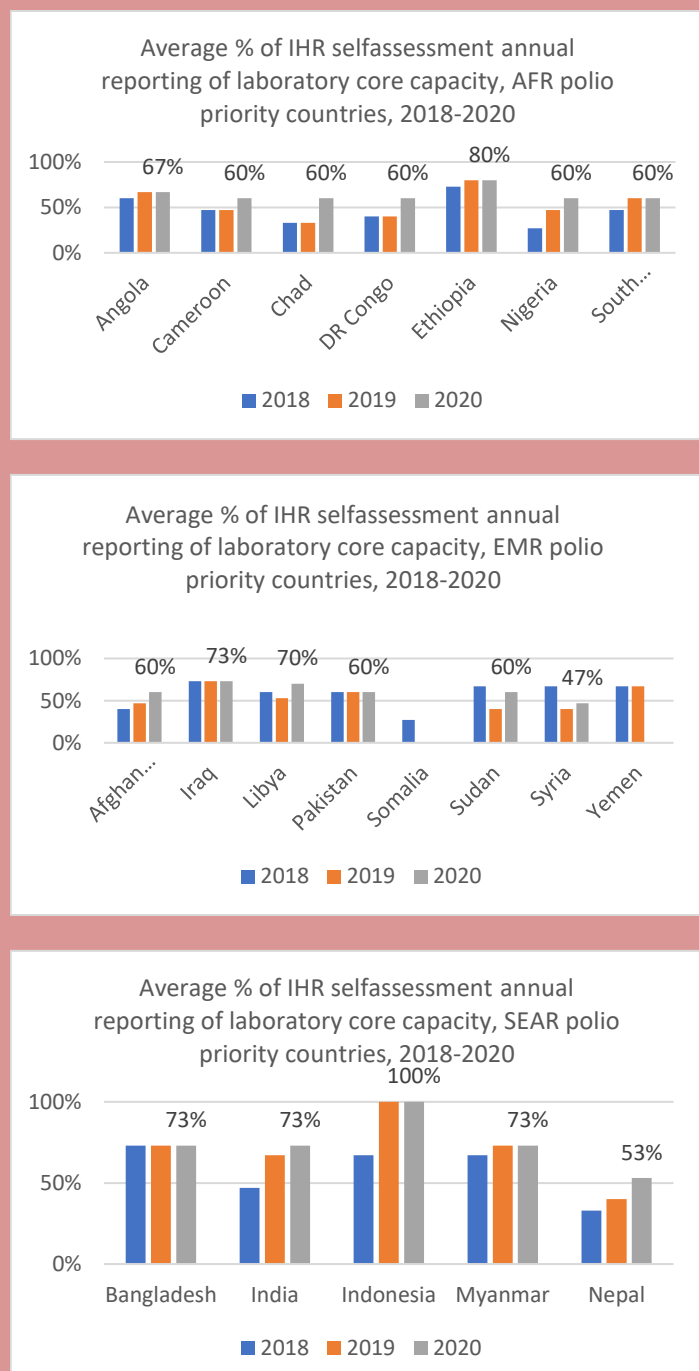
This indicator has increased for almost all polio transition priority countries reporting between 2018 to 2020 (see Figure 13)²⁶.

All polio transition priority countries **of the AFR** reported an increased average score on core laboratory capacity in the period 2018-2020. A particular sharp increase can be seen in 2020 in many AFR countries. All countries reported 60% or above in 2021. The total averages for the 7 AFR countries were 47% in 2018, 53% in 2019 and 64% in 2020²⁷.

In the EMR, two countries reported decreasing laboratory core capacity (Sudan and Syria) whereas the remaining five reported either increased or unchanged capacity across the time period. The total averages for the 7 EMR countries were 58% in 2018, 54% in 2019 and 62% in 2020²⁸.

In SEAR, increases were reported by all countries except Bangladesh. Significant increases were noted in India, Indonesia and Nepal. The total averages for the five SEAR countries were 54% in 2018, 59% in 2019 and 74% in 2020²⁹.

Figure 13. Average % of IHR self-assessment annual reporting of laboratory core capacity, Polio transition priority countries, 2018-2020



²⁶ WHO Polio transition dashboard: <https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard>

²⁷ Note that these are not weighted averages

²⁸ Note that these are not weighted averages

²⁹ Note that these are not weighted averages

Output indicator 3.2. - Average % of IHR self-assessment annual reporting of surveillance core capacity

As with the indicator on self-assessed laboratory core capacity, this self-assessed indicator on surveillance core capacity has also increased or remained the same for almost all polio transition priority countries reporting between 2018 to 2020 (see Figure 14)³⁰.

All AFR polio priority countries, except South Sudan which remained unchanged, reported increasing surveillance capacities through the period 2018-2020. Surveillance capacity was rated high - 80% or above for 6 of the 7 countries. The total averages for the 7 AFR countries were 70% in 2018, 70% in 2019 and 80% in 2020³¹.

In EMR, on the contrary, a decreasing trend was observed between 2018 and 2020 for 3 countries (Afghanistan, Iraq, Syria), 2 countries reported unchanged surveillance core capacity (Libya and Pakistan) and one country reported an increased trend (Sudan). The range was between 60-80% in 2020 among countries that reported. The total averages for the EMR countries were 75% in 2018, 64% in 2019 and 70% in 2020³².

In SEAR, four countries reported high surveillance core capacity of 80% and above and with an increasing trend for two countries. The total averages for the SEAR countries were 75% in 2018, 64% in 2019 and 80% in 2020³³.

Figure 14. Average % of IHR self-assessment annual reporting of surveillance core capacity, polio transition priority countries, 2018-2020



³⁰ WHO Polio transition dashboard: <https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard>

³¹ Note that these are not weighted averages

³² Note that these are not weighted averages

³³ Note that these are not weighted averages

Output Indicator 3.3. - Average % of IHR self-assessment annual reporting of emergency framework core capacity

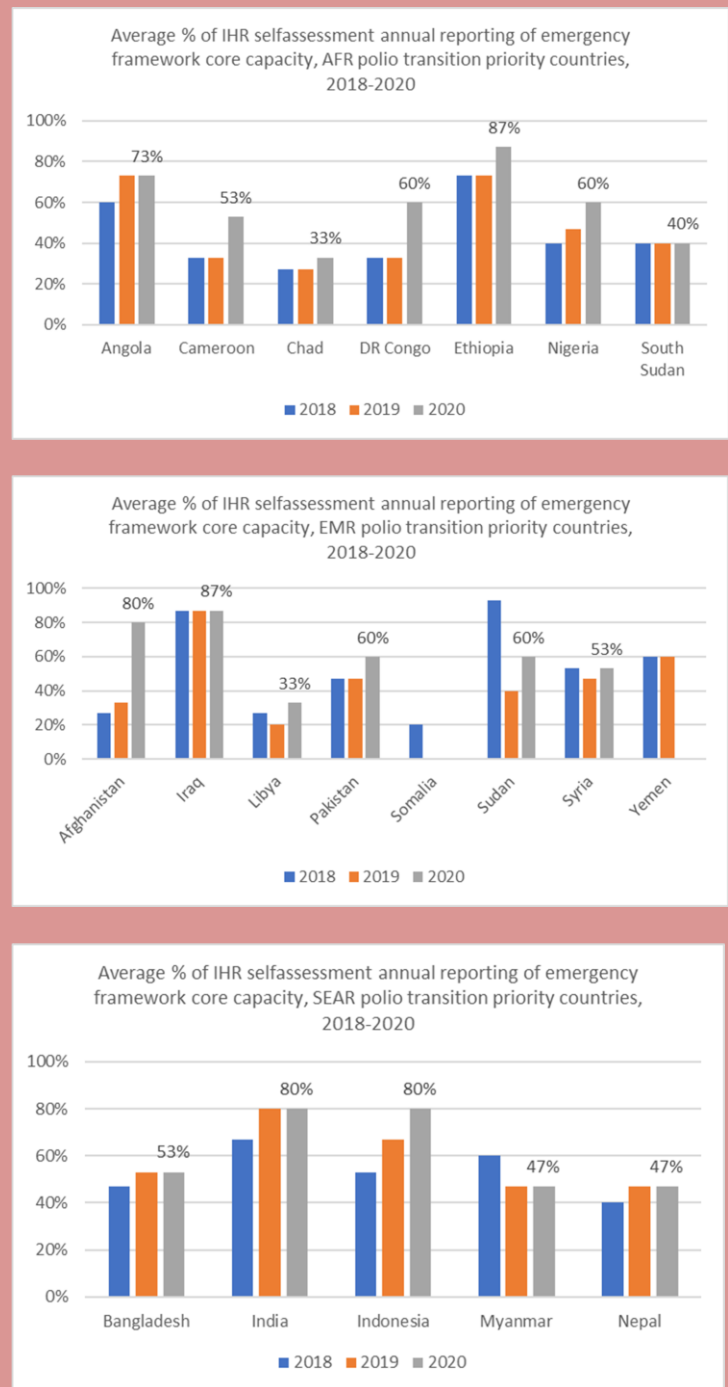
15 polio priority countries reported an increase of emergency framework core capacity or no change between 2018-2020. The increase was especially vivid between 2019 and 2020. This increase is assumed to be related to the strengthening of emergency responses in general during the COVID-19 pandemic. (Figure 15)³⁴.

All polio transition priority countries in the **AFR** except South Sudan reported an increased core capacity on emergency framework especially between 2019 and 2020, with large variations among countries. The largest increase was reported by DRC. The total averages for the AFR countries were 44% in 2018, 47% in 2019 and 58% in 2020³⁵.

In the EMR, the range also varied extensively from 33% reported by Libya in 2020 to 87% reported by Iraq. An increasing trend is noted for countries reporting, except in Sudan. The total averages for the EMR countries were 52% in 2018, 48% in 2019 and 62% in 2020³⁶.

All polio transition countries **in the SEAR** reported an increasing trend except Myanmar during the period 2018-2020. Variations were also present, yet slightly less pronounced in SEAR countries than for the other two regions, ranging from 47% in Myanmar and Nepal to 80% in Indonesia and India 2020. The total averages for the SEAR countries were 50% in 2018, 51% in 2019 and 61% in 2020³⁷.

Figure 15. Average % of IHR self-assessment annual reporting of emergency framework core capacity, polio transition priority countries, 2018-2020



³⁴ WHO Polio transition dashboard: <https://www.who.int/teams/polio-transition-programme/monitoring-and-evaluation-dashboard>

³⁵ Note that these are not weighted averages

³⁶ Note that these are not weighted averages

³⁷ Note that these are not weighted averages

Annex 3: Polio transition workplan 2021/22

The table below shows the workplan for 2021/22 and the status of each proposed revision/activity/deliverable (completed, progressing/on track, and revised timeline) as reported by WHO.

Table 1: Joint corporate workplan 2021-2022 results status (as of January 2022)

Owners/ Responsible Office	Proposed revision/new activity/deliverable	Status 1 Jan 2022
AFR	Polio transition as a standing item on the Regional Committees, to discuss progress made towards the three objectives of the Strategic Action Plan	Completed
AFR	Conduct well-planned in-person or remote country high level advocacy missions to get government and donor commitment to fund essential functions	Progressing / On Track
AFR	Regular engagement with country offices to assess progress and identify support needs arising from country missions and to monitor progress of the implementation of national transition plans	Progressing / On Track
AFR	Progress updates at the Regional Immunization TAGs and other relevant regional platforms	Progressing / On Track
AFR	Polio transition as a standing item on the Regional Committees, including follow up to implement commitments made in this forum	Completed
EMR	Conduct periodic Regional Steering Committee Meetings	Progressing / On Track
EMR	Develop timebound and realistic national transition plans for priority countries of the Region	Revised Timeline*
EMR	Regular engagement with country offices to assess progress and identify support needs	Progressing / On Track
EMR	High level advocacy with priority countries using polio network support to COVID-19 response and recovery as an entry point to highlight opportunities	Revised timeline*
EMR	Progress updates at the Regional Immunization TAGs and other relevant regional platforms	Progressing / On Track
EMR	Polio transition as a standing item on the Regional Committees, and/or include in briefing documents for the RC	Completed
EMR	Rollout of IPHTS in Sudan & Somalia	Progressing / On Track
SEAR	Conduct periodic Regional Steering Committee Meetings	Progressing / On Track
SEAR	Regular engagement with country offices to assess progress and identify support needs	Progressing / On Track
SEAR	High level advocacy with priority countries using immunization and surveillance network support to COVID-19 response and recovery as an entry point to highlight opportunities	Revised timeline*
SEAR	Progress updates at the Regional Immunization TAGs and other relevant regional platforms	Progressing / On Track
SEAR	Include polio transition updates in the briefing documents for the Regional Committee	Completed
PRP/HQ	Submit revised PB 2022/23 budget figures for AFRO Base Polio transition for DG's approval if the revised figures exceed the Approved PB22-23	Completed
PRP/HQ	Develop operational planning guidance for Base polio transition, guide and facilitate the process of operational planning across 3 levels. Coordinate with POL for the 10 AFRO countries Base planning	Completed

Owners/ Responsible Office	Proposed revision/new activity/deliverable	Status 1 Jan 2022
POL/HQ	Support WHO budgeting process by providing regularly updated information on GPEI budget and process for 2022, including planned ramp down in polio free countries.	Completed
CRM/HQ	Identify alternative resources for PB2022/23 base portion	Revised timeline*
PTP/CRM/HQ	Assist resource mobilization initiatives at the global and regional levels. Enhance capacity at regional and country levels.	Progressing / On Track
DDG / IVB	Continue strategic dialogue with Gavi on supporting the transition of polio-funded critical immunization functions, towards strengthening surveillance and immunization capacity in countries.	Revised timeline*
PTP/DDG/HQ	High level advocacy through the DDG's office with the country governments and partners, including incorporating polio transition into strategic dialogues	Progressing / On Track
PTP/HQ	Report to WHO governing bodies (EB/WHA) on progress on the implementation of the Strategic Action Plan, including regular information-sharing in the intersessional phase	Progressing / On Track
PTP/HQ	Organize biweekly technical coordination meetings with HQ departments and Regional Offices	Progressing / On Track
PTP/DCO/POL /HQ	Mainstream polio transition into WHO and GPEI communications strategies and messaging	Revised timeline*
PTP/HQ	Revise and update Polio Transition Programme web structure and work with counterparts to integrate transition messaging across the WHO / GPEI websites	Completed
PTP/HQ/ROs	In collaboration with the regions, document the contributions of the polio network to COVID-19 vaccine rollout	Completed
IVB/HQ	Reflect polio transition needs in the operationalization of IA2030 (regional operational frameworks, ownership/accountability)	Revised timeline*
WHE	Systematically use WHE methodology, tools and platforms for the coordination of outbreak response for cVDPVs and other outbreaks.	Progressing / On Track
PTP/HQ	Finalization of the GPHG methodology and tools for budgeting VPD surveillance, including deployment in 3 pilot countries.	Revised timeline*
PTP/HQ	Regularly update M&E Dashboard on Polio Transition	Progressing / On Track
PHC Special Programme / PTP/HQ	Document evidence of linkages with UHC/PHC	Progressing / On Track
HQ Technical Programmes / PTP/HQ	Provide ongoing technical support to countries to develop and implement transition plans	Progressing / On Track

* Initial timeline was December 2021, which was revised to June 2022.

Annex 4: Evaluation background, methodology and matrix

1. Introduction

A mid-term evaluation of the Strategic Action Plan on Polio Transition (2018-2023) was included as a milestone in the polio transition road map. The timing of the evaluation, to be conducted by the WHO Evaluation Office, was planned for end 2021³⁸. Provision of this evaluation was included in the biennial evaluation workplan 2020–2021 approved by the Executive Board at its 146th session in February 2020³⁹.

1.1 Objectives of the evaluation

The perspective of the evaluation is both outcome-based (assessing the status and implementation of the Action Plan) and forward-looking (proposing any modifications needed to adapt to the changing context). Considering the timing and changes in contextual factors, focus is placed on the formative – forward looking part – to generate learning that can inform relevant discussions and decisions both within WHO and its governing bodies, and Member States.

In line with the request for proposals, the evaluation aims to:

- a) document key achievements, best practices, challenges, gaps, and areas for improvement in the design and implementation of the strategic action plan
- b) identify the key contextual factors and changes in the global public health realm that have affected the development and implementation of the strategic action plan and the roadmap developed in 2018
- c) make recommendations as appropriate on the way forward to enable the successful implementation of the plan.

Five specific objectives of the evaluation are proposed:

1. To assess the extent to which the design of the Action Plan is **relevant and coherent** to achieve its intended purpose and objectives vis a vis the changed context since its inception.
2. To assess the extent to which the Action Plan is on course to **effectively** achieve its desired results along the stipulated monitoring and evaluation (M&E) indicators of the Action Plan. This also includes assessing the structures, frameworks, processes, and mechanisms for implementation of the Action Plan to date; factors and key changes that have affected the achieved results of the plan; monitoring of implementation of the plan and corrective action taken, and an analysis of differential results across WHO regions/countries.
3. To assess the **efficiency** of the implementation and management of the Action Plan including: the dedication and allocation of human and financial resources to implement the plan; the timeliness and reflections on costs incurred
4. To assess the **sustainability** aspects and the extent to which the benefits of the implementation of the Action Plan are likely to continue
5. To provide **forward-looking recommendations** to assist in the possible adaptation of the plan for polio transition in the coming years.

1.2 Evaluation phases

The evaluation was structured in three phases. The inception phase took place from mid-October to mid-November 2021. The data collection phase covered the period from mid-November 2021 to end January 2022. The analysis and reporting phase was conducted in January and March 2022.

³⁸ WHO, The Strategic Action Plan on Polio transition (2018-2023), May 2018, <https://www.who.int/polio-transition/strategic-action-plan-on-polio-transition-may-2018.pdf> (accessed 7 Aug 2021)

³⁹ <https://www.who.int/about/what-we-do/evaluation/resources/evaluation-workplan-2020-2021>

2. Polio transition planning

2.1 The Strategic Action Plan on Polio Transition 2018-2023

The progress to eradicate poliovirus globally is one of the greater success stories of the global health community. At present, only two countries in the world are categorized as endemic - Pakistan and Afghanistan. Beyond achievements related to eradication of poliovirus, the significant global funding for polio eradication programmes over the last decades has supported wider health system strengthening efforts, including immunization, disease surveillance and outbreak responses.

With significant achievements toward the eradication of poliovirus globally, WHO Member States and the Independent Expert Oversight Advisory Committee (IEOAC) emphasized the need for the development and implementation of a polio transition plan, which was developed and presented to the World Health Assembly in May 2018. The Strategic Action Plan on Polio Transition (2018 -2023)⁴⁰ has three key objectives, namely to:

- A. Sustain a polio-free world after the eradication of poliovirus.
- B. Strengthen immunization systems, including surveillance for vaccine-preventable diseases, to achieve the goals of WHO's global vaccine action plan 2011-2020
- C. Strengthen emergency preparedness, detection, and response capacity in countries to fully implement the IHR (2005).

The Action Plan presents an exit strategy for phasing out polio efforts while maintaining and strengthening capacities of wider immunization, surveillance, and outbreak responses. It further aims to sustain a polio-free world by ensuring continued access to safe and effective polio vaccines, a robust surveillance system, and an effective response to any polio event. With expected reduced funding available for polio eradication over the next years, the Action Plan advocates for integration of polio eradication efforts with related programmes on immunization, and other broader health system aspects such as disease surveillance, laboratory networks and outbreak responses. The Action Plan further reiterates that WHO must ensure a reassignment of polio capacities, functions, and assets to core WHO programme areas as part of the transition plan with eventual transfer of responsibility to national governments to sustain essential polio functions.

2.2 Polio transition planning

Many countries have relied, and some still rely, heavily on polio-funded infrastructure to support key health system functions such as vaccine-preventable disease surveillance, immunization information systems, laboratory networks, cold chain, logistics, etc. Sixteen polio transition priority countries⁴¹ together receive over 90% of the GPEI resources. As the world comes closer to the certification of global polio eradication, GPEI resources have gradually decreased. These changes in financing have necessitated countries to proactively plan for a transition away from GPEI resources. To manage these changes successfully, governments must lead the development of national transition plans that determine what polio functions will be integrated into other existing initiatives, and what functions may be prioritized or phased out. Each national plan should address local needs and priorities and may draw on lessons learned from the various pathways to achieving eradication.

The management of polio transition is a country-focused process, and transition planning at country level is essential to its success. Transition planning is a process of analysing the infrastructure, knowledge, and functions of the polio programme, and managing their scale down or transfer to other health programmes, including immunization and health emergency programmes. The process involves

⁴⁰ WHO, The Strategic Action Plan on Polio transition (2018-2023), May 2018, <https://www.who.int/polio-transition/strategic-action-plan-on-polio-transition-may-2018.pdf> (accessed 7 Aug 2021)

⁴¹ An additional 4 countries have been added to the list of priority countries for polio transition mainly because of conflicts and instability.

mapping these assets at country, regional and global levels, and conducting an analysis against national and global health and development needs. Where there is overlap, and where it is possible, assets will be incorporated into alternative health programmes and systems. Integration opportunities between polio eradication and essential immunization activities or primary health care services both in terms of integrated service delivery, and at management and coordination levels, needs to be explored during transition planning, and the risks and benefits needs to be analysed. At present, 20 countries are prioritised for polio transitioning⁴², of which Iraq, Libya, Syria and Yemen were added more recently primarily because of fragility and ongoing conflicts threatening immunization programmes.

2.3 Recent changes in the global health realm

Since the presentation of the Action Plan in 2018, polio eradication has encountered significant challenges with growing numbers of wild poliovirus cases in Pakistan and Afghanistan and worrying outbreaks of vaccine-derived poliovirus affecting more than 20 countries. Consequently, the GPEI has been extended, and financing for polio eradication has intermittently increased⁴³. The discussion of maintaining a focus on polio eradication while planning for transition is ongoing among stakeholders. When levels of essential immunization coverage are examined, it is however clear that poliovirus, whether wild or vaccine-derived, is circulating in low-immunization coverage areas. Measles outbreaks are found in many of the same geographic areas that are witnessing polio outbreaks, implying underserved communities for immunization efforts in general.

The COVID-19 pandemic has temporarily hampered the implementation of some elements of the Action Plan, related to the first two objectives of ensuring a polio-free world and strengthening immunization. Disruption of essential immunization services during the COVID-19 pandemic has been documented in several countries. Polio immunization services have largely been less accessible, and large polio vaccination campaigns have been on pause for periods of time. Over 30 000 polio workers globally were devoted to fighting the COVID-19 pandemic. In 2020, WHO and UNICEF launched an emergency call to action⁴⁴ to regain financing and momentum for polio and measles immunization programmes. However, evidence of repurposed polio assets, infrastructure and competencies have also proved critical to a fast COVID-19 response in several countries and thus contributed to progress on the Action Plan^{45,46}.

New opportunities for countries' polio transition efforts⁴⁷ have evolved and several new strategic plans on immunization, vaccines and polio eradication have been introduced⁴⁸ which presents an opportunity for greater accountability and ownership; however, alignment and coordination need to be ensured in their implementation.

2.4 WHO governance and polio transition governance

WHO governance takes place through the World Health Assembly, which is the supreme decision-making body; and the Executive Board, which gives effect to the decisions and policies of the Health Assembly. The Organization is headed by the Director-General, who is appointed by the Health Assembly on the nomination of the Executive Board. The Director-General has established an Independent Oversight and Advisory Committee (IOAC), for the WHO Health Emergencies Programme (WHE) to provide oversight and monitoring of the development and performance of the Programme

⁴² Afghanistan, Angola, Bangladesh, Cameroon, Chad, Democratic Republic of the Congo, Ethiopia, India, Indonesia, Iraq, Libya, Myanmar, Nepal, Nigeria, Pakistan, Somalia, South Sudan, Sudan, Syrian Arab Republic and Yemen

⁴³ Polio Transition Independent Monitoring Board, Navigating complexity, 2021

⁴⁴ WHO, UNICEF, Emergency Call to Action, 2020

⁴⁵ WHO, Contributions of the Polio Network to COVID-19 response, 2020

⁴⁶ WHO, Polio Transition Planning and Post-Certification, 2020.

⁴⁷ WHO, Poliomyelitis eradication, report by the Director-General, 2021

⁴⁸ Immunization Agenda 2030, A Global Strategy to Leave No One Behind, Gavi's strategy 2021-2025, "Gavi 5.0",

GPEI, Polio Eradication Strategy 2022-2026, 2021

and to guide the Programme's activities. The Committee will advise the Director-General on issues within its mandate and will report its findings to the World Health Assembly⁴⁹.

WHO is the lead planning and implementing body for polio transition. Leadership and oversight of polio transition is being provided by a high-level Global Polio Transition Steering Committee, chaired by WHO's Deputy Director-General.

The Polio Transition Independent Monitoring Board was established at the request of the Polio Oversight Board (POB) in November 2016. In 2019, a new programme of work on monitoring the polio transition process was set out by WHO in the light of organisational changes and slowing of progress on interrupting poliovirus circulation. The new TIMB is smaller in size, and more closely integrated with the Independent Monitoring Board (IMB) which monitors progress in achieving polio eradication⁵⁰.

WHO regional steering committees in Africa, South-East Asia and Eastern Mediterranean regions oversee polio transition in these regions. Key partners for the polio eradication initiative and for polio transition planning include Member States and international partners such as: Gavi, UNICEF, Rotary International, the Bill and Melinda Gates Foundation, World Bank and CDC.

3. Methods

3.1 Overall evaluation approach

The mid-term evaluation is considered both an outcome-based and a process evaluation comprising a mixed method approach. The evaluation was initiated by a comprehensive secondary document review and a review and analysis of existing databases and dashboards. The status of the implementation of the Action Plan, generated from the existing data review, was validated, and complemented by generation of qualitative primary data (key informant interview, group discussions, online survey, country case studies) and secondary quantitative data. This assisted in the exploration of key achievements, identification of best practices, challenges, gaps, areas for improvement and changes in the public health realm that have affected the implementation of the Action Plan and roadmap. Information from both primary and secondary data guided the development of recommendations on the way forward and proposed modifications.

The overall process and methodological approach followed the principles set forth in the WHO evaluation practice handbook and the United Nations Evaluation Group Norms and Standards for Evaluation and Ethical Guidelines for Evaluation. In addition, the approach was guided by the following principles.

3.2 Utilization focused evaluation

In line with the principle of utilization-focused evaluation, developed by Michael Quinn Patton, which stipulates that an evaluation should be judged on its usefulness to its intended users⁵¹, the evaluation was undertaken in a way that fostered a strong sense of engagement in the process and ownership of the outputs. The WHO Evaluation Office managed and guided the evaluation by jointly defining the methodology, facilitating the process, and suggesting key stakeholders to engage in the processes in a way that fostered ownership.

⁴⁹ <https://www.who.int/about/governance>

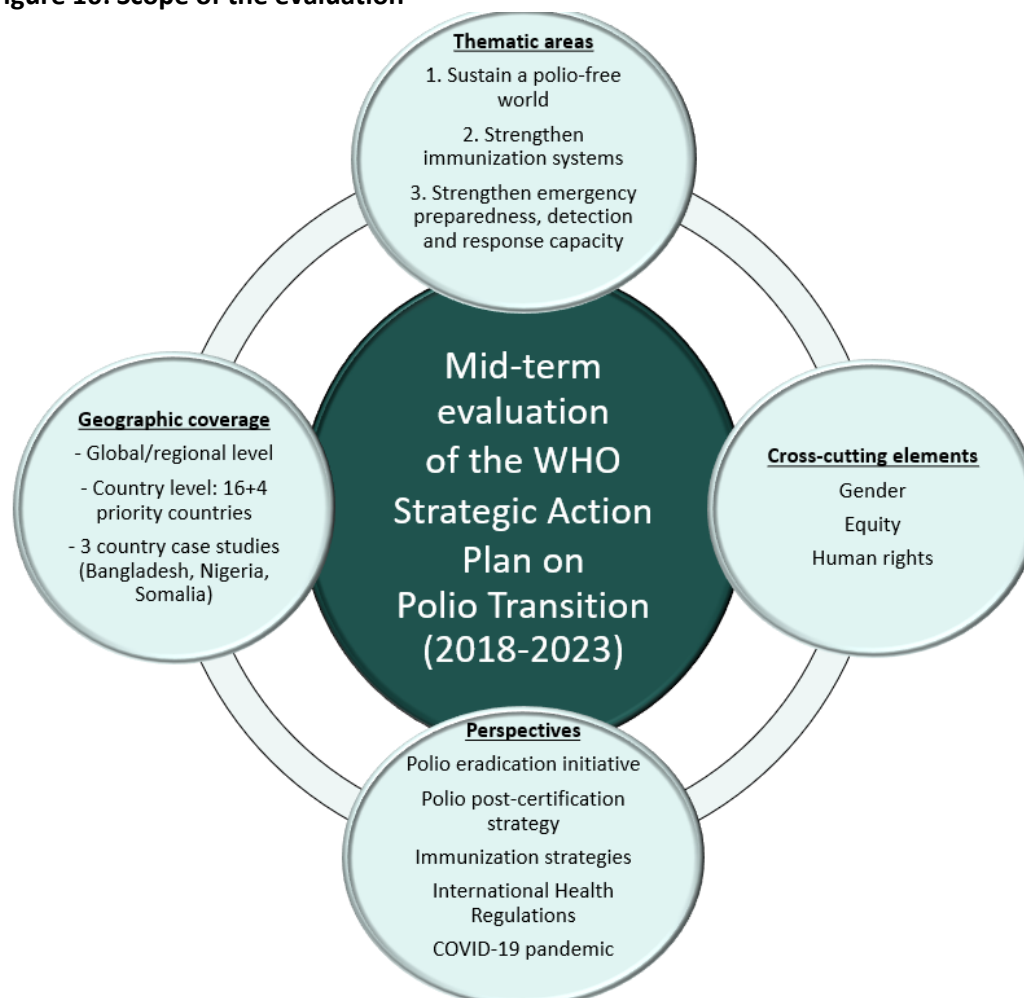
⁵⁰ <https://polioeradication.org/who-we-are/governance-and-structure/transition-imb/>

⁵¹ Patton M., Utilization-Focused Evaluation (U-FE) Checklist, January 2013

3.3 Scope of the evaluation

The figure below captures the different dimensions of the evaluation scope.

Figure 16: Scope of the evaluation



The mid-term evaluation came at a time where the Action Plan had been implemented for about three years and within a context of renewed momentum where numerous internal and external changes had taken place. The evaluation covered progress to date since inception of the Action Plan in May 2018 and generated learnings and recommendations.

Thematic areas – The evaluation focused on the three key objectives of the Action Plan:

- Sustain a polio-free world
- Strengthen immunization systems
- Strengthen emergency preparedness, detection, and response capacity.

Perspectives – Exploring synergies and complexities of all related global strategies remained essential. We therefore reflected on the complementarity, synergies and overlaps of the polio transition planning with the polio eradication initiative, including the revised polio eradication strategy, as well as the polio post-certification strategy, global immunization strategies and international health regulations. Synergies and integration models with COVID-19 efforts at various levels was also assessed.

Cross-cutting elements – Cross-cutting aspects of gender, equity and human rights were assessed to the extent possible throughout the evaluation by adopting WHO’s cross-cutting evaluation strategies

on gender, equity, vulnerable populations, and human rights⁵². The evaluation included an assessment of the extent to which the Action Plan had considered gender mainstreaming in the design, implementation and outcomes of the Action Plan and related recommendations for the future. Equity in health is understood as absence of avoidable or remediable differences among populations or groups defined socially, economically, demographically, or geographically, and the evaluation assessed how and if these aspects were displayed in the design, implementation, and results of the Action Plan.

Geographic coverage – The evaluation was conducted both at global/regional level and at country level including a more in-depth look at three selected priority countries (Bangladesh, Nigeria and Somalia) from each of the three WHO regions where polio transition is prioritised (EMRO, AFRO and SEARO).

Global and regional level

Many polio transition and eradication activities are carried out at the global level, or across multi-country regions, including coordination, planning, quality assessment, research, data analysis, resource mobilization, and communications. The evaluation covered the conceptualisation and implementation of polio transition across all levels of the WHO. At global and regional level this included WHO HQ and the three WHO regional offices (Eastern Mediterranean (EMRO), South-East Asia (SEARO) and Africa (AFRO)). Additional key global partners on polio eradication, post-certification strategy, polio transition planning and immunization were also consulted.

Country level

The evaluation assessed existing country level data, resources, progress, and transition plans for all 20 polio transition priority countries. Through an online survey targeting key stakeholders in 18⁵³ of the 20 Member States the evaluation elaborated on the implementation status, challenges, and opportunities of polio transition across WHO country offices and key government institutions.

Country case studies in Bangladesh, Somalia and Nigeria entailed a more comprehensive review, including a detailed document and data review, key informant interviews and interactive group discussions. Countries were selected based on a review of the literature and data as well as discussions with WHO. We identified three national public health specialists who undertook the field work. The national specialists formed part of the evaluation team and were supported by the four core evaluation team members.

Sampling

It is important to note, that the evaluation did not make use of a randomized, statistically valid sampling processes. Instead, the evaluation followed a strategy of **purposive sampling**. The purposive sample was aimed at selecting specific sources of information, which were as illustrative as possible and allowed for generation of learning and recommendations.

3.4 Data sources and data collection methods

3.4.1 Document review

The document review process began immediately at the beginning of the inception phase and continued throughout the data collection phase. During the preparatory phase of the evaluation, the polio transition team at WHO headquarters uploaded a range of documents into a system of document

⁵² WHO evaluation practice handbook, 2013:

https://apps.who.int/iris/bitstream/handle/10665/96311/9789241548687_eng.pdf;jsessionid=9B180AA9A01A375CAB32D1CC80916FEF?sequence=1

⁵³ Pakistan and Afghanistan were left out from this survey, because the countries are not yet in polio transition mode, instead Key informant interviews were conducted in these two countries

folders stored on Euro Health Group's cloud-based server and accessible to the evaluation team. Through the inception phase, the evaluation team supplemented this database with additional identified relevant documents. The initial document review undertaken during the inception phase was used to refine the evaluation approach, methodology and data collection tools.

Reports and data on the status of the implementation of the Action Plan on polio transition were analysed, validated, and synthesised in more depth during the data collection phase. The evaluation team applied a systematic approach to reviewing a core set of documents most relevant to the evaluation. These documents (over 243 in total) included but were not limited to those found in the bibliography in Annex 6, namely: WHO strategic documents, polio transition progress reports from the World Health Assembly and Executive Board, and peer reviewed articles related to polio transition. The document review also included reports from the Global Certification Commission (from May 2018 onwards), the four Polio Transition Independent Monitoring (TIMB) reports, country level plans and reports. Finally, we referred to global reports and strategies such as the Global Vaccine Action Plan 2011-20, Immunization Agenda 2030 which replaces the Global Vaccine Action Plan, Gavi's strategy 2021-25, WHO/GPEI gender equality strategy 2019-23. In addition, we also analysed information from the polio transition dashboard for information on country level process, HR, budget and finance, data, and indicators.

3.4.2 Key informant interviews and group discussions

Key informants were selected representing the views of the different stakeholder groups identified in the inception phase, with attention to geographical representation and gender balance (see Annex 5). Respondents from the following groups were consulted:

1. WHO staff at the three levels of the Organization
2. UN agencies and other international partners that WHO partnered with on polio (transition) and policy work at global and regional levels.
3. Civil society that WHO had engaged with
4. Key polio stakeholders including GPEI partners.

A total of 150 individuals were interviewed individually or participated in small group discussions, 66% of respondents were men and 34% were women. The composition of the sample is presented below.

Tools developed for the key informant interviews included a semi-structured interview guide that listed a predetermined set of questions or issues that were explored during the interviews. There was flexibility depending on the role and position of respondents, and questions were selected based on the specific informant. The order and the actual wording of the questions were also flexible. Moreover, the interviewer was free to pursue certain questions in greater depth by probing. The advantage of this approach is that it made interviewing of several different persons more systematic and comprehensive by delimiting the issues to be taken up while still allowing for probing and new themes to emerge. Key informant interviews were generally conducted virtually, to some extent also in the three country case studies, due to COVID-19 restrictions. We conducted 75 virtual key informant interviews at global, regional, and country levels. The list of people interviewed is provided in Annex 5. In each of the three country case studies, we conducted interviews with 10-15 key stakeholders, and facilitated two focus group discussions (Table 2).

Table 2. Overview of key informants

WHO			External partners	
HQ level	Regional level	Country level	Global	National
27	20	49	19	35

Table 3. Categories of key informants

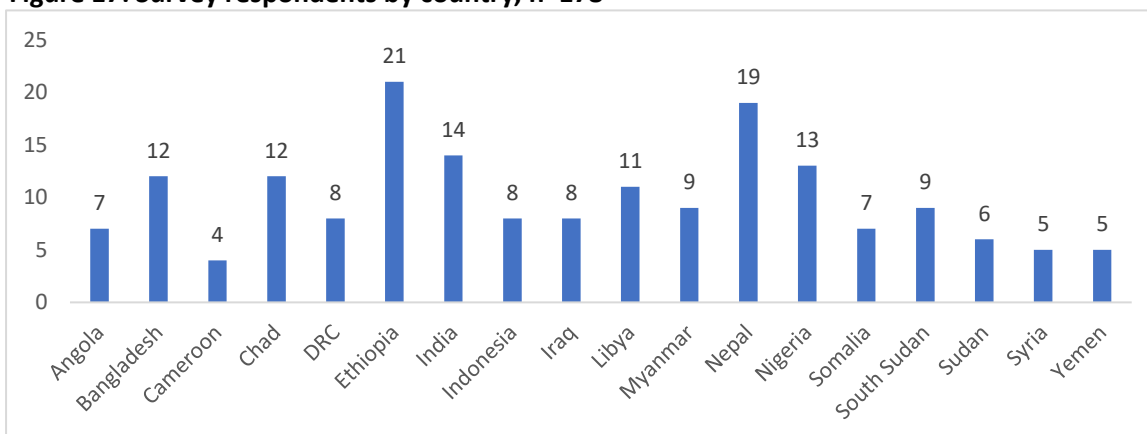
Level	Categories of key informants
Global/ regional level	<ul style="list-style-type: none"> - WHO global staff engaged in polio work (eradication and transition) - WHO staff in other programmes: Health Emergencies, Immunization, Vaccine-preventable diseases, Communicable diseases, Business Operations (HR, resource mobilization and finance), Surveillance, UHC and PHC - WHO senior management at global level, including DDG, and Polio transition steering committee members - Representatives of GPEI from Bill and Melinda Gates Foundation, CDC, Gavi, UNICEF, Rotary - WHO Member States representatives - TIMB members - WHO regional office representatives (EMRO, AFRO, SEARO), including DPMs - Regional polio transition steering committee members - Regional focal points on polio transition
Country level	<ul style="list-style-type: none"> - WHO country office representatives and programme directors, human resources and operations staff, key technical WHO staff working on aspects of polio, health emergency response, immunization, surveillance, communicable diseases - Ministry of Health officials, especially those responsible for immunization programming, emergency response planning, supply chain management, human resources, etc. - Representatives from the Ministry of Finance - Representatives of other UN agencies active in polio work, including UNICEF - Bilateral and multilateral development partners supporting polio, immunization, emergency response - Civil society organisations/ NGOs or community-based organisations active in polio and immunization

3.4.3 Online survey

Given the wide-ranging scope of the evaluation and to ensure the maximum opportunity for participation from the 20 Member States at country level, an online survey was developed. The survey was sent to 310 selected stakeholders across the 18 priority countries (the two endemic countries were not included; rather key informant interviews were conducted). The survey was done complementary to secondary data extracted from the polio transition dashboard and obtained information that was directly relevant to the widest possible range of evaluation questions while balancing the time most respondents were willing to devote to completing this type of survey. The survey consisted of both open and closed-ended questions.

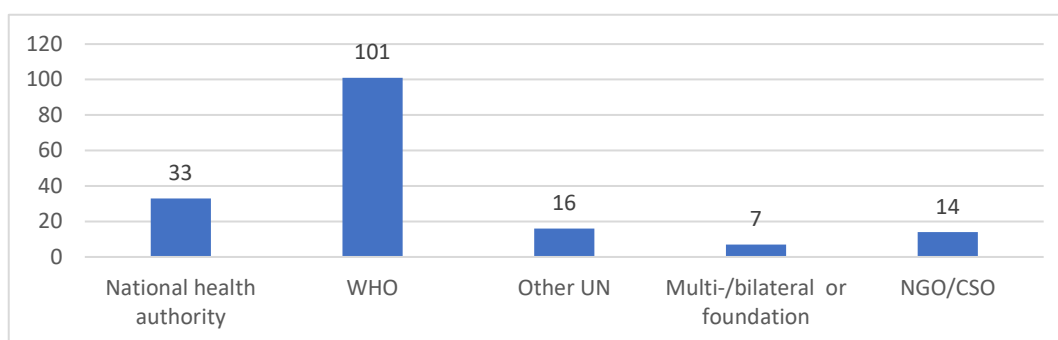
In total, 178 people responded to the survey representing a **57% response rate**. Of the respondents who chose to disclose their gender, 131 were men and 41 women. Ethiopia and Nepal were overrepresented whereas Cameroon only had 4 respondents. The breakdown of survey respondents by country is presented in figure 17 below.

Figure 17: Survey respondents by country, n=178



59% of the respondents were WHO staff, the remaining represented national health authorities (19% and mainly MOH), other UN agencies (9%), NGOs/CSOs (8%) and donors (multilateral, bilateral and foundations, 4%). The breakdown of survey respondents by agency is presented in figure 18 below.

Figure 18: Survey respondents by affiliation, N=171



3.4.4 Country case studies

The country case studies provided an opportunity to triangulate results and explore the evaluation questions with more depth and breadth to generate learnings, best practices, and recommendations. The evaluation included three country case studies and illustrated programme results in a wide range of contexts. The case studies were not intended to present a statistically valid sample and were not representative of the entire population of programme countries. They illustrated how polio transition-related interventions performed in a range of different contexts.

Case study selection

The evaluation team engaged with the WHO Evaluation Office, WHO Polio transition team and the WHO Regional Programme directors during the inception phase and selected the most appropriate, cost-effective, and informative countries for case studies.

The choice of countries considered the following selection criteria:

- At least one polio transition priority country from each of the three WHO polio transition priority regions
- Include at least one country where significant funding gaps could arise due to dwindling GPEI funding
- Include at least one country with recent significant polio outbreaks
- Include at least one country that has not reported recent polio outbreaks to derive possible best practices etc.

- Broad representation of countries with high, medium, and low-level coverage of polio and measles vaccination
- Include at least one “fragile” country

Based on the above, we arrived at the following three countries: Bangladesh, Nigeria, and Somalia.

Data collection in the country case studies

National experts lead the data collection at country level, with virtual oversight by a core evaluation team member. The initial activity was a virtual introductory meeting conducted with national key stakeholders, led by the core team member and the national expert.

The country level data collection took place during a defined two-week period. During this period, a core team member had daily communication with the national consultant as well as real-time quality assurance. This was critical to ensure quality of data collected and to build a shared understanding of analysis of the key findings. All interviews and field observations were documented as detailed interview or observation notes.

The core team member and national expert met virtually to conduct preliminary analysis of the data and discuss and prepare key findings. A virtual debriefing session with WHO country office and selected key stakeholders was held in each country by the core team member and the national expert, to present a slide deck of the preliminary findings.

Data and information collected from the country case studies was documented in an evaluation matrix and presented in three country case study reports (Annexes 11-13). Country case study reports were shared with the country office for review and comments.

3.4.5 Analysis and reporting

Several types of quantitative and qualitative analysis were conducted: trend analysis of quantitative data (e.g., WUENIC, GPEI data, Dashboard indicators etc) and survey quantitative data were performed in excel. Interviews, focus group discussions and online questionnaire qualitative material were subjected to content analysis and was themed, organized, coded, and interpreted to inform findings.

Throughout the data analysis process, the evaluation team ensured validity and reliability through triangulation in compliance with United Nations Evaluation Group (UNEG) standards. The analysis process enabled systematic interrogation of associations between variables and relationships. It also facilitated triangulation of the evidence from the different sources and provided assurance of robustness and data quality. Qualitative data were analysed using content analysis methods. The purpose of content analysis is to organize and elicit meaning from the data collected and to draw realistic conclusions from it. The team leader ensured that data analysis was coherent and consistently guided by the evaluation question and matrix. Evidence from interviews and document reviews was recorded in a standardised template based on the high-level evaluation questions. Findings were analysed through the evaluation framework and a second level analysis of identified themes.

Analysis sought to triangulate quantitative and qualitative data from different sources to address the evaluation questions and sub-questions. The evaluation team triangulated both **across and within categories of data sources**. For example, responses of different key informants at global, regional, and country level were triangulated and ensured that differences of experiences and opinions were not lost to the analysis. Coding all qualitative data and populating the evaluation matrix by sub-question and evaluation question supported the triangulation process. The information obtained through key informant interviews and group discussions within each case study country was also triangulated and compared. Similarly, the results of the online survey were compared and triangulated with the opinions and experiences related by key informants.

3.4.6 Limitations

The priority of the evaluation was to understand and improve the quality of implementation, and the evaluation team therefore chose to focus on progress, key achievements, challenges, best practices, and gaps in implementation of the Action Plan and the roadmap. Impact focuses on long-term effects and is not typically used for a mid-term evaluation. Assessing impact further requires establishing causal inference, and sufficient time and resources for a comprehensive and rigorous impact design which was not the case for this mid-term evaluation.

The scope and depth of the mid-term evaluation of the Action Plan represented a methodological challenge. The evaluation was designed to meet that challenge by using an approach, which has proven successful in other similar evaluations⁵⁴. Nonetheless, the approaches and methodologies used in the design did face some limitations:

- The COVID-19 pandemic was a limitation to the mid-term evaluation. In particular, the national consultants who were in fact on ground in the three specific countries were not able to conduct all interviews face-to-face. Therefore, most interviews were conducted virtually. In addition, the COVID-19 pandemic also presented constraints for the evaluation team overall, as we had to rely on remote data collection methods in general. It also affected the ability of some of the respondents focusing on COVID-19-related work to engage in the evaluation process within the planned timeline especially at country office level. However, despite this, the participation rate for planned interviews was high at 93%, suggesting a high level of interest in the topic.
- Evaluation fatigue arises from intense interaction between the evaluator and the evaluand. We endeavoured to strike the right balance between participation and utility, particularly in Nigeria and Somalia, where we were aware of recent audit activities conducted by WHO HQ.
- It is important to note that for all forms of data collection (KIs, group discussions and online surveys) the evaluation does not make use of a randomized, statistically valid sampling processes. Instead, the evaluation follows a strategy of purposive sampling. The purposive samples are aimed at selecting specific sources of information, which are as illustrative as possible and provides for generation of learning and recommendations. Key informants were thus selected based on their ability to provide rich and diverse opinions and information was triangulated with the document review, data and survey results. Despite consulting with various stakeholders on the selection of key informants, it is possible that bias was introduced through the selection of key informants. Considering the large number of informants for this evaluation (above 300 when also including survey respondents) and that saturation was met with very little new information arising during the last 10-15 interviews, the team however feels confident with the selection of informants for the evaluation.
- The evaluation is prone to social desirability bias, by which respondents may distort information to present what they perceive as a more favourable impression. To mitigate the impact of this bias and stimulate honesty and truthful answers, the interviews were done without recording and ensuring anonymity to all informants.
- Conducting country case studies provided an opportunity to explore the evaluation questions with more depth and breadth to generate learnings, best practices, and recommendations and served as an additional triangulation point. The evaluation encompassed three country case studies to illustrate programme results in a wide range of contexts. The case studies are *not intended to present a statistically valid sample* and are not representative of the entire population of programme countries.

⁵⁴ UNFPA, *End-Line Evaluation of the H4+ Joint Programme, Canada, and Sweden, 2011-2016, 2017*

- The evaluation team feels confident however that these limitations did not seriously weaken the validity of findings. Where different views were found, these were presented as such. Triangulation was applied throughout the evaluation.

Table 4: Evaluation framework matrix

Evaluation Question	Areas of investigation	Data sources
EQ1: What have been the key achievements, best practices, challenges, gaps, and areas for improvement in the design of the Action Plan? (Relevance)		
1.1 To what extent was the design of the Action Plan relevant and appropriate to achieve its intended purpose and objectives and did it respond to the needs and priorities of targeted countries?	<p>Achievements, strengths, best practices, challenges, and gaps in relation to the action plan design, including:</p> <ul style="list-style-type: none"> - Partner engagement in the design of the Action Plan and roadmap including engagement of Member states - Perceived ownership of the Action Plan at global, regional, and country levels - Realistic costing of transition plans and realistic human resource planning - Appropriateness of Action Plan M&E framework and roadmap - Coherence of Action Plan between needs and priorities of targeted countries - Considerations of gender, equity, and human rights in the design of the action plan 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies
1.2 To what extent does the Action Plan align, complement, and link with other related policies, plans, strategies, SDGs and programmatic guidance in a coherent manner (including new global policies introduced after the endorsement of the Action Plan)?	<p>Achievements, strengths, best practices, challenges, and gaps in relation to the action plan design, including:</p> <ul style="list-style-type: none"> - Alignment and complementarity with related international policies, strategies, and guidelines (including former and current policies at a global level), e.g., IHR (2005), immunization, health systems - Action Plan alignment and coherence with context and responsiveness to a changed context, including COVID-19 pandemic 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) <p>KII and Group discussion in 3 selected countries for case studies</p>
EQ2: What have been the key achievements, best practices, challenges, gaps and areas for improvement in the implementation of the Action Plan? (Effectiveness & Efficiency)		
2.1 To what extent is the Action Plan on course to achieving its results across the three objectives of the Action Plan*?. If indicators are not on track what could be the reasons? (Effectiveness)	<p>Achievements, strengths, best practices, challenges, and gaps in relation to the action plan implementation, including:</p> <ul style="list-style-type: none"> - Tracking and completion of activities and outputs as identified in the Action Plan M&E framework (output indicators), and corresponding roadmap, and any differential results across regions/countries/subnational regions/gender? - Development and endorsement status of National transition action plans for 20 polio transition priority countries - Inhibiting/enabling factors for Action Plan implementation? (internal and external) - Engagement and inclusive planning with CSO polio/ immunization partners 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies
2.2 What have been the key contextual factors and changes in the global public health realm that have affected the implementation of the Action Plan and the roadmap developed in 2018?		

Evaluation Question	Areas of investigation	Data sources
2.3 To what extent has implementation of the action plan and roadmap been managed effectively by WHO in a way that leads to successful polio transition in targeted countries based on optimal use of resources? (effectiveness and efficiency)	<p>Achievements, strengths, best practices, challenges and gaps in relation to the management of the action plan implementation, including:</p> <ul style="list-style-type: none"> - Governance, structures and mechanisms in place, including regular monitoring mechanisms and corrective steps undertaken by WHO - WHO coordination and communication with Member states and key stakeholders and across programs and various levels at WHO (polio transition, immunization and Health Emergencies programmes; global, regional, and country levels) - Non-duplication of efforts and synergies in the governance, management and monitoring of the action plan implementation - Risk management and decision making based on new information/contexts and redirection of resources as needs changed - WHO use of financial, human, physical, intellectual, organizational and political capital at its disposal, as well as its partnerships, to achieve results? - Sensitivity to gender, human rights and equity in relation to resource use - Results and milestones achieved within the set timeframe - Plan for scaling down of personnel, tracking progress and providing support services to staff - Visibility, dissemination and communication of polio transition - Process and extent to which WHO has adapted its plans and activities based on recommendations put forward in the TIMB reports - Key resource challenges (human, financial, time) in the implementation 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies
2.4 What other results have been achieved during implementation of the action plan and road map (perceived and unanticipated)?	<p>Achievements, strengths, best practices, challenges and gaps in relation to the action plan implementation, including, but not limited to:</p> <ul style="list-style-type: none"> - Gender, human rights and inclusion aspects: implementation of the action plan informed by gender analysis and undertaken in a gender sensitive manner and with a human rights and equality view across geographic locations and populations 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies
EQ3: Does the implementation of the Action Plan have the potential to create and/or contribute to sustainable changes? (Sustainability)		
3.1 To what extent is the implementation of the Action Plan likely to contribute to sustainable change in relation to the three key objectives of the Action Plan* and on broader outcomes and anticipated impact indicators	<ul style="list-style-type: none"> - Potential enduring results of the implementation of the action plan in relation to the three key objectives of the Action Plan* - Potential enduring results of the implementation of the action plan in relation to Action Plan impact indicators: a polio-free world; reduced under 5 child morbidity and mortality; global health security increased - Potential enduring results of the implementation of the action plan in relation to aspects of gender, human rights and equity 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states)

Evaluation Question	Areas of investigation	Data sources
	<ul style="list-style-type: none"> - External and internal factors and changes that have influenced the ability to sustain results achieved so far 	<ul style="list-style-type: none"> • KII and Group discussion in 3 selected countries for case studies
3.2 To what extent have resources and staff been integrated in a sustainable manner into other health programmes in line with the action plan and what are the indications towards future financing models?	<ul style="list-style-type: none"> - Sustainability of WHO resources transitioned from polio programmes to other programmes and likely trend - Countries' financial self-sufficiency and dedication of budgets and human resources - Commitments of international community to sustain polio transition efforts beyond the expiry of the Action Plan in 2023 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies
EQ4: What recommendations are appropriate on the way forward to enable successful implementation of the Action Plan?		
<p>4.1 What are the main lessons learned regarding implementation of the polio transition planning at global, regional and country levels?</p> <p>4.2 What are the suggested ways forward for polio transitioning efforts at global, regional and country levels?</p>	<ul style="list-style-type: none"> - Main lessons learned identified by the different stakeholders - Possible staging of polio transitioning and other strategies - Recommendations on the way forward for polio transition at global, regional, and country levels including mitigating risk that would derail or delay polio transition and premises that will enhance polio transition 	<ul style="list-style-type: none"> • Document and database review • KIIs with WHO HQ, Regional and country offices • KIIs with key stakeholders • Online survey (in 18 member states) • KII and Group discussion in 3 selected countries for case studies

*(a) sustaining a polio-free world after eradication of poliovirus

(b) strengthening immunization systems, including surveillance for vaccine-preventable diseases, in order to achieve the goals of WHO's Global Vaccine Action Plan

(c) strengthening emergency preparedness, detection, and response capacity in countries to fully implement the International Health Regulations (2005).

Annex 5: List of people interviewed

Name	Title
WHO HQ	
Aidan O’Leary	Director, Polio Eradication Programme
Anand Balachandran	Unit Head, National Action Plans and Monitoring and Evaluation
Ann Lindstrand	Unit Head, Essential Programme on Immunization, Department of Immunization, Vaccines and Biologicals
Arshad Quddus	Coordinator, Detection & Interruption, Polio Eradication Programme
Brian Tisdal	Former Head of Polio Transition Programme
Claudio Politi	Health Economist, Polio Transition Programme
Daniel Walter	Chief Operations Officer, Polio Eradication Programme
Darcy Levison	Policy and Project Management Consultant, Polio Transition Team
David Webb	Director, Office of Internal Oversight Services
Denis Georges Porignon	Senior Adviser, Special Programme on Primary Health Care
Ebru Ekeman	Policy Lead, Polio Transition Programme
Elena Sobre Flotats	Coordinator, Audit, Office of Internal Oversight Services
Fatou Fall	Coordinator, Compliance, Risk Management and Ethics
Heather Ann Monnet	External Relations Officer, Resource Mobilization, Polio Eradication Programme
Imre Hollo	Director, Planning, Resource Coordination and Performance Monitoring
Jamal Ahmed	Team Lead, Surveillance, Labs & Data, Polio Eradication Programme
Janna Riisager	Chief, Budget, Planning, Resource Coordination and Performance Monitoring
Karim Djibaoui	Team Lead, Outbreak Preparedness & Response, Polio Eradication Programme
Kate O’Brien	Director, Immunization, Vaccines and Biologicals
Leen Meulenbergs	Acting Director, Coordinated Resource Mobilization
Mike Ryan	Executive Director, Health Emergencies Programme
Raul Thomas	Assistant Director-General, Business Operations
Scott Pendergast	Director, Strategic Planning and Partnership, Health Emergencies Programme
Sona Bari	Team Lead, Resource Mobilization & Communication, Polio Eradication Programme
Suraya Dalil	Director, Special Programme on Primary Health Care
Tracey Goodman	Team Lead, Life Course and Integration, Essential Programme on Immunization, Department of Immunization, Vaccines and Biologicals
Zsuzsanna Jakab	Deputy Director-General
Other key global and regional stakeholders	
Akhil Iyer	Polio Director, UNICEF, partner representative on the GPEI Strategy Committee
Alice Gilbert	Health adviser, FCDO (UK)
Carol Pandak	Rotary International, partner representative on the GPEI Strategy Committee
Carole Lanteri	Ambassador of Monaco (former Chair of the Polio Partners' Group)
Ellyn Ogden	Worldwide Polio Eradication Coordinator, USAID
Jay Wenger	Team Lead, Bill and Melinda Gates Foundation, partner representative on the GPEI Strategy Committee
John Vertefuille	CDC, partner representative on the GPEI Strategy Committee
Lola Dare	Member of the TIMB - President of CHESTRAD Global, Nigeria

Lori Sloate	Senior Director for Global Health, UN Foundation
Louise Kemp	Attaché Global Health, FCDO (UK)
Mike McGovern	Rotary Member to the POB, Chair, International Polio Plus Committee at Rotary International
Nellie Bristol	Independent Consultant - Senior Associate, Global Health Policy Center, Center for Strategic and International Studies
Niloofer Zand	Senior Advisor, Permanent Mission of Canada
Pavani Ram	USAID, Chief, Child Health and Immunization, office of MCHN at Global Health Bureau
Senjuti Saha	Member of TIMB - Scientist, Child Health Research Foundation (CHRF), Bangladesh
Shalini Rozario	Polio Transition Manager, UNICEF
Sheila Leatherman	Member of TIMB- Professor of Global Health Policy at the Gillings School of Public Health of the University of North Carolina
Stephen Sosler	Gavi, partner representative on the GPEI Strategy Committee.
Tim Petersen	Deputy Director, Bill and Melinda Gates Foundation
WHO EMRO	
Amarnath Das	Regional Compliance and Risk Manager
Eltayeb Elfakki	Medical Officer (Immunization in health emergencies), Immunization, Vaccine-preventable Diseases, Polio Transition, Division of Communicable Disease Control
Hamid Jafari	Director, Polio Eradication, Amman
Maiwand Ayoub Ahmadzai	Technical Officer Polio Eradication, Amman
Naglaa Ahmed	Technical Officer, Focal Point for Polio Transition
Rana Hajjeh	Director, Programme Management
Richard Brennan	Director, Health Emergencies Programme
Yvan Hutin	Director, Division of Communicable Disease Control
WHO AFRO	
Aschalew Dadi	Former AFRO Focal Point for Polio Transition
Awa Achu	Former Planning, Budgeting, Monitoring and Evaluation Officer
Egide Rwamatwara	Senior Human Resources Officer
Joseph Cabore	Director, Programme Management
Usman Abdulmumini	Project Manager, Coordinator of the country focus and coordination unit (in charge of functional review)
WHO SEARO	
Anuruddhe Thushara Ranasinghe	Planning Officer, Programme Planning and Coordination
Nilesh Buddh	Lead, Regional Emergencies, Health Emergency Programme
Pem Namgyal	Director, Programme Management
Sudhir Joshi	Technical Officer, Polio Endgame, Immunization and Vaccine Development, Department of Communicable Diseases
Sudhir Khanal	Technical Officer (Measles), Immunization and Vaccine Development, Department of Communicable Diseases
Sunil Kumar Bahl	Coordinator, COVAX, Immunization & Vaccine Development, Department of Communicable Diseases
Uttara Aggarwal	Technical Officer, (Financial focal Point for Polio Transition), Immunization and Vaccine Development, Department of Communicable Diseases
WHO country offices	
Danish Ahmed	Deputy Team Lead, National Polio Surveillance Project, India
Djamila Cabral	WHO Representative, Angola
Hassan Mohamed Mursal	Operations Officer, Polio Eradication Team, Pakistan

Irfan Elahi Akbar	Polio Team Lead, Afghanistan
Rajesh Sambhajirao Pandav	WHO Representative, Nepal
Mandeep Rathee	Deputy Team Lead, Polio Eradication Team, Afghanistan
Roderico Ofirin	WHO Representative, India
Syed Bilal Shah	Federal Training Officer, Pakistan
Vinod Kumar Bura	Medical Officer, Nepal
Case study – Bangladesh	
Balwinder Singh Chawla	Medical Officer, Immunization System Strengthening , Immunization and Vaccine Development, WHO
Bardan Jung Rana	WHO Country Representative
Jucy Merina Adhikari	Immunization Specialist, UNICEF
Mahmudur Rahman	Former Director, Institute of Epidemiology, Disease Control and Research (IEDCR), Co-Chair NITEC
Mowla Baksh Chaudhury	Programme Manager, EPI, DGHS, MOHFW
Rajendra Bohara	Team Leader, Immunization and Vaccine Development, WHO
Samina Choudhury	Project Management Specialist, Health System Strengthening, USAID
Shah Monir Hossain	Ex Consultant WHO, Prof. (Adjunct) North South University. Former DG at DGHS
Shamsul Haque	Line Director, MNC&AH, Govt, DGHS, HSD, MOHFW
Shamsuzzaman	Associate Professor Public Health, IHT and Former Programme Manager, EPI, DGHS, MOHFW
Tahmina Shirin	Director, IEDCR
Tanbirul Islam	NPO, EPI Surveillance, WHO
Tanveer Hossen	DPM, EPI & Surveillance, DGHS, MOHFW
Focus group discussion 1	Line Director MNC&AH, Director IEDCR, Former Director IEDCR, South-East Asia regional certification commission for Polio Eradication, WHO
Focus group discussion 2	14 key stakeholders from Govt/EPI, INGO/USAID, UNICEF, ICDDR Institute of Health Technology, and WHO
Case study – Nigeria	
Elsie Ilori	Director Surveillance – Nigeria CDC, Government of Nigeria
Focus group discussion 1	12 State Coordinators, WHO
Focus group discussion 2	7 Zonal Coordinators, WHO
Julie Akhidenor	NPO, Human Resource Officer, WHO
Kofi Boateng	Technical Officer, Immunization Programme Operations, WHO
Ngozi Nwosu	National Coordinator/Head, Polio Transition Planning, National Primary Healthcare Development Agency, Government of Nigeria
Rex Mpazanje	Cluster Lead, Health Emergency and Preparedness, WHO
Samuel Bawa	NPO, Disease Surveillance, WHO
Terna Nomhwange	NPO, Surveillance, Immunization Programme Operations, WHO
Walter Kazadi Mulombo	WHO Country Representative
Case study – Somalia	
Abraham Mulugeta	Officer in Charge, WHO-Sub-Office
Ali Bin Break	Acting Polio Team Lead, WHO
Bonny Kyandindi	Polio EPI Team Lead, UNICEF
Farah Abdinoor	Zonal Polio Officer South States, WHO
Fouzia Bano	Acting Chief of Staff, WHO Mogadishu Sub-Office
Habeeb Rita	HR Officer, WHO
Haji Farah	NPO, Zonal Polio Officer, Central States, WHO Mogadishu Sub-Office
Mamunur Malik	WHO Country Representative
Marin Madeo	Health policy advisor (UHC), WHO Mogadishu Sub-Office
Mashrur Mirza	Acting Health Emergencies Team Lead, WHO

Mohammed Ahmed Nur	Pol/Surveillance Officer, FMOH
Mohammed Jama	Advisor to Health Minister, FMOH
Mohammed Shire	Zonal Polio Officer, Banadir, WHO
Monsen Owusu-Aboagye	Polio Focal Point, UNICEF
Mukhtar Shube	EPI Manager, FMOH
Rennatus Mdodo	Surveillance officer, WHO
Tom Mutuku	Operations Officer, WHO
Varun Nigam	Operations Officer, WHO

Annex 6: Bibliography

Key reports and documents

- Addis Declaration on Immunization Commitments
<https://www.afro.who.int/health-topics/immunization/the-addis-declaration-immunization>
- Burkholder B, Wadood Z, Kassem AM, Ehrhardt D, Zomahoun D. *The immediate impact of the COVID-19 pandemic on polio immunization and surveillance activities*, October 2021
- Denis Coulombier. Draft Report on the analysis of the M&E Framework of the Strategic Action Plan, including suggested process indicators
- Dixon MG, Ferrari M, Antoni S, et al. Progress Toward Regional Measles Elimination — Worldwide, 2000–2020, 2021 <http://dx.doi.org/10.15585/mmwr.mm7045a1>
- Gavi's strategy 2021-2025, "Gavi 5.0"
<https://www.gavi.org/our-alliance/strategy/phase-5-2021-2025>
- GPEI 2020 Expenditure Report v3 [Annual expenditure reports](#)
- GPEI, Certification of poliovirus eradication, November 2018
<https://polioeradication.org/polio-today/preparing-for-a-polio-free-world/certification/>
- GPEI, Gender Equality Strategy 2019-23
<https://polioeradication.org/gender-and-polio/gender-and-polio-eradication/>
- GPEI, Polio Eradication and Essential Programme on Immunization, Interim Programme of Work (iPOW) for Integrated Actions in the context of the COVID-19 pandemic, September 2020
<https://polioeradication.org/wp-content/uploads/2020/09/Integration-POW-under-Covid-v2.0.pdf>
- GPEI, Polio Eradication in the Context of the COVID-19 Pandemic: Summary of urgent country and regional recommendations from the Polio Oversight Board meeting of March 24, 2020
- GPEI, Polio Global Eradication Initiative, Polio Eradication Strategy 2022–2026, Delivering on a promise, 2021
<https://polioeradication.org/gpei-strategy-2022-2026/>
- GPEI, Polio Legacy Planning: Guidelines for Preparing a Transition Plan, 2015 <https://polioeradication.org/wp-content/uploads/2016/07/TransitionGuidelinesForPolioLegacy.pdf>
- GPEI, Polio Post-Certification Strategy, 2018
<https://polioeradication.org/polio-today/preparing-for-a-polio-free-world/transition-planning/polio-post-certification-strategy/>
- GPEI, The Polio Endgame Strategy 2019-23,
<https://polioeradication.org/wp-content/uploads/2019/06/english-polio-endgame-strategy.pdf>
- Immunization Agenda 2030, A global strategy to leave no one behind, 2020
<https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030>
- Immunization Agenda 2030, Global Strategy on Comprehensive Vaccine Preventable Disease Surveillance
https://www.who.int/immunization/monitoring_surveillance/burden/vpd/BLS20116_IA_Global_strategy.pdf
- Leslie Roberts, Polio, measles, other diseases set to surge as COVID-19 forces suspension of vaccination campaigns, [disease surge due to vaccination campaign suspension, 2020](#)
- National Primary Healthcare Development Agency, *Nigeria Polio Transition Business Case 2019-2023*, 2018
- Patton M., Utilization-Focused Evaluation (U-FE) Checklist, January 2013
[UFE checklist 2013.pdf \(wmich.edu\)](#)
- RESULTS, *A balancing act: Risk and opportunities as polio and its funding disappears*, RESULTS Australia, November 2017
- TIMB, Polio Transition Independent Monitoring Board, A Debt of Honor, Delivering polio's legacy for those who have suffered and those who have died, Third report, December 2018
<https://www.who.int/polio-transition/third-TIMB-report-dec-2018.pdf>
- TIMB, Polio Transition Independent Monitoring Board, Building stronger resilience, Fifth report, December 2021 <https://polioeradication.org/wp-content/uploads/2022/01/5th-TIMB-report-Building-stronger-resilience-20211231.pdf>
- TIMB, Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021
<https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>
- TIMB, Polio Transition Independent Monitoring Board, One Door Closes Another Opens, Second report, December 2017

https://polioeradication.org/wp-content/uploads/2017/12/Second-TIMB-Report-December-2017-171218-en.pdf
TIMB, Polio Transition Independent Monitoring Board, The end of the beginning, First report, July 2017 https://polioeradication.org/wp-content/uploads/2017/07/TIMB_Report-no1_Jul2017_EN.pdf
TIMB, Progress on Polio Transition in the Polio Transition Independent Monitoring Board, WHO-South-East Asia Region, Transition Independent Monitoring Board meeting, 3-5 November 2020
UNICEF, Tracking the situation of children during COVID-19, May 2021 UNICEF COVID-19 tracker
UNICEF, UNICEF Polio Transition & Post-Certification Management Plan, December 2017 https://polioeradication.org/wp-content/uploads/2018/01/ppg-ws-presentation-nandy-20171208.pdf
WHO AFRO, 2030 Investment case for vaccine-preventable diseases surveillance in the African Region 2020-2030, WHO Regional Office for Africa 2019
WHO AFRO, High-level Regional Consultation on Polio Transition, African Region, Meeting report, January 2020
WHO AFRO, Meeting note – AFRO Polio Transition Steering Committee Meeting, 29 June 2021
WHO AFRO, Overview of progress AFRO Polio Transition Activities – TIMB/GPEI Meeting, November 2020
WHO Angola Polio Transition, 10-15 March 2019
WHO Bangladesh Polio Transition Country Overview, 4-9 November 2018
WHO Cameroon Polio Transition Country Overview, 26 February - 1 March 2019
WHO Chad Polio Transition Country Overview, 25 - 29 March 2019
WHO Contributions of the polio network to the COVID-19 response: turning the challenge into an opportunity for polio transition. Geneva: World Health Organization; 2020
WHO Draft Framework for WHO Polio Transition Strategic Communications, August 2021
WHO EMRO DCD biannual report, key messages matrix, November 2021
WHO EMRO Key areas of progress on polio transition since September 2019/ update Dec 2021
WHO EMRO Polio Transition Steering Committee Minutes of first Meeting, 28 February 2021
WHO EMRO regional working plan on polio transition tracking sheet, December 2021
WHO EMRO, Aide memoire, Naggla Key progress on polio transition in EMRO region, November 2021
WHO EMRO, High-level Regional Consultation on Polio Transition, Eastern Mediterranean Region, Meeting report, September 2019
WHO EMRO, Minutes of the Polio Transition Steering Committee Meeting, 15 June 2021
WHO EMRO, Progress report on eradication of poliomyelitis, Regional Committee for the Eastern Mediterranean Sixty-seventh session Provisional agenda item 3(b) October 2020 Report Oct 2020
WHO EMRO, Update on polio transition in the Eastern Mediterranean Region, ppt. TIMB meeting, November 2021
WHO EMRO, Updates on Polio Transition in the Eastern Mediterranean Region, Dr Rana Hajjeh, Director, Programme Management, 3 November 2020
WHO Ethiopia Polio Transition Country Overview - 11 - 14 December 2018
UN General Assembly, Resolution adopted by the General Assembly on 25 September 2015, Transforming our world: the 2030 Agenda for Sustainable Development, Doc A/RES/70/1, October 2015
WHO GPHG Surveillance Tool Briefing Note October 2021
WHO High-level Regional Consultation on Polio Transition African Region, Geneva 27 January 2020, Meeting report
WHO High-level Regional Consultation on Polio Transition, Eastern Mediterranean Region, Cairo, 4-5 Sep 2019, Meeting report
WHO India Polio Transition Country Overview - 26 November - 4 December 2018
WHO Joint Visit to Ethiopia for polio transition
WHO Member State Information, Session: Polio Transition, 5 May 2021
WHO Mission conjointe de revue polio de la mise en œuvre de la transition en RDC
WHO Myanmar Polio Transition 13-20 October 2018

WHO Polio transition in the context of COVID-19: Global Overview, Ebru EKEMAN, WHO Polio Transition Lead/ TIMB Meeting, 3 November 2020
WHO Polio Transition Steering Committee meeting, 25 November 2020
WHO Polio transition through COVID-19 response: Establishing “integrated public health teams” in priority countries Concept note
WHO PowerPoint from the Polio Transition Steering committee, EMRO, 15 June 2021. Slides 80-92
WHO PowerPoint, Moving forward in a changing Environment: Global overview. TIMB meeting Nov 2021
WHO Principal risks, as of May 2021 Principal risks
WHO Regional Committee for South-East Asia – Report of the Seventy-third Session. New Delhi: World Health Organization, Regional Office for South-East Asia; 2020.
WHO Regional Committee for South-East Asia. Progress reports on selected Regional Committee resolutions. 28 July 2021
WHO Remarks by the Regional Director, Dr Matshidiso Moeti, Polio Eradication and Polio Transition Planning, EB148, 12–18 January 2021
WHO SEARO, 14th Meeting of the South-East Asia Regional Certification Commission for Polio Eradication, 2021
WHO SEARO, Immunization Achievements in South-East Asia, The Platform for Measles Elimination
WHO SEARO, Progress on polio transition in SEARO – TIMB meeting 3-5 November 2020
WHO South Sudan Polio Transition 18-23 February 2019
WHO Steering Committee Terms of Reference (ToR), July 2018
WHO Thirteenth General Programme of Work (GPW 13) WHO’s strategy for the five-year period, 2019-2023 https://www.who.int/about/what-we-do/thirteenth-general-programme-of-work-2019---2023
WHO, Contributions of the Polio Network to COVID-19 response, 2020 https://apps.who.int/iris/bitstream/handle/10665/336261/9789240011533-eng.pdf?sequence=1&isAllowed=y
WHO, COVID-19 strategic preparedness and response plan, February 2021 to January 2022
WHO, Executive Board, EB142/11, Polio transition planning, Report by the Director General, January 2018 https://apps.who.int/gb/ebwha/pdf_files/EB142/B142_11-en.pdf
WHO, Executive Board, EB144/10, Polio Transition, Report by the Director-General, December 2018 https://apps.who.int/gb/ebwha/pdf_files/EB144/B144_10-en.pdf
WHO, Executive Board, Poliomyelitis, EB146/22, Polio transition planning and polio post-certification, Report by the Director-General, December 2019 https://apps.who.int/gb/ebwha/pdf_files/EB146/B146_22-en.pdf
WHO, Executive Board, Poliomyelitis, EB148/23 Polio transition planning and polio post-certification, Report by the Director-General, December 2020 https://apps.who.int/gb/ebwha/pdf_files/EB148/B148_23-en.pdf
WHO, Executive Board, Poliomyelitis, EB150/24 Polio transition planning and polio post-certification, Report by the Director-General, January 2022
WHO, Functional review of the WHO country office Nigeria, findings, and recommendation slide deck
WHO, Global Commission for Certification of Poliomyelitis Eradication (GCC) meet in Geneva to intensify its work on global certification criteria, February 2019
WHO, Global Vaccine Action Plan 2011-2020, https://www.who.int/publications/i/item/global-vaccine-action-plan-2011-2020
WHO, International Health Regulations (2005) Third Edition, 2016 https://www.who.int/publications/i/item/9789241580496
WHO, Joint Corporate Workplan on Polio Transition, July 2021 - June 2022, excel sheet
WHO, Joint Meeting of HQ and SEAR Polio Transition Steering Committee, October 2019
WHO, Member State Information Session, Update on Polio transition, 13 January 2022
WHO, Minutes from Regional Steering Committee meetings on polio transition
WHO, NeXtwork - The role and contribution of the integrated surveillance and immunization network to the COVID-19 response in the WHO South-East Asia Region (Bangladesh, India, Indonesia, Myanmar and Nepal), 2021 https://www.who.int/publications/i/item/9789290228899

WHO, Polio Eradication and Essential Programme on Immunization Interim Programme of Work for Integrated Actions in the context of the COVID-19 pandemic, October 2020 to December 2021
WHO, <i>Polio Transition Plan for Somalia, 2021-2024</i> , 2021
WHO, Polio Transition Steering Committee meeting, 15 May 2020
WHO, Polio Transition Steering Committee meeting, 20 July 2020
WHO, Polio Transition Steering Committee meeting, 25 November 2020
WHO, Polio Transition Steering Committee meeting, 4 March 2021
WHO, Polio transition team presentation to the evaluation team, 15 October 2021
WHO, Polio transition technical coordination meeting minutes - 1 Apr 2021
WHO, Polio transition technical coordination meeting minutes - 1 July 2021
WHO, Polio transition technical coordination meeting minutes - 15 Apr 2021
WHO, Polio transition technical coordination meeting minutes - 15 July 2021
WHO, Polio transition technical coordination meeting minutes - 16 Sep 2021
WHO, Polio transition technical coordination meeting minutes - 17 June 2021
WHO, Polio transition technical coordination meeting minutes - 18 Feb 2021
WHO, Polio transition technical coordination meeting minutes - 21 Oct 2021
WHO, Polio transition technical coordination meeting minutes - 3 June 2021
WHO, Polio transition technical coordination meeting minutes - 30 Sep 2021
WHO, Polio transition technical coordination meeting minutes - 8 Sep 2021
WHO, Progress on the roadmap of the strategic action plan on polio transition
WHO, Report from the Eighteenth Meeting, Global Commission for the Certification of Poliomyelitis Eradication, October 2018
WHO, Report from the Nineteenth Meeting, Global Commission for the Certification of Poliomyelitis Eradication, February 2019
WHO, Report from the Twentieth Meeting of the Global Commission for Certification of Poliomyelitis Eradication, October 2019
WHO, Report from the Twenty-first Meeting of the Global Commission for Certification of Poliomyelitis Eradication, July 2021
WHO, Strategic Action Plan on Polio transition Roadmap progress, no date
WHO, Strategic Action Plan on Polio Transition, May 2018
WHO, Supporting polio transition in countries and globally: A shared responsibility, Stakeholders' meeting summary, Montreux, Switzerland, November 2018
WHO, UNICEF, Emergency Call to Action, November 2020 https://polioeradication.org/wp-content/uploads/2020/11/Call-To-Action-20201105.pdf
WHO, Weekly epidemiological record , 17 September 2021
WHO, WHO Evaluation Practice Handbook, 2013 https://apps.who.int/iris/bitstream/handle/10665/96311/9789241548687_eng.pdf;jsessionid=9B6BFA305014E1777E5C5EE94FE0E03D?sequence=1
WHO, World Health Assembly, A70/14 Add.1. Polio transition planning, Report by the Secretariat, May 2017 https://apps.who.int/gb/ebwha/pdf_files/WHA70/A70_14Add1-en.pdf
WHO, World Health Assembly, A71/9, Polio transition and post certification, Draft strategic action plan on polio transition, Report by the Director-General, April 2018, https://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_9-en.pdf
WHO, World Health Assembly, A72/10, Polio Transition, Report by the Director-General, May 2019, https://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_10-en.pdf
WHO, World Health Assembly, A72/INF./3, Proposed programme budget 2020–2021, Budgetary aspects of poliomyelitis eradication and transition, May 2019 https://apps.who.int/gb/ebwha/pdf_files/WHA72/A72_INF3-en.pdf

WHO, World Health Assembly, A73/13, Poliomyelitis, Polio Transition Planning and Polio Post-Certification, Report by the Director-General, May 2020

https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_13-en.pdf

WHO, World Health Assembly, A74/20, Poliomyelitis, Polio transition planning and polio post-certification, Report by the Director-General, April 2021

<https://polioeradication.org/wp-content/uploads/2021/06/Polio-DG-Report-74-WHA-2021.pdf>

Case study – Bangladesh

Government of the People's Republic of Bangladesh Ministry of Health and Family Welfare, Polio Transition Plan Bangladesh 2016/2017

Government of the People's Republic of Bangladesh, Transition in Action: Bangladesh - A country success story, 13 November 2018, Montreux, Switzerland

Jamie Perin, Amy Mulick, Diana Yeung et al, Global, regional, and national causes of under-5 mortality in 2000–19: an updated systematic analysis with implications for the Sustainable Development Goal, February 2022

Kamal MM, et al; Determinants of childhood morbidity in Bangladesh: evidence from the Demographic and Health Survey, 2011

Matin, A .M, Burden of Childhood Diseases: Bangladesh Perspectives, July 2015

Ministry of Finance, Government of the People's Republic of Bangladesh, Bangladesh Country Report for Triennial Review 2021, 5 February 2021

Sattar, M., Health Sector Governance: An Overview of the Legal and Institutional Framework in Bangladesh, 2021

UNICEF website: <https://data.unicef.org/country/bgd/>

USAID, Bangladesh Demographic and Health Survey 2017–2018, November 2019

USAID, Bangladesh Demographic and Health Survey 2018-2019, October 2020

WHO website: <https://www.who.int/bangladesh>

WHO, Joint National/International Expanded Programme on Immunization and Vaccine Preventable Disease Surveillance Review; Bangladesh, 2018

WHO, Member State Information Session - Update on Polio Transition, January 2022
www.who.int/teams/polio-transition-programme

WHO, Polio Transition Mission Bangladesh 4-9 November 2018 Team: Gyanendra Ghale and Mark Wagner (PTT/HQ), Ebru Ekeman (IVB/HQ), Uttara Aggarwal (IVD/SEARO)

WHO, Progress on Polio Transition in the WHO Southeast Asia Region, Southeast Asia Region Transition Independent Monitoring Board meeting, 3-4 November 2021

World Bank website: <https://www.worldbank.org/en/country/bangladesh>

Case study – Nigeria

Desmarais S., Eradicating polio in Nigeria, 2016 <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/eradicating-polio-in-Nigeria>

Federal Ministry of Health Nigeria, *National Health Account*, 2018

Federal Ministry of Health Nigeria, *National Health Policy*

National Population Commission NPC/Nigeria and ICF, *Nigeria Demographic and Health Survey 2018*, 2019

National Primary Health Care Development Agency, Community Health Influencers, Promoters and Services: Program Launch, 2018 <https://nphcda.gov.ng/special-programmes/chips/>

National Primary Health Care Development Agency, *Nigeria Simulation Exercise Nigeria Polio Transition Planning*, 2016

National Primary Healthcare Development Agency, *Nigeria Costed Polio Transition Plan 2020 -2023*, July 2021

National Primary Healthcare Development Agency, *Nigeria Polio Transition Business Case 2019- 2023*, 2018

Nigeria Strategy for Immunization and PHC System Strengthening 2018 – 2028

Sachiko Ozawa, Samantha Clark, Allison Portnoy, Simrun Grewal, Logan Brenzel, and Damian G. Walker *Return on Investment from Childhood Immunization in Low- And Middle-Income Countries, 2011–20* <https://www.healthaffairs.org/doi/10.1377/hlthaff.2015.1086>

TIMB, *The end of the beginning*, 2017 http://polioeradication.org/wp-content/uploads/2017/07/TIMB_Report-no1_Jul2017_EN.pdf

WHO, *Evaluating the costs and benefits of national surveillance and response systems Methodologies and options*
https://www.who.int/csr/resources/publications/surveillance/WHO_CDS_EPR_LYO_2005_25.pdf

Global Polio Eradication Initiative, *Investment Case*, 2017

WHO, *Guiding principles for immunization activities during the COVID-19 pandemic: interim guidance*, 2020

WHO/UNICEF Estimates of National Immunization Coverages (WUENIC), 2020

World Bank and National Bureau of Statistics (NBS), *2019 Poverty and Inequality in Nigeria*, 2020

Case study – Somalia

Carbone F, Accordi G. The Indian Ocean coast of Somalia. *Marine Pollution Bulletin*. 2000 Jan 1; 41(1-6):141-59.

Pape UJ, Wollburg PR. Estimation of poverty in Somalia using innovative methodologies. *World Bank Policy Research Working Paper*. 2019 Feb 12(8735).

Mbaeyi C, Kamadjeu R, Mahamud A, Webeck J, Ehrhardt D, Mulugeta A. Progress toward polio eradication—Somalia, 1998–2013. *The Journal of infectious diseases*. 2014 Nov 1; 210(suppl_1):S173-80.

Haydarov R, Anand S, Frouws B, Toure B, Okiror S, Bhui BR. Evidence-based engagement of the Somali pastoralists of the Horn of Africa in polio immunization: overview of tracking, cross-border, operations, and communication strategies. *Global Health Communication*. 2016 Jan 1; 2(1):11-8.

World Health Organization, 2004. Report on the 20th intercountry meeting of national managers of the expanded programme on immunization and 16th meeting of the EPI regional technical advisory group, Damascus, Syrian Arab Republic, 30 June-3 July 2003 (No. WHO-EM/EPI/221/E). World Health Organization. Regional Office for the Eastern Mediterranean.

Point AE. ENHANCED HEAVILY INDEBTED POOR COUNTRIES (HIPC) INITIATIVE-DECISION POINT DOCUMENT.

World Health Organization, Global Polio Eradication Initiative. Polio endgame strategy 2019-2023: eradication, integration, certification and containment. World Health Organization; 2019.

Deressa W, Kayembe P, Neel AH, Mafuta E, Seme A, Alonge O. Lessons learned from the polio eradication initiative in the Democratic Republic of Congo and Ethiopia: analysis of implementation barriers and strategies. *BMC public health*. 2020 Dec; 20(4):1-5.

World Health Organization. Regional Working Group Meeting on immunization systems strengthening, health systems strengthening and introduction of new and underutilized vaccines, New Delhi, 22–23 February 2016. World Health Organization. Regional Office for South-East Asia; 2016.

Rodriguez DC, Neel AH, Mahendradhata Y, Deressa W, Owoaje E, Akinyemi O, Sarker M, Mafuta E, Gupta SD, Salehi AS, Jain A. The effects of polio eradication efforts on health systems: a cross-country analysis using the Develop–Distort Dilemma. *Health policy and planning*. 2021 Jun; 36(5):707-19.

Ahmed Z, Ataullahjan A, Gaffey MF, Osman M, Umutoni C, Bhutta ZA, Dalmar AA. Understanding the factors affecting the humanitarian health and nutrition response for women and children in Somalia since 2000: a case study. *Conflict and Health*. 2020 Dec; 14(1):1-5.

Warsame A, Handuleh J, Patel P. Prioritization in Somali health system strengthening: a qualitative study. *International health*. 2016 May 1; 8(3):204-10.

World Health Organization. Programme Budget Performance Assessment: 2018–2019. World Health Organization. Regional Office for South-East Asia; 2020.

Danovaro-Holliday MC, Gacic-Dobo M, Diallo MS, Murphy P, Brown DW. Compliance of WHO and UNICEF estimates of national immunization coverage (WUENIC) with Guidelines for Accurate and Transparent Health Estimates Reporting (GATHER) criteria. *Gates Open Research*. 2021 May 10; 5(77):77.

Khan F, Datta SD, Quddus A, Vertefeuille JF, Burns CC, Jorba J, Wassilak SG. Progress toward polio eradication—worldwide, January 2016–March 2018. *Morbidity and Mortality Weekly Report*. 2018 May 11; 67(18):524.

Rodriguez DC, Neel AH, Mahendradhata Y, Deressa W, Owoaje E, Akinyemi O, Sarker M, Mafuta E, Gupta SD, Salehi AS, Jain A. The effects of polio eradication efforts on health systems: a cross-country analysis using the Develop–Distort Dilemma. *Health policy and planning*. 2021 Jun; 36(5):707-19.

Matlin SA, Haselgrave M, Told M, Piper JE. The Global Polio Eradication Initiative. Global Health Centre, the Graduate Institute of International and Development Studies; 2017.

Losey L, Ogden E, Bisrat F, Solomon R, Newberry D, Coates E, Ward D, Hilmi L, LeBan K, Burrowes V, Perry HB. The CORE Group Polio Project: an overview of its history and its contributions to the global polio eradication initiative. *The American journal of tropical medicine and hygiene*. 2019 Oct; 101(4 Suppl):4.

Arale A, Lutukai M, Mohamed S, Bologna L, Stamidis KV. Preventing importation of poliovirus in the horn of Africa: the success of the cross-border health initiative in Kenya and Somalia. *The American journal of tropical medicine and hygiene*. 2019 Oct; -preventable disease surveillance: analysis and evaluation of comprehensive multi-year plans (cMYPs) for immunization. *Vaccine*. 2018 Oct 29; 36(45):6850-7.

Annex 7: Alignment with other related international policies, strategies and guidelines

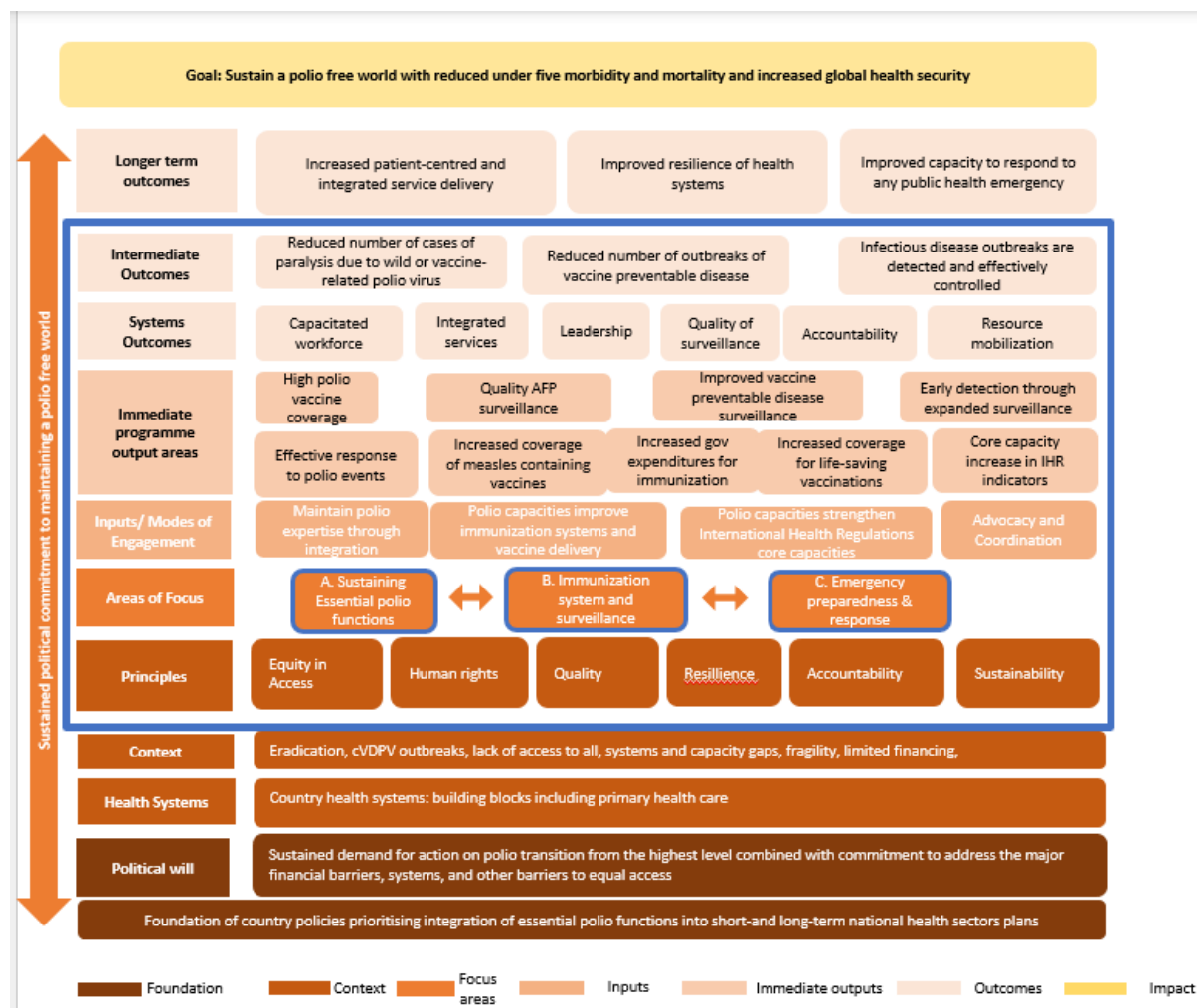
Other policies/strategies		Strategic Action Plan on Polio Transition		
	Objective A: Sustaining a polio free world after eradication	Objective B: Strengthening immunization systems	Objective C: Strengthening emergency preparedness	
Immunization Agenda 2030	-	IA2030 is the vision and strategy for vaccines and immunization for the next decade and has a strong focus on equity and delivering immunization services integrated with primary health care and aims to advance sustainable progress against multiple vaccine-preventable diseases.	-	
Comprehensive VPD Surveillance Strategy	-	<p>The strategy promotes the development of high-functioning surveillance systems: Such surveillance systems will generate high quality, usable data to strengthen national immunization programmes, inform vaccine introduction decision making, and fortify timely and effective detection and response to VPD and other infectious disease outbreaks, safeguarding national and global health security.</p> <p>The global comprehensive VPD surveillance strategy is coordinated with other regional and global strategies and plans. The transition plan is listed under disease-specific activities together with GPEI.</p>	-	
Gavi 5.0	Goal 1: Introduce and scale up vaccines	Goal 2: Strengthen health systems to increase equity in immunization	-	
Investment case for VPD Surveillance in the African Region	-	The investment case for VPD surveillance aims to reinforce Member States ownership, strengthen coordination, and articulate VPD surveillance within a broader disease surveillance system. It also highlights a holistic approach to better consider community-based surveillance, preventive promotive services, zoonotic diseases and vector control, but also the role played by non-medical determinants such as information, education or climate change.	-	

	Objective A: Sustaining a polio free world after eradication	Objective B: Strengthening immunization systems	Objective C: Strengthening emergency preparedness
Thirteenth General Programme of Work 2019-2023 (GPW13)	<p>WHO will continue its undivided commitment to the eradication of polio, making sure that the world is kept polio-free and that gains made with the implementation of polio eradication activities are not lost in the post-polio transition process.</p> <p>WHO will work with partners and Member States to sustain and enhance vaccination coverage, ensuring that no child is left behind, even in the most remote and inaccessible areas. Along with the elimination of high-burden communicable diseases, eradication of polio and guinea worm disease will remain key priorities, with significant efforts directed to post-eradication planning.</p>	<p>Functions essential to maintain a polio-free world must be sustained. Polio programmes have helped to strengthen health systems and these wider gains must be maintained as the polio programme is being ramped down. Essential functions currently supported by polio funds should be integrated into a broader health effort (for example, integrated disease surveillance, outbreak preparedness and response systems and poliovirus containment will need to be absorbed into other biosafety and bio security efforts).</p> <p>WHO will continue to play a critical role in the execution and coordination of these functions, particularly in States with fragile or failed health systems where substantial polio resources were deployed and contributed to strengthening the overall health system.</p>	
Interim Programme of Work for Polio / Essential Immunization (iPOW)	<p>“Integration” and “transition” are interrelated, but separate processes.</p> <p>The ultimate objective of polio transition is to shift functions and funding from GPEI to country governments in a gradual and phased manner, with support from WHO and UNICEF until governments are ready to take over.</p> <p>The activities identified in the iPOW can help deliver that support in a more efficient, coherent, and integrated manner, and help move more smoothly towards a successful transition.</p>		
COVID-19 Strategic Preparedness and Response Plan (SPRP)	<p>In the COVID-19 strategic preparedness and response plan there is not mentioned of tapping into the massive polio resources – it only says: “It will be crucial in 2021 and beyond that the drive to deploy COVID-19 vaccines is anchored in and strengthens existing immunization programme capacities.” This is a missed opportunity.</p>		
Global Polio Eradication Initiative (GPEI) Strategy 2022-26	-	<p><u>Strategic objective 2:</u> Generate vaccine acceptance through context-adapted community engagement that reduces refusals and increases community commitment to child immunization.</p> <p><u>Strategic objective 5:</u> Enhance detection and response through sensitive surveillance that provides the programme with critical information for action.</p>	<p><u>Strategic objective 1:</u> Create urgency and accountability to generate greater political will by re-envisioning the GPEI’s relationship with governments and systematizing political advocacy.</p>

	Objective A: Sustaining a polio free world after eradication	Objective B: Strengthening immunization systems	Objective C: Strengthening emergency preparedness
			Strategic objective 3: Expedite progress through expanded integration efforts with a broader range of partners in immunization, essential health care and community services.
Sustainable Development Goals (SDGs)	Strategic objective 4: Improve frontline success through changes to campaign operations and outbreak response operations, including the recognition and empowerment of the frontline workforce. Goal 3. Ensure healthy lives and promote well-being for all at all ages: 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births. 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all		
GPEI The Polio Endgame Strategy 2019-23	Goal 1: - Interrupt transmission of all wild poliovirus. - Stop all circulating vaccine-derived poliovirus outbreaks	Goal 2 (partly): - Contribute to strengthening immunization and health systems <i>to sustain polio eradication</i> (also goes under Objective A). - Ensure sensitive poliovirus surveillance.	Goal 2 (partly): - Prepare and respond to outbreaks.
WHO Functional reviews	Objective: Ensure better alignment of workforce and operations of WHO to host countries' health situation, needs and priorities. A true reflection of the relevance and timeliness of WHO's Transformation agenda, to realign its resources and efforts to the evolving health priorities of the country, embracing an integrated service delivery model and responding to Nigeria's quest to achieve universal health coverage in a challenging environment, populous nation and with limited resources.		

	Objective A: Sustaining a polio free world after eradication	Objective B: Strengthening immunization systems	Objective C: Strengthening emergency preparedness
International Health Regulations	-	-	The Action Plan objective C contributes directly to implementing the IHR 2005

Annex 8: Evaluation Theory of Change for polio transition



The Theory of Change (ToC) above was drafted by the evaluation team to serve as potential inspiration for a recommended co-created ToC by key partners and stakeholders.

Annex 9: Interview guides

Mid-term evaluation of the Strategic Action Plan on Polio Transition 2018-2023 Interview guide for KIIs

Dear key informant

Euro Health Group has been contracted to conduct a mid-term evaluation of the implementation of the Strategic Action Plan on Polio transition. The mid-term evaluation of the Strategic Action Plan on Polio Transition comes at a time where the Action Plan has been implemented for about three years and within a context of renewed momentum where numerous internal and external changes have taken place. In line with the request for proposals, the evaluation aims to:

d) document **key achievements**, best practices, challenges, gaps, and areas for improvement in the design and implementation of the strategic action plan;

e) identify the key **contextual factors and changes** in the global public health realm that have affected the development and implementation of the strategic action plan and the roadmap developed in 2018; and

f) make **recommendations** as appropriate on the way forward to enable the successful implementation of the plan

We plan to conduct interviews with key stakeholders as part of the evaluation. We were informed that you would be an important key informant for us to talk to for this evaluation. The interview is expected about 1 hour. Thank you for your willingness to talk to us.

Introduction (5 minutes)

1. **Present** yourself and the interview team and let the informant present himself/herself
 2. Explain the background and **objective** of the Mid-term Evaluation of the WHO strategic action plan on Polio transition
 3. Explain that the information provided to the team will be kept **anonymous**, and potential citations will not be traceable to any person or their details.
 4. Ask if a recording of the interview would be acceptable, the recording will be deleted as soon as comprehensive notes have been extracted
 5. Before we go into the interview, it would be helpful if you could introduce yourself and what position that you have?
 6. Do you have any questions at this stage?
-

Interview guide (55 min)

The interview will be guided by the following four broad questions:

- What have been the key achievements, best practices, challenges, gaps and areas for improvement in the **design** of the Action Plan? (Relevance)
- What have been the key achievements, best practices, challenges, gaps and areas for improvement in the **implementation** of the Action Plan? (Effectiveness & Efficiency)
- Does the implementation of the Action Plan have the potential to create and/or contribute to **sustainable** changes? (Sustainability)
- What **recommendations** are appropriate on the way forward to enable the successful implementation of the Action Plan?

Specific questions are detailed below and will be selected based on relevance of the informant in question. Not all specific questions shall be posed to each informant and additional probing questions may appear as deemed relevant.

Specific Questions:

Design of the Global Action Plan on polio transition (Relevance)

1. **How familiar** are you with the Strategic Action Plan on Polio transition developed in 2018?
2. In your view, how and **to what extent were key partners engaged** during the design of the action plan (in 2017/2018) including Member States? (probe whether that engagement was beneficial or not)
3. From your perspective, **what level of ownership is there at WHO HQ**, regional and country levels for polio transition? (Probe: and among other stakeholders including national stakeholders, global partners?)
4. Do you think the action plan has **any gaps or limitations and if so which?**
5. What is your opinion on **working simultaneously with polio transition and polio elimination, is this the right strategy?**

Probing questions:

- In your view, **how coherent is the Global Action Plan to the needs, priorities and policies of your country?**

Effectiveness of the implementation of the strategic action plan on polio transition

6. In your opinion, what are the **main achievements and results of polio transition** to date? (At HQ, regional and country level as relevant)
7. In your view, has the process to develop **national polio transition plans** gone smoothly in priority countries? To what extent have these plans **been implemented** in the countries?
8. From your perspective, which **factors have enabled or hindered** the implementation of the action plan? (Internal and external factors, including COVID-19, vaccine derived outbreaks, etc.)

9. In your view what have been the **most significant challenges** in the implementation of the action plan on polio transition?
10. To what extent have polio activities been **integrated** with those of immunization programmes or health emergency programmes? (or other programmes)
11. To what extent have polio transition and polio eradication efforts **affected gender, equity and human rights issues** (across geographic locations, socio-economic groups and gender). were such issues considered in planning and if so, is there documentation?
12. In your opinion how well has WHO **coordinated and communicated** polio transition with Member States and key stakeholders and/or across programmes and various levels at WHO (polio transition, immunisation and Health Emergencies programmes; global, regional, and country level)?
13. Overall how would you rate (on a scale of 1 to 5 with 5 being the best) the **WHO management of polio transition implementation**? What have been the strengths and what have been the gaps?
14. From your perspective, how do you find the **collaboration between global partners including GPEI members and WHO** in relation to polio transition efforts? (e.g. Division of roles, responsibilities, synergies, etc.) (Mainly for Global/Regional levels)
15. In your view what has been the **benefit of the TIMB** and to what extent have recommendations been implemented? (probe who has the responsibility for implementation of recommendations) (Mainly for Global/Regional levels)

Probing questions for polio staff:

- Could you comment on activities to contain poliovirus and whether these have gone well?
- How well is surveillance of polio (AFP surveillance) performing in countries? Has the development of laboratories benefited the surveillance of other diseases in the countries that you work with?

Efficiency of the implementation of the strategic action plan on polio transition

16. What have been the **key resource challenges** (human, financial, time) in the implementation of the action plan?
17. Do you think that the **existing polio transition governance, structures and mechanisms** in place are efficient? And why?
18. To what extent have WHO **used resources at its disposal to achieve results** (financial, human, physical, intellectual, organizational and political capital)

Probing questions for WHO Management, HR, finance, planning and operation staff:

- How well has the transition to the changing role of staff gone? Which challenges have you observed and how were they handled? How has the abolition of GPEI staff posts e.g. in WHO AFRO been addressed - specific to gaps, loss of expertise etc?
 - What are the funding gaps expected for sustaining essential polio functions in a more horizontal and integrated manner? How are these being addressed in planning and operations, in e.g. HRH resource mapping?
-

Sustainability of the implementation of the strategic action plan on polio transition

19. To what extent is the implementation of the Action Plan likely to contribute to **sustaining a polio free world**?

20. To what extent is the implementation of the Action Plan likely to contribute to **sustainable results in regard to strengthening immunization systems and surveillance** of vaccine preventable diseases? (probe: In your opinion, to what extent have resources and staff been integrated in a **sustainable manner** into other health programmes in line with the action plan)

21. To what extent is the implementation of the Action Plan likely to contribute to **sustainable results** in regard to **strengthening emergency preparedness, detection and response** capacity in countries?

22. Which **external and internal factors** and changes have influenced the ability to sustain results achieved so far?

23. How do you see **countries' financial self-sufficiency** and dedication of budgets and human resources to sustain essential polio functions?

24. What are the indications toward **future financing levels and models**?

Opportunities, best practices and recommendations on polio transition

25. In your opinion, what are the future **opportunities** for polio transition implementation?

26. Do you think there have been any **unanticipated results** in implementation of the strategic action plan? If so, what are these?

27. Do you think there have been any **best practices** in implementation of the strategic action plan? If so, what are these?

28. Do you have any **recommendations on the way forward** to enable the successful implementation of the plan?

Annex 10: Online survey questionnaire

Introduction

Euro Health Group (EHG) has been commissioned by the WHO Evaluation Office to conduct a mid-term evaluation of the implementation of the Strategic Action plan on Polio Transition 2018-2021. The emphasis of the evaluation is to help WHO look forward strategically, and the findings and recommendations will be used to inform the way forward to enable successful implementation of the transition plan.

As part of the evaluation, EHG is conducting this online survey of selected key stakeholders to explore polio transition activities in your country. To encourage openness and honesty, all responses will be treated in confidence and responses will not be traced to individual respondents. The survey will be analysed entirely by the evaluation team, data will be anonymized, and analysis of the results will be presented in aggregated form only.

We thank you in advance for your time in completing the survey which should take approximately 20 minutes. We request that you submit the completed survey by 20 December 2021.

If you have any difficulties in completing this survey or if have any questions, please contact Mrs. Vera Nedic at vnedic@ehg.dk

* 1. In which country are you located? Please select from the following drop-down menu:

- | | |
|---|----------------------|
| <input type="checkbox"/> Angola | Libya |
| <input type="checkbox"/> Bangladesh | Myanmar |
| <input type="checkbox"/> Cameroon | Nepal |
| <input type="checkbox"/> Chad | Nigeria |
| <input type="checkbox"/> Democratic Republic of Congo | Somalia |
| <input type="checkbox"/> Ethiopia | South Sudan |
| <input type="checkbox"/> India | Sudan |
| <input type="checkbox"/> Indonesia | Syrian Arab Republic |
| <input type="checkbox"/> Iraq | Yemen |

* 2. Please indicate which type of organization, professional body, or institute you work for.

- | | |
|--|---|
| <input type="checkbox"/> National health authority | <input type="checkbox"/> Multilateral or bilateral development agency or foundation |
| <input type="checkbox"/> WHO | <input type="checkbox"/> Non-governmental organization / civil society organisation |
| <input type="checkbox"/> Other United Nations Organisation | <input type="checkbox"/> Other |

Other (please specify)

* 3. To which gender do you identify?

* 4. Are you familiar with the national polio transition plan?

- ☐ Very familiar with the plan and content
- ☐ Know that it exists but not familiar with the content
- ☐ Not familiar at all
- ☐ No plan exists

5. To what extent do you agree with the following statements:

	Strongly disagree		Neither agree nor disagree		Disagree	disagree	Agree		Strongly agree
Stakeholders were appropriately consulted in the formulation of the national polio transition plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The objectives of the national transition plan correspond to your country's health needs and priorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The national polio transition plan aligns and complements national policies, plans, strategies and programmatic guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is ownership of the national polio transition plan in the organization you represent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The national polio transition plan presents realistic costing for sustaining essential polio functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The national polio transition plan presents realistic human resource planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* 6. To what extent do you agree that polio transition activities in your country have contributed to:

	Strongly disagree			Neither agree nor disagree	Disagree	disagree	Agree	Strongly agree
Improved immunization programme.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integration of polio assets, tools and knowledge into immunization programme.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integration of acute flaccid paralysis surveillance with other disease surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintaining zero (or low level of) polio cases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Strengthened health emergency preparedness and response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved government commitment to sustaining essential polio functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhanced engagement with civil society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response to the COVID-19 pandemic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

* 7. To what extent do you agree that the following factors have presented challenges to implementation of polio transition activities:

	Strongly disagree			Neither agree nor disagree	disagree	Agree	Strongly agree
Outbreaks of vaccine derived polio cases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited government commitment to sustaining essential polio functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited government ability to absorb costs of essential polio functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited progress to integrate acute flaccid paralysis surveillance with surveillance of other diseases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited integration of polio assets, tools, and knowledge into other health programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unclear guidance from WHO on polio transition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unclear roles and responsibilities for polio transition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COVID-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<div></div>						

* 8. To what extent do you agree with the following statements:

	Strongly disagree			Neither agree nor disagree	Disagree	disagree	Agree	Strongly agree
Appropriate governance, structures and mechanisms for polio transition are in place at global level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate governance, structures and mechanisms for polio transition are in place at regional level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly disagree		Neither agree nor disagree	disagree	Agree	Strongly agree
Appropriate governance, structures and mechanisms for polio transition are in place at country level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WHO monitoring mechanisms (M&E framework and reporting) for polio transition are <u>adequate</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WHO effectively coordinates with countries around polio <u>transition</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polio transition contributes to expanding and strengthening vaccine-preventable disease surveillance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polio transition contributes to expanding and strengthening vaccine-preventable disease laboratories	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polio transition has strengthened integration with other WHO programmes at country level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polio transition has strengthened integration with other national health programmes at country level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A plan for scaling down or transitioning of WHO personnel is in place at country office level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WHO has provided support services to staff affected by polio transition at country <u>level</u>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resources for polio transition have been adapted to changing needs in your country	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 9. To what extent do you agree that the following factors have presented key resource challenges for polio transition:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Human resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time factors (timing/time limitations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

* 10. Are there resource mobilization plans in place in your country to seek the funds needed to sustain essential polio functions?

- ☐ Yes, and WHO has supported the national government to implement such resource plans
- ☐ Yes, and WHO has NOT supported the national government to implement such resource plans
- ☐ No
- ☐ Don't know

* 11. Is there duplication in the management and monitoring of polio transition

- ☐ Yes
- ☐ No
- ☐ Don't know

If you answered "Yes", please describe where, and among whom and at which level (global, regional, country, other):

* 12. To what extent do you agree that WHO utilizes the following resources efficiently to manage polio transition:

	Strongly disagree			Neither agree nor disagree	Disagree	disagree	Agree	Strongly agree
Financial resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Political influence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convening/coordination skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please elaborate:

* 13. To what extent do you agree that potential funding gaps as a result of the scale down of GPEI funding would affect the following:

	Strongly disagree			Neither agree nor disagree	Disagree	disagree	Agree	Strongly agree
Surveillance of vaccine preventable disease programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunization programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health emergency outbreak response	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please elaborate:

* 14. To what extent do you agree that the government has sufficient resources to sustain essential polio functions after 2023 for:

	Strongly disagree			Neither agree nor disagree	Disagree	disagree	Agree	Strongly agree
Surveillance of vaccine preventable disease programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Immunization programmes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health emergency outbreak response	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 15. To what extent do you agree that donor support is needed to sustain essential polio functions after 2023 for:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Surveillance of vaccine preventable disease programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Immunization programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health emergency outbreak response	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* 16. To what extent do you agree that equity in access to polio vaccination exists across the following:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Geographically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Across social economic groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Across gender lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify):

* 17. To what extent do you agree that:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Resources and staff previously working on polio eradication have been integrated in a sustainable manner into other WHO programmes.					<input type="checkbox"/>
Resources and staff previously working on polio eradication have been integrated in a sustainable manner into other national health programmes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* 18. To what extent do you agree that implementation of polio transition has contributed to sustainable changes in:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Sustaining a polio-free world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strengthening immunization systems, including surveillance for vaccine-preventable diseases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strengthening emergency preparedness, detection, and response capacity in countries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing under 5 child morbidity and mortality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increasing global health security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 19. In your opinion has WHO supported the country sufficiently in the implementation of the national polio transition action plan?

- ☐ Yes
- ☐ No
- ☐ Don't know

Please elaborate:

* 20. Please provide examples of factors and changes that have or will influence the ability to sustain polio transition results achieved so far.

* 21. Please provide recommendations and suggested ways forward for polio transition at country level.

Annex 11: Country case study report, Nigeria

Table of contents

1	<u>Introduction</u>	68
1.1	<u>Background</u>	68
1.2	<u>Situation and context – Nigeria</u>	68
1.2.1	<u>Socio-economic overview</u>	68
1.2.2	<u>Health sector overview</u>	69
1.2.3	<u>Disease burden including polio, vaccine-preventable diseases, and recent trends</u>	69
1.2.4	<u>Evidence of ongoing polio transition activities</u>	71
2	<u>Methods and approach</u>	71
2.1	<u>Document review</u>	71
2.2	<u>Key informant interviews and focus group discussions</u>	72
2.3	<u>Online survey</u>	72
2.4	<u>Data analysis and quality assurance</u>	72
2.5	<u>Limitations</u>	73
3	<u>Findings</u>	73
3.1	<u>EQ1: Achievements, best practices, challenges, gaps in the design of the Nigeria Costed Polio Transition Plan (relevance)</u>	73
3.2	<u>EQ2: Achievements, best practices, challenges, gaps in the implementation of the Nigeria Costed Polio Transition Plan (effectiveness and efficiency)</u>	74
3.3	<u>EQ3: Potential to create and/or contribute to sustainable changes (sustainability)</u>	83
4	<u>Conclusions, lessons learned and future considerations</u>	84
4.1	<u>Conclusions and lessons learned</u>	84
4.2	<u>Considerations regarding future priorities</u>	85

Table of figures

Figure 1: Confirmed WPV1 cases Nigeria 2005-2018	69
Figure 2: Coverage levels (%) and infants un-vaccinated and under-vaccinated for DTP, 2019	70
Figure 3: Polio transition milestones	75
Figure 4: cVDPV2 infected and reporting states/LGAs; Jan - Dec 2021	78
Figure 5: Distribution of polio HR by states and current areas of deployment	80
Figure 6: Polio human resource transition scenario planning	81
Figure 7: Reasons of choosing Scenario 4 for polio transition	81
Figure 8: Cost of polio transition 2020-23	82

Table of tables

Table 1: Performance and output indicators	75
Table 2: Cases of cVDPV2 recorded between 2018 - 2021 in Nigeria	77
Table 3: Polio human resource projection	82
Table 4: GPEI funding 2016 and 2019	83

Acknowledgements

The evaluation team would like to thank the Executive Director/CEO of the National Primary Healthcare Development Agency, Dr Faisal Shuaib, for providing excellent leadership, guidance, and oversight throughout the development of the Nigeria Costed Polio Transition Plan.

We are also grateful to Dr Ngozi Nwosu, the National Coordinator, and the members of the Polio Transition Technical Task Team (PT4) for providing useful insights. Many thanks to Mrs Elsie Ilori from the Nigeria Centres for Disease Control and Prevention for her insightful contributions throughout this mid-term evaluation exercise of the Strategic Action Plan on Polio Transition.

We also wish to acknowledge the technical support and guidance provided by colleagues from WHO Nigeria Country Office, especially the WHO Country Representative Dr Walter Kazadi Mulombo, Dr Terna Nomhwange, Dr Kofi Boateng, Dr Ahmed Kedr and the Zonal and State coordinators for their kind participation and useful contributions to this evaluation exercise

Lead country case study consultant: Suleiman Oshioke Yakubu

Abbreviations and acronyms

Action Plan	Strategic Action Plan on Polio Transition (2018-2023)
AFP	Acute Flaccid Paralysis
CHIPS	Community health influencers, promoters, and services
cVDPV2	Circulating vaccine-derived poliovirus
EOC	Emergency operations center
EQ	Evaluation question
FGD	Focus group discussion
Gavi	The Global Alliance for Vaccines and Immunization
GDP	Gross Domestic Product
GPEI	Global Polio Eradication Initiative
IPV	Inactivated polio vaccine
LGA	Local government areas
MCV1	One-dose measles containing vaccine
MCV2	Two-dose measles containing vaccine
NCDC	Nigeria Centre for Disease Control
NERICC	National Emergency Routine Immunization Coordination Centre
nOPV2	Novel oral polio vaccine type 2
NPHCDA	National Primary Health Care Development Agency
OPV	Oral polio vaccine
PHC	Primary health care
PT4	Polio Transition Technical Task Team (PT4)
SDG	Sustainable Development Goal
UN	United Nations
UNEG	United Nations Evaluation Group
WCAR	Western and Central African region
WHO	World Health Organization
WPV	Wild poliovirus

1 Introduction

1.1 Background

The mid-term evaluation of the Strategic Action Plan on Polio Transition (2018-2023) (hereafter named the Action Plan) is one of the milestones in the polio transition road map and it was included in the biennial evaluation workplan 2020–2021 approved by the Executive Board at its 146th session in February 2020⁵⁵.

Objectives

The perspective of the evaluation is both outcome-based (assessing the status and implementation of the Action Plan) and forward-looking (proposing any modifications needed to adapt to the changing context). Considering the timing and changes in contextual factors, focus is placed on the formative – forward looking part – to generate learning that can inform relevant discussions and decisions both within WHO and its governing bodies, and Member States.

In line with the request for proposal, the evaluation aims to:

- Document key achievements, best practices, challenges, gaps, and areas for improvement in the design and implementation of the Action Plan;
- Identify the key contextual factors and changes in the global public health realm that have affected the development and implementation of the Action Plan and the roadmap developed in 2018; and
- Make recommendations as appropriate on the way forward to enable the successful implementation of the plan.

Evaluation questions

The overarching evaluation questions (EQ) were as follows:

- EQ1: What have been the key achievements, best practices, challenges, gaps, and areas for improvement in the design of the Action Plan? (Relevance)
- EQ2: What have been the key achievements, best practices, challenges, gaps, and areas for improvement in the implementation of the Action Plan? (Effectiveness and Efficiency)
- EQ3: Does the implementation of the Action Plan have the potential to create and/or contribute to sustainable changes? (Sustainability)
- EQ4: What recommendations are appropriate on the way forward to enable successful implementation of the Action Plan?

As part of this evaluation the evaluation team conducted three country case studies in Nigeria, Bangladesh, and Somalia. The country case studies were intended to explore in more detail the experiences of implementing polio transition at country level to generate learning. Findings were furthermore used as triangulation points for the overall evaluation report. This country case report represents the main findings, conclusions, and considerations for the way forward on polio transition in Nigeria.

1.2 Situation and context – Nigeria

1.2.1 Socio-economic overview

Nigeria is a federal republic comprising 36 states and a Federal Capital Territory. Within these states are 774 local government areas (LGA) and 9 565 wards. The states are grouped into six geo-political zones: South-South, South-East, South-West, North-East, North-West and North-Central. The

⁵⁵ <https://www.who.int/about/what-we-do/evaluation/resources/evaluation-workplan-2020-2021>

population of Nigeria is currently estimated at 200 million⁵⁶, with an estimated birth cohort of 7.3 million children.

According to the World Bank, Nigeria is classified as a lower-middle-income country due to the many social and economic challenges facing the nation. Between 2014-2016, the country's Gross Domestic Product (GDP) dropped by 29% due to fluctuations in global oil prices, coinciding with a period of economic recession. In 2018, 40% of Nigerians (83 million people) lived below the poverty line, while another 25% (53 million) were vulnerable. The number of Nigerians living below the international poverty line is expected to rise by 12 million in 2019–23, highlighting a steady decline in the population's standard of living⁵⁷.

1.2.2 Health sector overview

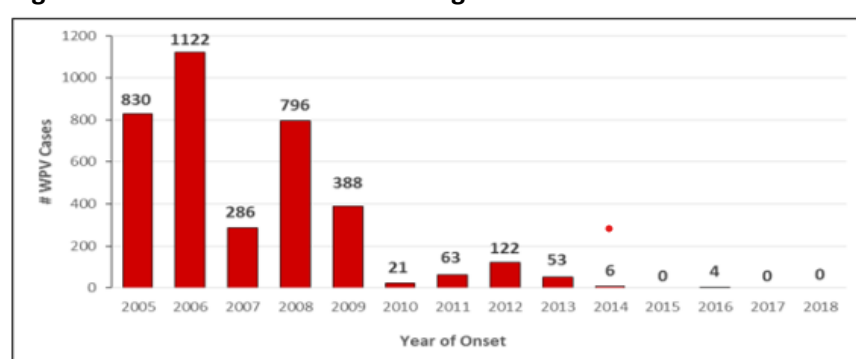
In Nigeria, there are over 10 000 health facilities, publicly and privately owned, that are spread across all 774 local government areas in the 36 states and federal capital territory. Important challenges hindering the delivery of public health services and development in Nigeria include poor government funding of the health sector, insufficient number of functional primary health care (PHC) facilities, inadequate and inequitable distribution of qualified human resources for health, poor literacy levels and insecurity⁵⁸.

1.2.3 Disease burden including polio, vaccine-preventable diseases, and recent trends

The key health indicators in Nigeria such as maternal and infant mortality are lower than the Sub-Saharan African average and the country is not on track to achieve most of the health-related sustainable development goals (SDGs) by 2030. That said, there has been a steady, but slow, decline in infant mortality rate from 87 per 1 000 live births in 1990 to 67 per 1 000 and under-five mortality rates from 193 per 1 000 live births in 1990 to 132 in 2018. Despite the reduction in mortality rates, Nigeria is not on target to achieve SDG 3.2, to reduce neonatal mortality to ≤ 12 per 1 000 live births and under-five mortality to ≤ 25 per 1 000 live births by 2030⁵⁹.

On 25 August 2020, Nigeria and consequently Africa, received its polio-free certification from the African Regional Certification Committee on polio, after more than 48 months without a reported case of a wild poliovirus 1 (WPV1) isolate in the country.

Figure 19: Confirmed WPV1 cases Nigeria 2005-2018



Source: National Primary Healthcare Development Agency, 2018

⁵⁶ UNICEF, Immunization Regional Snapshot 2019, West and Central Africa, 2019, <https://data.unicef.org/wp-content/uploads/2020/04/1-Immunization-Profile-WCAR-2019.pdf>

⁵⁷ 2019.pdf" \h <https://data.unicef.org/wp-content/uploads/2020/04/1-Immunization-Profile-WCAR-2019.pdf>

⁵⁸ Federal Ministry of Health - Nigeria, National Health Account (NHA), 2017, <https://www.health.gov.ng/doc/FINAL-VERSION-NHA-2017.pdf>

⁵⁹ UNICEF, Tracking progress on Goal 3: Ensure healthy lives and promote well-being for all at all ages, 2018 <https://www.un.org/sustainabledevelopment/health/>

Circulating vaccine-derived poliovirus (cVDPV2) outbreaks in Nigeria

Following the polio-free certification, the country began to experience ongoing pockets of cVDPV2 outbreaks across the states. Between 2018 and 2021, multiple cVDPV2 isolates were identified as shown in Table 1.

Introduction of novel oral polio vaccine type 2 (nOPV2)

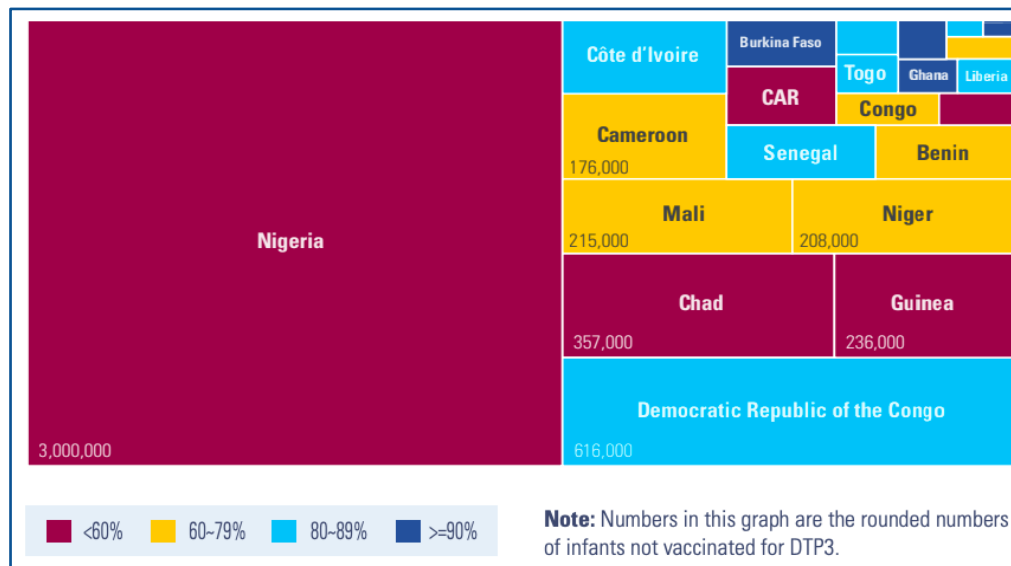
The nOPV2 was made globally available to better address the evolving risk of cVDPV2. The vaccine is a modified version of type 2 monovalent OPV (mOPV2), which clinical trials have shown provides comparable protection against poliovirus while being more genetically stable and less likely to be associated with the emergence of cVDPV2 in low immunity settings⁶⁰.

Starting in March 2021, Nigeria became the first country in the world to use nOPV2 to tackle an outbreak, vaccinating 7 million children in six states with reported cVDPV2⁶¹.

Immunization service provision including polio response

The Government of Nigeria has made tremendous efforts towards strengthening the immunization service delivery programme, however, the progress made is far from the desired global goal of protecting every child from the risk of contracting vaccine-preventable diseases in line with the Global Immunization Agenda 2030⁶². For example, Nigeria has the highest number of unimmunized children in the Western and Central African region (WCAR) and one of the highest in the world. As of 2018, there were about 3 million infants not vaccinated with the diphtheria, tetanus toxoid and pertussis vaccine (DTP3) in Nigeria which accounted for 54% of the total WCAR unimmunized and under-vaccinated surviving infants (see Figure 2)⁶³.

Figure 20: Coverage levels (%) and infants un-vaccinated and under-vaccinated for DTP, 2019



Source: UNICEF Immunization Regional Snapshot, West and Central Africa, 2019.

⁶⁰ Global Polio Eradication Initiative (GPEI), Novel Oral Polio Vaccine type 2 (nOPV2) granted EUL recommendation, 13 November 2020. https://polioeradication.org/wp-content/uploads/2022/01/GPEI_cVDPV2-nOPV2_Factsheet_13-Jan-2022-EN.pdf

⁶¹ WHO Regional Office for Africa, Pursuing the endgame: novel polio vaccine rollout in Africa, 26 October 2021, <https://www.afro.who.int/news/pursuing-endgame-novel-polio-vaccine-rollout-africa>

⁶² World Health Organization, Immunization Agenda 2030: A global strategy to leave no one behind, 2021. <https://www.who.int/docs/default-source/immunization/strategy/ia2030/ia2030-document-en.pdf>

⁶³ UNICEF, Immunization Regional Snapshot 2019, West and Central Africa, 2019, <https://data.unicef.org/wp-content/uploads/2020/04/1-Immunization-Profile-WCAR-2019.pdf>

However, various interventions have been introduced by the National Emergency Routine Immunization Coordination Centre (NERICC) such as the integrated medical outreach programme, routine immunization supportive supervision, programme assessment for performance management and action, lot quality assessments, SMS texting in the NERICC 18 high priority states etc. As a result of these interventions, there was an increase of routine immunization coverage from 33% to 71% between 2017 and 2020 and the number of unimmunized children was reduced from 3.3 million in 2017 to 2.8 million in 2020⁶⁴.

1.2.4 Evidence of ongoing polio transition activities

Polio transition activities began in Nigeria prior to the development of the global Action Plan in 2018 and under the guidance of GPEI. Since the Ebola epidemic in 2014, more than 60% of polio human resources and assets support other programme areas like measles, yellow fever, cholera, malaria, meningitis, Ebola, monkeypox and disease surveillance and outbreak response, including most recently the response to COVID-19. Disease surveillance and notification officers and other polio surveillance officers are currently engaged in surveillance for other disease entities like COVID-19, measles, and yellow fever⁶⁵.

A functional review was planned and conducted in most polio transition priority countries, including Nigeria, to identify means of better aligning the workforce and operations of WHO to host countries' health situation, needs and priorities. The process was undertaken to assist the WHO country office to align to global transformation and new organizational strategy processes⁶⁶. In the ten high-risk countries of AFR, the plan was to match polio staff to positions identified through the functional reviews⁶⁷. For the remaining 37 polio low-risk countries in AFR, WHO headquarters is providing bridge funding for transitioned functions as mentioned earlier whilst donor conversations for the remainder of the biennium are ongoing.

The functional review showed the "relevance and timeliness of WHO's Transformation agenda, to realign its resources ... embracing an integrated service delivery model and responding to Nigeria's quest to achieve universal health coverage."
- Informant

2 Methods and approach

The evaluation used a mixed-methods approach combining qualitative and quantitative methods for data collection and analysis. This involved a document and data review, conducting key informant interviews, focus group discussions (FGDs), and administration of an online survey.

At the onset, there was a planning meeting with relevant WHO country office staff. The purpose of the meeting was to allow full comprehension of the evaluation design and map out all possible and potential sources of data for each objective of the assignment and identify key informants.

2.1 Document review

A systematic approach was applied to review different documents (secondary sources) relevant to the evaluation, these include but are not limited to:

- The Nigeria Costed Polio Transition Plan
- Nigeria Polio Transition Business Case Document

⁶⁴ World Health Organization, United Nigeria: WHO and UNICEF estimates of immunization coverage: 2019 revision https://www.who.int/immunization/monitoring_surveillance/data/nga.pdf

⁶⁵ Nigeria Strategy for Immunization and PHC System Strengthening [NSIPSS] 2018 – 2028

⁶⁶ WHO Thirteenth General Programme of Work, 2019-2023

⁶⁷ Ibid

- Peer-reviewed articles related to polio transition
- Polio Financial Resource Requirements (2019 – 2023 and 2020 – 2023)
- Report on Simulation Exercise Nigeria Polio Transition Planning
- Other relevant documents (from Nigeria Centre for Disease Control (NCDC), EOC, National Emergency Maternal and Child Health Intervention Centre, NERICC, BHCPF, CHIPS, etc.).

2.2 Key informant interviews and focus group discussions

The document review was supplemented by collecting primary data through key informant interviews and focus group discussions undertaken in December 2021. Key stakeholders from the national and sub-national levels involved in the polio transition, including senior government officials from the National Primary Health Care Development Agency (NPHCDA) (1), Nigeria Centre for Disease Control (NCDC) (1), WHO (26), and members of the Polio Transition Technical Task Team (PT4) (1) were interviewed.

Eight key informant interviews were conducted, the majority virtually, with a semi-structured interview guide containing predetermined questions related to the design and implementation of the polio transition plan. In addition, two focus group discussions were conducted virtually and consisted of small relatively homogeneous groups with people of similar backgrounds and experience working on polio transition activities at both national and sub-national levels (12 state coordinators in FGD1 and 7 zonal coordinators in FGD2). Participants were asked to reflect on the questions asked by the interviewers, provide their own comments, listen to what others in the group had to say and react to their observations. The list of informants is available in Annex 5.

2.3 Online survey

An online survey was administered to 19 possible respondents of which 13 responded, all representing WHO Nigeria country office. Open and closed end questions were included in the survey. The open-ended questions were mainly used as qualitative material and as triangulation points.

2.4 Data analysis and quality assurance

Several types of quantitative and qualitative analysis were conducted. Trend analysis of quantitative data (e.g., WUENIC, GPEI data, Polio transition Dashboard indicators, online survey data) were analysed using Excel. Interviews, focus group discussions and qualitative data from the online questionnaire were subjected to content analysis and were organized and tagged by themed and interpreted to inform findings.

Throughout the data analysis process, the evaluation team ensured validity and reliability through triangulation in compliance with United Nations Evaluation Group (UNEG) standards. The team leader ensured that data analysis was coherent and consistently guided by the evaluation questions and corresponding matrix. Evidence from interviews and document reviews was recorded in a standardised matrix template based on the evaluation questions. The information obtained through key informant interviews and group discussions was triangulated with results of the online survey and the document review.

The analysis process enabled systematic interrogation of associations between variables and relationships. It also facilitated triangulation of the evidence from the different sources and provided assurance of robustness and data quality. At every stage of the evaluation, quality assurance was guaranteed.

2.5 Limitations

The COVID-19 pandemic was the main limitation to this case country study. Many key informants were overwhelmed with responding to the COVID-19 omicron variant in the country by the time of data collection, which delayed the process and limited the number of interviews within the set timeframe. Due to COVID-19 restrictions, most interviews and FGDs were conducted virtually. Interpretation of report findings should take into consideration the relatively low number of key informants. Nevertheless, the evaluation team finds that important trends, challenges, opportunities, and gaps have been presented in this report, with considerations for the way forward on polio transition in Nigeria.

3 Findings

3.1 EQ1: Achievements, best practices, challenges, gaps in the design of the Nigeria Costed Polio Transition Plan (relevance)

Sub-question 1.1: To what extent was the design of the Nigeria Costed Polio Transition Plan relevant and appropriate to achieve its intended purpose and objectives and did it respond to the needs and priorities?

The Nigeria Costed Polio Transition Plan was designed and developed through an inclusive and participatory process with inputs from many stakeholders including government, non-governmental organizations, civil society, faith-based organizations, and polio technical partners.

A country-led committee, the National Polio Transition Planning Committee, and the Polio Transition Technical Task Team (PT4) were set up to drive polio transition coordination and technical activities. While the National Transition Planning Committee provides general oversight and guidance, PT4 is responsible for planning and execution of technical activities. Membership of both the steering committee and PT4 includes wide representation from the Federal Ministry of Health, Ministry of Budget and National Planning, Federal Ministry of Finance, various ministerial departments and agencies like the NCDC, civil society organizations, Rotary International. Development partners also serve as members and include WHO, UNICEF, Core Group Partners Project, Bill and Melinda Gates Foundation, African Field Epidemiology Network, the Clinton Health Access Initiative (CHAI), etc.

The process for developing the Nigeria Costed Polio Transition Plan started in 2016 with a polio transition readiness assessment which employed the following methods: a simulation exercise for the identification of national transition priorities, a review of polio documents and reports, in-depth interviews of key stakeholders, mapping, and validation of polio assets. A polio transition business case was developed in 2019 to guide the development of the polio transition plan. The delay in development was associated with attention and resources diverted to address outbreaks. The plan was approved by the Inter-agency Coordinating Committee, chaired by the Honourable Minister for Health in July 2021.

Three key priority areas were selected to re-focus investments of the polio resources:

- Routine immunization
- Disease surveillance and outbreak and response
- Primary health care revitalization

Overall, most of the key informants described the development of the transition plan as an inclusive process with considerable consultation and engagement with various stakeholders to seek their technical inputs and buy-in. This view was also confirmed by all respondents of the online survey, who

either agreed or strongly agreed that stakeholders were appropriately consulted in the formulation of the transition plan.

Sub-question 1.2: To what extent does the plan align, complement, and link with other related policies, plans, strategies, and programmatic guidance in a coherent manner?

The Nigeria Costed Polio Transition Plan aligns to the National Health Policy of 2016, which is geared towards promoting the health of Nigerians to accelerate socio-economic development. The plan also complements national immunization strategies such as the Nigeria Strategy for Immunization and Primary Health Care System Strengthening 2018-2028 aimed at guiding and galvanizing efforts towards achieving sustainable immunization outcomes and strengthening the primary health care system. For example, participants in the focus group discussions and key informants reported that the Nigeria Costed Polio Transition Plan aligns with the government of Nigeria's vision and policies of strengthening primary health care systems and contributing towards achieving the Global Health Security Agenda, Universal Health Coverage, and the sustainable development goals.

Similarly, most of the key informants said the polio transition plan complements the government policies, strategies, and frameworks such as the national, state, and local government areas' emergency routine immunization coordination centres. These centres are geared towards improving access to safe and effective immunization services particularly to underserved populations in hard-to-reach communities. The complementarities with the Nigeria Costed Polio Transition Plan include support to sustainable service delivery, vaccinations including mobile services for immunization and transitioning of polio personnel with competencies that can support routine immunization.

3.2 EQ2: Achievements, best practices, challenges, gaps in the implementation of the Nigeria Costed Polio Transition Plan (effectiveness and efficiency)

Sub-question 2.1: To what extent is Nigeria on course to achieving its results across the three objectives of the Strategic Action Plan on Polio Transition?

Nigeria Costed Polio Transition Plan

The Nigeria Costed Polio Transition Plan was developed to support the transition of polio assets to strengthen the primary health care system. The transition plan details the available polio assets funded by the GPEI, including activities and functions, physical assets such as polio emergency operation centres, polio laboratories, vehicles, and the human resources working mainly in the polio space. It also describes the total cost required for transiting the polio assets from the partners to the Government of Nigeria to ensure maintenance of the gains of the polio eradication initiative and prevent a resurgence of the wild poliovirus in Nigeria.

Since 2017, volunteer community mobilizers and other polio community structures have been transitioned to serve as community health influencers, promoters, and services (CHIPS) for community engagement and health promotion activities to improve primary health care access and utilization, etc. As part of the transition process, the National and State Emergency Operations Centre structures and staff are supporting routine immunization activities and improvements in maternal and child health. Volunteer community mobilization of women with polio immunization experience is also prioritized for other public health programmes, including recruitment into the CHIPS. Figure 3 below presents an overview of the status of polio transition planning activities being conducted and milestones achieved in Nigeria from 2016 to date.

Figure 21: Polio transition milestones

Polio Transition Milestones				
Status of Polio Transition Planning in Nigeria				
Step	Key Milestone/Activity	Status	Year	
Awareness	Establish government awareness of transition planning process; understanding of the GPEI footprint, and rampdown projections	✓	2016	
Coordination	Set up Polio Transition Planning Governing structure	✓	2016	
	Establish Functional Polio Transition Planning Secretariat	✓		
	Establish Clear costed work plan	✓		
Evidence	Complete Asset mapping	✓	2016 & 2017	
	Document Lessons learned documented	✓	2017	
	Identify National health priorities	✓		
Strategic Options	Conduct Simulation Exercise with broad group of stakeholders	✓	2017	
Vision for the Future	Develop Business Case Document	✓	2019	
Roadmap	Develop Country Transition Plan with funding commitments and execution roadmap	✓	2020 - present	
Implementation & Monitoring	Implement a national polio transition plan and monitor process and outcome indicators	✓	2021 - 2023	

Source: National Primary Healthcare Development Agency, 2021

Despite the availability of a polio transition plan and a dedicated coordination mechanism, Nigeria is currently not on track toward achieving most of the key indicators for sustaining a polio-free status after eradication. For example, data from the table below shows that the national coverage rate for inactivated polio vaccine and bivalent oral polio vaccine was below the target of 53% and 57% respectively in 2020.

Similarly, there is very low coverage of measles vaccination for the first (MCV1 54%) and second dose (MCV2 12%) in 2020. The surge in polio outbreaks (cVDPV2), with 388 cVDPV2 reported cases occurring across the country in 2021 and poor environmental surveillance status, are major threats towards maintaining a polio free status in the country.

This poor performance in routine vaccination rates and surge in outbreaks are further compounded by low government expenditure on routine immunization per newborn which was only US\$ 13.4 in 2020.

Table 5: Performance and output indicators

Objective A: Sustain a polio free world after eradication					
<ul style="list-style-type: none"> High coverage of inactivated polio vaccine High quality acute flaccid paralysis surveillance Effective responses to polio events 					
Performance indicators:					
<ul style="list-style-type: none"> >90% coverage with >2 doses of IPV achieved in all countries with polio essential facilities that contain wild poliovirus Coverage with bivalent OPV > 90% At least one case of non-polio AFP should be detected annually/100 000 population aged less than 15 years. In endemic regions this rate should be 2/100 000 % of AFP cases with adequate stool specimens > 80% 					
Output indicators	2018	2019	2020	2021	Progress
1.1 Coverage with inactivated poliovirus vaccine (IPV)*	53%	53%	53%	-	Off track
1.2 Coverage with bivalent OPV*	56%	57%	57%	-	Off track

1.3 Rate of non-polio AFP/100 000 children < 5 years**	12.9	10.3	8.5	10.1	On track
1.4 Percentage of AFP cases with two adequate stool specimens**	95%	94%	83%	49%	On track
1.5 Polio outbreaks (cVDPV)**	34	18	8	388	Off track
1.6 Number of sites/number of environmental surveillance samples per site***	# sites: 16 Avg sample per site: 103	# sites: 126 Avg sample per site: 17	# sites: 159 Avg sample per site: 8	-	Off track

Objective B: Strengthen immunization systems and surveillance

- Increased coverage with measles antigen-containing vaccine and rubella-containing vaccine
- Countries with regular reporting of vaccine-preventable disease surveillance data from districts
- Government expenditure on routine immunization per newborn
- Expansion of surveillance and laboratory system at country level

Performance indicators

- Number and proportion of countries providing two doses of measles antigen-containing vaccine through routine services with coverage levels of second dose of measles antigen-containing vaccine and rubella-containing vaccine >90% nationally and >80% in all districts.

Output indicators	2018	2019	2020	2021****	Progress
2.1 MCV1 Coverage (%)*	54%	54%	54%	75%	Off track
2.2 MCV2 Coverage (%)*	N/A	9%	12%	12%	Off track
2.3 % of districts with MCV2 > 80%***	N/A	1%	1%	1%	Off track
2.4 Government expenditure on routine immunization in US\$ per newborn***	US\$ 3.6	N/A	US\$ 13.4	-	

Objective C: Strengthen emergency preparedness, detection, and response capacity (IHR)

Performance indicators

- Health events detected, and risk assessed early in health emergencies
- Populations affected by health emergencies have access to essential life-saving preventive and curative services and interventions
- Average value of the core capacity indicators of the IHR.

Output indicators	2018	2019	2020	2021	Progress
3.1 Average % of IHR self-assessment annual reporting of laboratory core capacity***	27%	47%	60%	-	On track
3.2 Average % of IHR self-assessment annual reporting of surveillance core capacity***	80%	70%	80%	-	On track
3.3 Average % of IHR self-assessment annual reporting of emergency framework core capacity***	40%	47%	60%	-	On track

Sources: *[WUENIC estimates](#), **[GPEI data](#), *** [Polio transition dashboard](#), ****NPHCDA/Polio EOC Polio Surveillance data (numbers provided by country office)

Process indicator: Development and endorsement of a Nigeria Costed Polio Transition Plan

The Government of Nigeria has identified three national priorities for transitioning of polio resources, namely primary health care revitalization, disease surveillance and outbreak response and routine immunization. These priorities support the broader primary health care system. Despite most of the stakeholders stating that the plan is comprehensive and well developed, the feasibility of fully implementing the polio transition plan is questionable. Efforts at implementation have been hampered by many factors like the poor health financing landscape and disruptions caused by the COVID-19 pandemic. Interestingly, the online survey showed that respondents felt there was little government commitment to sustaining essential polio functions, and they all either agreed or strongly agreed that there was limited government ability to absorb costs of essential polio functions. However, when it came to integrating acute flaccid paralysis (AFP) surveillance with surveillance of other diseases and

integration of polio assets, tools, and knowledge into other health programmes, the respondents were divided – about half disagreed and the other half agreed that there was limited progress to integrate.

Sub-question 2.2: What have been the key contextual factors and changes that have affected preparations and the implementation of the Nigeria Costed Polio Transition Plan?

Key contextual factors which have helped move transition efforts in the right direction include the leadership, commitment and ownership demonstrated on behalf of the government along with multisectoral partnerships and engagement with CSOs, NGOS, and United Nations agencies in the transition process. This ownership, fostered in part through capacity building efforts by WHO, if continued and ramped-up could further promote progress of transition activities.

Several contextual factors have been identified which negatively affect implementation of the polio transition plan, such as circulating vaccine-derived poliovirus (cVDPV2) outbreaks, disruptions caused by the COVID-19 pandemic, financial resource challenges, poor implementation of surveillance and vaccination activities and the rising insecurity in most parts of the country (insurgency, banditry, and kidnapping in parts of the country, especially in North-East and North-West states). All of these have contributed to decreasing coverage of essential childhood immunization rates⁶⁸.

Poliovirus outbreaks

Circulating vaccine-derived poliovirus outbreaks in Nigeria

Following the polio-free certification in 2018, between 2018 and 2021, the country began to experience ongoing pockets of cVDPV2 outbreaks across states, multiple cVDPV2 isolates were identified, as shown in the Table 2 below.

Table 6: Cases of cVDPV2 recorded between 2018 - 2021 in Nigeria

Year	2018	2019	2020	2021
cVDPV2*	34	18	8	388
cVDPV from environmental surveillance**	46	60	6	291

Sources: *[GPEI data](#), **NPHCDA, Nigeria Costed Polio Transition Plan, 2021

Data from Table 2 shows that in 2018 the country experienced an outbreak of cVDPV2 with a total of 34 cVDPV2 cases. These cases originated in Jigawa and Sokoto states respectively. The number decreased to 18 cases in 2019 and 8 cases in 2020. In 2021 there was another major resurgence of about 402 cVDPV2 cases (see Figure 4) throughout the year (based on AFP surveillance, note that the figure differs from that reported to GPEI (388) presumably because of determining the date of onset or reporting), which has been fuelled mainly by poor operational and surveillance activities like delayed detection of the virus, poor outbreak responses due to delayed lab sequence reports and late distribution of nOPV2 vaccine⁶⁹. In the online survey, respondents were asked if outbreaks of cVDPV had challenged implementation, to which all respondents either agreed or strongly agreed.

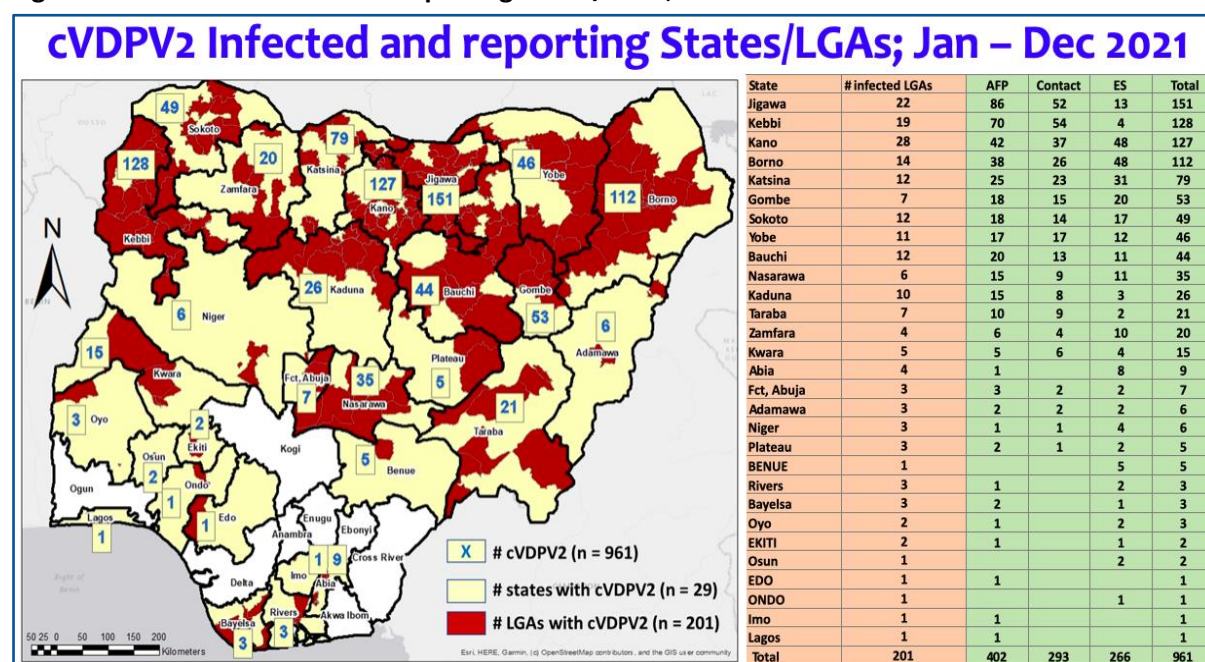
In 2021, a total of 29 states and 201 local government areas (LGAs) had outbreaks of cVDPV2, with more outbreaks occurring in LGAs in the northern states when compared to the southern states. The northern states like Jigawa (86), Kebbi (70), Kano (42), Borno (38) and Katsina (25) had the highest

⁶⁸ WHO - Nigeria Country Office, Updates on cVDPV2 Outbreak Response in Nigeria, February 2022

⁶⁹ WHO - Nigeria Country Office, Updates on cVDPV2 Outbreak Response in Nigeria, February 2022.

number of cases of cVDPV2, while the southern states such as Lagos (1), Imo (1), Ondo (1), Edo (1) and Osun (1) had the lowest number of cases (see Figure 4).

Figure 22: cVDPV2 infected and reporting states/LGAs; Jan - Dec 2021



Source: WHO Nigeria, Updates on cVDPV2 Outbreak Response in Nigeria 2021

Nigeria experienced a marked increase in the number of positive cVDPV2 cases from environmental surveillance in 2021 with a total of 266 isolates when compared to previous years, 2018 (46), 2019 (60), and 2020 (6) cases respectively. Similarly, northern states like Kano (48), Borno (48), Katsina (31), Gombe (20) and Sokoto (17) had the highest number of positive cVDPV2 cases from environmental surveillance when compared to the southern states.

Furthermore, Nigeria has one of the lowest reported *district level coverages* of MCV⁷⁰ in the world, implying severe equity concerns and immunity gaps across the country. Although the same indicator for polio vaccination is not available, a similar trend could be expected, and such immunity gaps are vehicles for new outbreaks.

In addition, as part of the ramp-down, the number of staff supporting the polio programme in Nigeria decreased by 54% from 2020 to 2021 (1 578 to 849) which made it difficult to respond to the outbreaks, as noted by a key informant “we see massive outbreaks and we don’t have enough resources.”

The COVID-19 pandemic

The COVID-19 pandemic strained the health system in Nigeria, just like many other countries across the world and this caused marked disruptions to routine immunization service delivery especially in 2020⁷¹. As a result, access to immunization services such as measles, polio and pertussis were substantially affected and hard-fought gains in vaccination coverage were negatively impacted, due to a combination of factors including:

- i. the restrictions (lockdown measures) placed on movement and travel to contain the spread of the virus;

⁷⁰ WUENIC: [WHO/UNICEF estimates of national immunization coverage, Polio transition dashboard](#)

⁷¹ UNICEF, Tracking the situation of children during COVID-19, May 2021 [Situation of children during COVID-19](#)

- ii. the human resource capacity of primary healthcare facilities was strained due to the high volume of hospitalizations caused by the COVID-19 virus and health workers were being redeployed to respond to the pandemic;
- iii. the postponement of scheduled supplemental immunization campaigns like measles and yellow fever to reduce the risk of transmission during such campaigns;
- iv. the diversion of finances from Government and development partners to deal with COVID-19 treatment and response; and
- v. the demand-side challenges, e.g., the reluctance of parents to bring children to be vaccinated due to fear of infection and patients had non-urgent medical care postponed because of concerns about exposure to the virus.

In Nigeria, an estimate based on coverage reported by the national government shows that declines and stagnation in routine immunization coverages were noted mostly between March and May 2020, but immunization activities were enhanced starting in July 2020. To mitigate these disruptions caused by the COVID-19 pandemic, the government of Nigeria, through the National Primary Healthcare Development Agency in collaboration with development partners, implemented various strategies e.g., the Optimized Integrated Routine Immunization Sessions and the “whole family” approach which combines COVID-19 vaccination with healthcare services like childhood vaccination, malnutrition, and screening for non-communicable diseases⁷². Respondents from the online survey confirmed that COVID-19 had been a challenge to implementation of polio transition.

Resource challenges

Resources are divided into human resources and financial resources. All respondent to the online survey confirmed that both had been and still are key challenges to implementation of polio transition activities.

Human resources

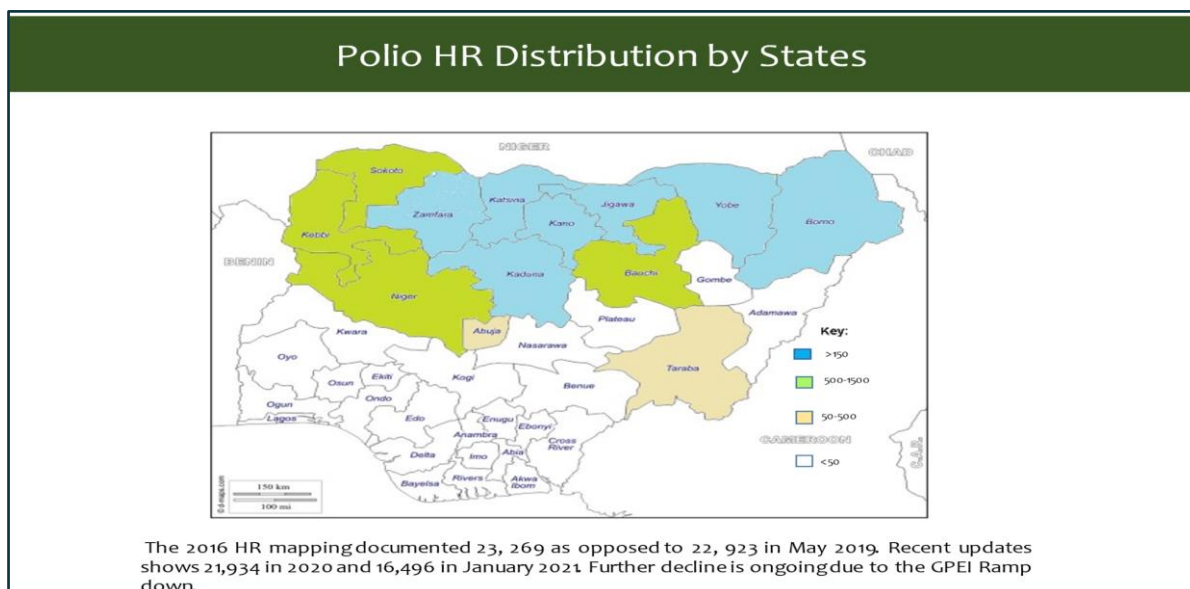
A key component of the polio transition plan is the systematic transfer of existing human resources supporting polio functions across development partner organizations (e.g., GPEI-funded personnel) to the Government Health Ministries and agencies at the national and state levels. The human resources have built competencies over time and remain valuable assets to support the implementation of the mainstreamed polio functions in the country⁷³.

The Government of Nigeria and development partners identified key polio functions and activities that need to be sustained. This included human resources and capacity required to sustain these functions to ensure that wild polio virus resurgence is prevented, and the gains of the polio programme are maintained. Based on findings from the human resource analysis conducted, it was realised that polio staff are generally very skilled and polyvalent and support several other areas of the health sector beyond polio. For example, the 2019 mapping revealed that only 36.7% of polio staff work exclusively on polio eradication. They are also supporting routine immunization, disease surveillance, maternal newborn health, health system strengthening, and water and sanitation.

⁷² National Primary Healthcare Development Agency, Nigeria Polio Transition Business Case - (2019 - 2023)

⁷³ National Primary Healthcare Development Agency, Nigeria Polio Transition Business Case - (2019 - 2023)

Figure 23: Distribution of polio HR by states and current areas of deployment



Source: NPHCDA, Nigeria Costed Polio Transition Plan, 2021

Data on polio human resource distribution (see Figure 5) show that there is a greater concentration of GPEI-funded personnel in the northern part of the country which corresponds with higher numbers of cases of wild poliovirus. For example, a human resource survey done in 2019 showed that Zamfara, Kaduna, Katsina, Kano, Jigawa, Yobe and Borno each had over 1 500 polio personnel deployed⁷⁴. Also, five out of the eight polio emergency operation centres (EOC) are located in these states (Katsina, Yobe, Kaduna, Kano, and Borno). While the human resource mapping of 2016 showed the total number of polio staff at 23 269, recent updates showed 21 934 in 2020 and 16 496 in 2021⁷⁵.

Finance

As part of the ongoing polio transition process currently being implemented by the Government of Nigeria and development partners as described above, adopting the most suitable sustainable financing mechanisms for the polio transition remains a big challenge. In a bid to cover this critical issue, five transition scenarios (1-5) were considered (see Figure 6 below), out of which the PT4 team and immunization stakeholders selected Scenario 4 (see Figure 7 for reasons behind choosing Scenario 4), a phased transfer of assets and human resources from year one. This scenario was thought to best foster a sense of sustainability and country ownership. It will also allow the Government of Nigeria to retain sufficient resources to support critical polio functions throughout and beyond the transition period.

⁷⁴ WHO Nigeria - Business case in support of Government Health Priorities, August 2019

⁷⁵ National Primary Health Care Development Agency, Nigeria Simulation Exercise Nigeria Polio Transition Planning (2016)

Figure 24: Polio human resource transition scenario planning

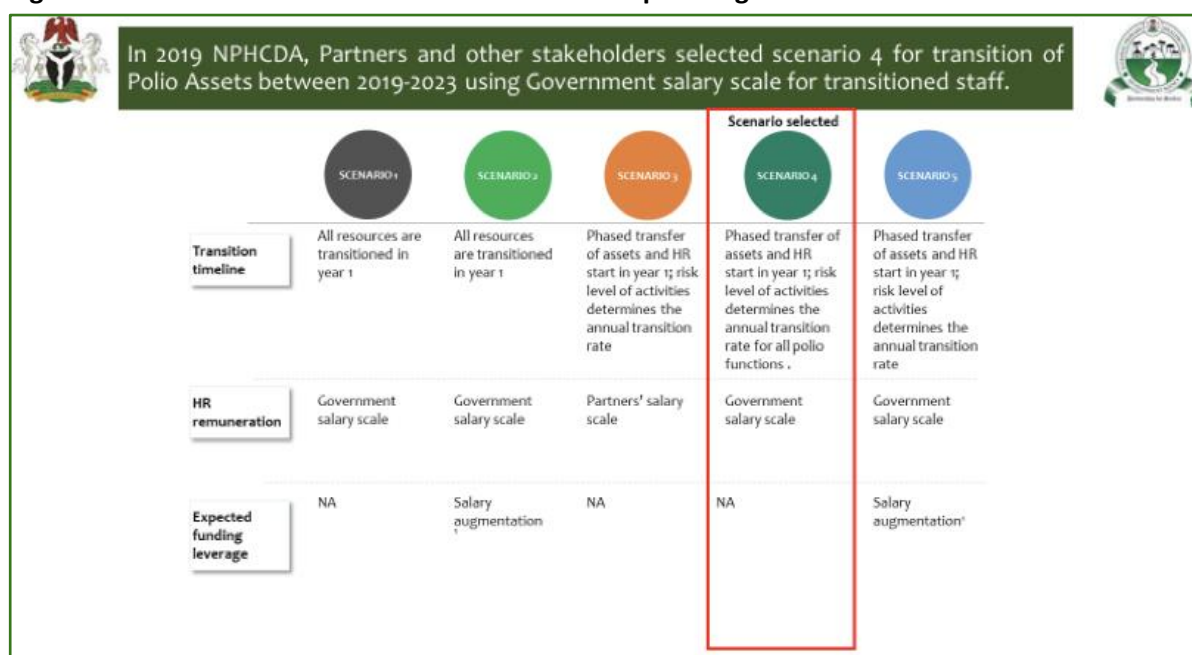
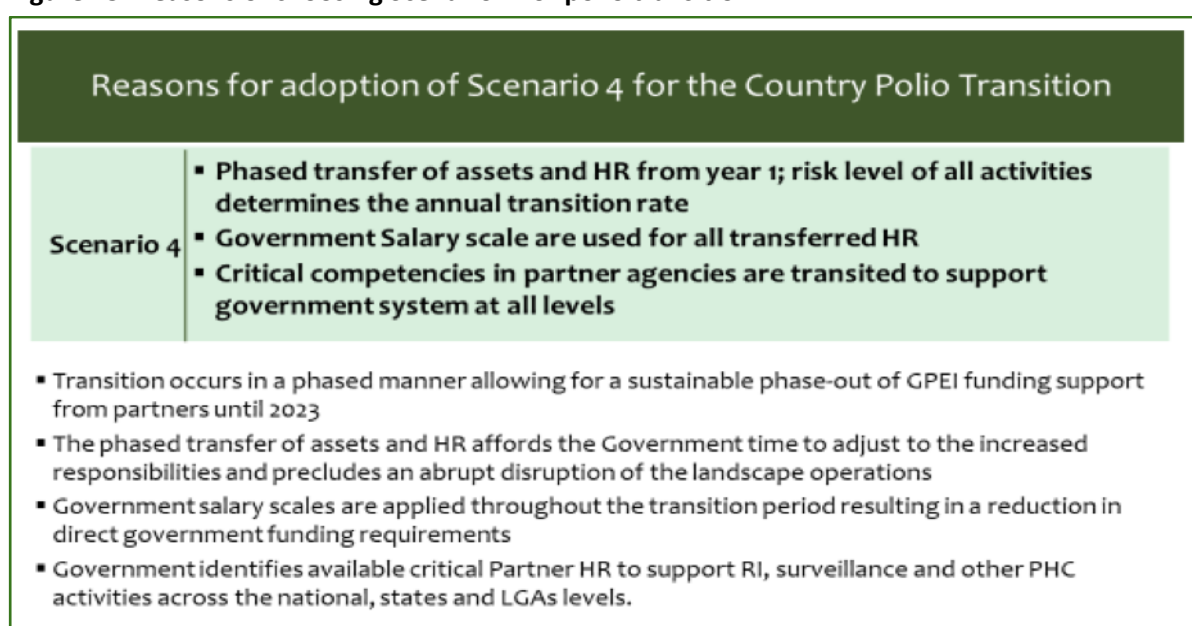


Figure 25: Reasons of choosing Scenario 4 for polio transition



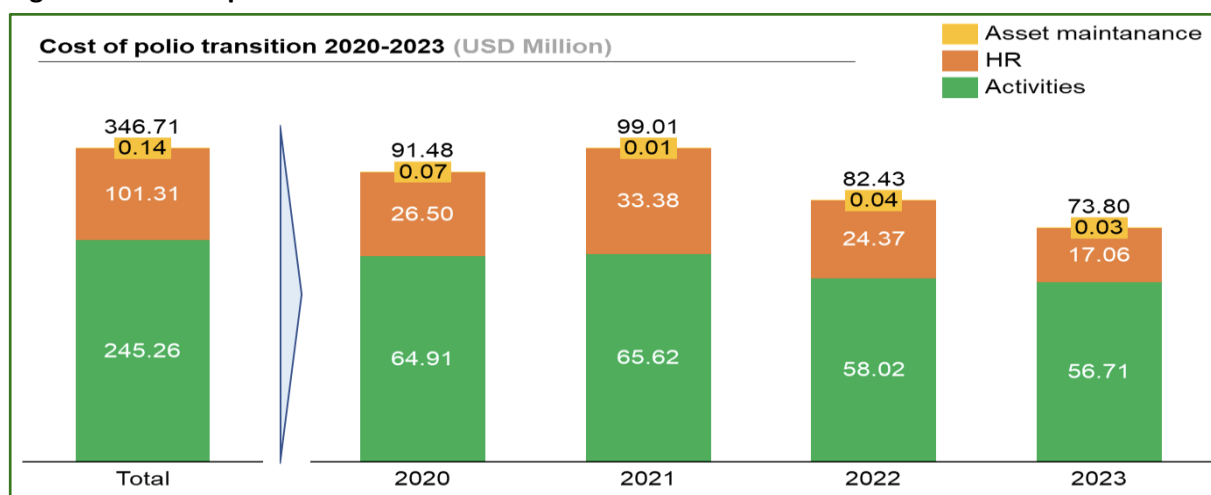
Source: NPHCDA, Nigeria Costed Polio Transition Plan, 2021

Using the Scenario 4 costing option selected during the development of the *Polio Transition Business Case Document* in 2019, the total cost of the polio transition process was established at US\$ 346.7 million (see Figure 8)⁷⁶. This total cost was derived from the summation of individual transition costs for each of the three components: physical assets, human resources, and activities. Most of the transition cost will be for activities, followed by human resources and lastly for maintenance of tangible assets. The activities comprise the core polio activities and the cost of implementing the adapted best practices to strengthen primary health care services and prevent the re-emergence of the wild

⁷⁶ National Primary Healthcare Development Agency, *Polio Transition Business Case Document*, 2019

poliovirus. The human resource cost comprises the current salaries of GPEI-funded staff and salaries of the technical assistants to be engaged for 2020-2023.

Figure 26: Cost of polio transition 2020-23



Source: NPHCDA, Nigeria Costed Polio Transition Plan, 2021

Effects of the accelerated ramp down of GPEI resources in Nigeria

After Nigeria was declared free of wild poliovirus in August 2020, a massive cut in GPEI funding allocation for polio related activities in the country followed. As a result of this drastic funding reduction, the WHO country office in Nigeria and other development partners implementing the GPEI funding had to ramp-down their polio transition activities from what was planned for December 2021 to December 2023.

The uncertainties caused by the accelerated ramp-down of GPEI funding, which represented a significant decrease in the estimated budget for implementation of the already costed polio transition plan, caused delays in the finalization process of the Polio Transition Plan. Initial costing and financial analysis conducted for the transition process assumed that the GPEI partners (WHO, UNICEF) would have adequate funding to support human resources and administrative costs through 2023. Therefore, because of the accelerated ramp-down, the polio human resources across all GPEI partner organizations are projected to be reduced significantly from 2020 to 2023 (see Table 3). Due to this sudden ramp-down of GPEI resources effective as of 2021, another cost analysis had to be conducted to enable the government to plan for mobilization of funding to cover the gap.

Table 7: Polio human resource projection

GPEI partners	2020	2021	2022	2023
UNICEF*	18 860	14 151	9 440	4 720
WHO**	314	306	232	207

Sources: *Nigeria Costed Polio Transition Plan, 2021 and **A71/9 and WHA 74/20

The accelerated ramp-down has also brought about a reduction in funding for the implementation of essential polio functions (e.g., polio surveillance and laboratories, logistics and human resource core capacity to respond to possible outbreaks etc.) which need to be sustained during the transition period (2021-23) to prevent a resurgence of wild poliovirus cases.

Consequently, the funding gap and the massive lay-off of experienced staff led to large-scale inefficiency in the implementation of the polio programme. The staff that were let go were valuable

assets to the health system. Due to shortages in human resources the country is now prone to persistent delays in the confirmation of AFP laboratory samples (on average it takes a cVDPV2 AFP case 43 days to be confirmed, against the 2022-2026 GPEI target of 35 days), and slower in responding to cVDPV2 outbreaks.

The online survey showed clear mutual agreement that the ramp-down of GPEI resources will affect surveillance of vaccine preventable disease programmes, immunization programmes, and health emergency outbreak response all three of which are managed by polio resources.

The table below presents a picture of the decrease in GPEI funding from original levels in 2016 to 2019 (44% decrease) and the estimated costs of running the polio response in Nigeria from 2020-2021. This massive decrease in funding (from 2016 to 2019) is leaving a gap that government and other partners are finding difficult to fill. Given the significant presence of WHO and UNICEF staff as can be seen in Table 3, their transitioning, without adequate funding, threatens the polio response in Nigeria.

Table 8: GPEI funding 2016 and 2019.

Country	GPEI 2016	GPEI 2019	% Decrease
Nigeria	US\$ 76 764 000	US\$ 43 352 000	44%

Source: WHO AFRO

The severity of the ongoing and future human resources and funding scenarios was expressed by informants, mentioning that the observed disengagement of experienced polio staff from WHO and other polio partner organisations, will impact negatively on the quality of routine immunization, surveillance and other primary health programmes. These critical programme areas such as AFP surveillance and sample transportation led by WHO and funded with GPEI resources will have "a huge programme and funding gap" especially as the Nigeria Center for Disease Control may not be immediately ready to take over the financial requirements for these areas due to their current inadequate infrastructure at the lower levels.

Insecurity

The poor security situation, largely attributed to Boko Haram insurgency, in most parts of the country was identified as a major hindrance to not only the polio transition efforts but provision of essential services across the primary health care spectrum. These insurgencies take place mainly the northern part of the country, which is where, as previously shown, poorer immunization rates and higher incidents of cVDPV numbers are recorded.

3.3 EQ3: Potential to create and/or contribute to sustainable changes (sustainability)

Sub-question 3.1: Does the implementation of the plan have the potential to create and/or contribute to sustainable changes?

As previously mentioned, the Nigeria Costed Polio Transition Plan was considered well-articulated and aligned with national primary health care systems strengthening, universal health coverage and sustainable development goals. However, the need for good accountability frameworks and adequate funding, both of which are in jeopardy with the decline of GPEI resources and funding, threaten the potential to contribute to sustainable changes.

That said, the infrastructure built under the polio response, coupled with a massive human resource pool and their competencies, allowed the country to respond quickly to the COVID-19 pandemic. This showcased the importance of the polio response network to respond in an agile, wide-ranging, and technical competent manner to an emergency. This demonstrates how these critical resources can contribute to wider change in the primary health care response within the country. It also demonstrated how polio and emergency response teams can and should work together to ensure an integrated response to crisis which is in line with the Strategic Action Plan on Polio Transition Objective C: strengthening emergency preparedness, detection, and response capacities. However, critical to both responses are ensuring that adequate funding levels exist. An informant clearly expressed this situation.

The poor performance of routine immunization service delivery like inactivated polio vaccines (IPV), measles (MCV1 and MCV2) and persistent surges in polio outbreaks (cVDPV2) which is further compounded by low government financing for immunization in the country are major threats to the successful transitioning of polio assets. There is no clear sustainability mechanism in place for the Government of Nigeria to fully take over the responsibility of financing the polio programme when the polio assets are fully transitioned.

Sub-question 3.2: To what extent have resources and staff been integrated in a sustainable manner into other health programmes in line with the Action Plan and what are the indications towards future financing models?

Most of the interview respondents reported that there is a good framework developed by the Government and the stakeholders for transitioning polio assets and human resources to other health systems efforts. However, due to the huge financing gap and poor allocation of financial resources for routine immunization services by the Government, there needs to be proper domestic resource mobilization strategies and innovative financing mechanisms in place. Without this commitment on the side of the Government and support of WHO to galvanize funding through other channels, the future of the polio response, and wider immunization and emergency response, is threatened.

Informants by and large agreed that if funding is secured, the polio transition plan is solid and sustainable. It is estimated that around 60% of polio human resources and structures through national and state polio emergency operations centres have been repurposed to support the National Emergency Routine Immunization Coordination Centre and the National Emergency Maternal and Child Health Intervention Centre. They support other health programmes like new vaccines roll-out for COVID-19, supplemental immunization activities, and managing other disease outbreaks. These efforts toward integration are commendable however financing the positions remains a concern as was confirmed by the online survey respondents who generally felt there was lack of political commitment and ability to secure the necessary financial resources.

4 Conclusions, lessons learned and future considerations

4.1 Conclusions and lessons learned

The Nigeria costed polio transition plan has been developed by the Government of Nigeria and development partners to guide the country to efficiently transfer polio resources from the partners to the government of Nigeria from 2021-2023. The transition plan aligns with the National Health Policy 2016 and complements the Nigeria Strategy for Immunization and Primary Health Care Systems Strengthening 2018 – 2028 and the Sustainable Development Goals framework.

The plan aims to strengthen the primary health care sector in its march towards the achievement of SDGs and universal health coverage. The national PT4, with guidance from the National Polio Transition

Technical Committee, chaired by the Executive Director of the NPHCDA, developed the Polio Transition Business Case Document in 2019 to guide the development of the polio transition.

It has been estimated that it will cost Nigeria US\$ 346.7 million to transition GPEI resources to the Government over a three-year period (2021-23). However, with the shortage of sustainable financial resources to implement the transition plan, the accelerated ramp down of GPEI resources, and the surge in cVDPV2 cases coupled with rising insecurity across the country, it seems unrealistic for the Government of Nigeria to carry out the transition exercise within this short timeframe.

Main challenges and contextual factors affecting implementation

The main challenges that have hindered implementation of the national transition plan in Nigeria include the large cVDPV2 outbreaks, COVID-19, poor economic situation in the country, insecurity, and high rate of disengagement of polio staff.

- The surge in cases of cVDPV2 outbreaks remains a threat across several states in Nigeria. It takes focus away from transition as action is focused on handling the outbreaks. Managing the outbreaks was further delayed due to the disengagement of polio staff.
- The COVID-19 pandemic diverted both focus and funds away to other programmes. This made mobilisation of the required funding for the polio transition even more challenging. Also, transition activities were delayed as polio responders had to focus on managing COVID-19.
- The critically poor economic situation in the country, due to the recent economic crunch caused by COVID-19 lockdown measures, may have hindered the capacity for domestic resource mobilisation within the Nigerian government.
- The continued insecurity situation (Boko Haram insurgency, banditry, kidnapping) in parts of the country, especially in the North-East and the North-West states, remains a problem for both eradication and transition efforts.
- The high rate of disengagement of polio staff from WHO and other polio partner organisations has impacted negatively on the implementation of routine immunization, surveillance, and other primary health care programmes.

Sustainable change against transition of polio in Nigeria

- In 2019 the NPHCDA, development partners and other polio stakeholders selected Scenario 4 for the transition of polio assets between 2019-2023 using the government salary scale for transitioned staff. Sufficient financing for Scenario 4 is yet to be secured, which presents one of the biggest challenges to sustaining gains made under eradication and transition to date.

4.2 Considerations regarding future priorities

Due to the relatively low number of key informant interviews and only two focus groups discussions to serve as triangulation points, it is not possible to formulate direct recommendations. Therefore we have written a set of considerations for further implementation of polio transition on Nigeria.

- The Government of Nigeria and development partners need to maintain polio transition activities as a high priority and further strengthen disease surveillance activities to sustain the wild poliovirus-free status already attained by the country.
- As polio transition continues to be implemented in the coming years, it will be critical that NPHCDA, NCDC and other development partners collaborate and coordinate the surveillance efforts to effectively tackle the rising cases of cVDPV2, especially in security compromised areas.
- The Government of Nigeria should mobilise the funding required for the implementation of the polio transition programme, while absorbing the critical GPEI and donor-funded human resources to help provide the needed technical support for the country to prevent a

resurgence of wild poliovirus and maintain a strong primary health care system. Additionally, the Government needs to ensure that the continued ramp-down and disengagement of polio staff is completed with as little effect on overall routine immunization, surveillance, and other primary health care programmes.

- There is a need to scale-up the sensitisation for state and local government area stakeholders on the polio transition through increased stakeholder engagement and high-level advocacy visits to seek their buy-in to foster a sense of ownership and accountability. The advocacy should focus on resource mobilization to increase financial resources and provide political support for the transition exercise.
- NPHCDA and partners should set up state and local government area Polio Transition Technical Task Teams using frameworks already developed by PT4 to facilitate the replication of adequate leadership and governance structures which will drive the polio transition activities at the sub-national levels.
- The Government of Nigeria and development partners should work collaboratively to harmonize their programme implementation activities “breakdown the silos” for primary health care systems strengthening towards improving efficiency and cost-effectiveness in quality healthcare service delivery.

Annex 12: Country case study report, Somalia

Table of contents

1	<u>Introduction</u>	90
	1.1 Background	90
	1.2 Situation and context - Somalia	90
1.2.1	<i>Socio-economic overview</i>	90
1.2.2	<i>Health sector overview and disease burden</i>	91
1.2.3	<i>Vaccine-preventable diseases, including poliovirus outbreaks</i>	92
1.2.4	<i>Novel oral polio vaccine</i>	94
2	<u>Methods and approach</u>	95
	2.1 Key informant interviews and focus group discussions	95
	2.2 Online survey	95
	2.3 Data analysis and quality assurance	95
	2.4 Limitations	96
3.	<u>Findings</u>	97
	3.1 EQ1: Relevance of the Somalia polio transition plan	97
3.1.1	<i>Sub-question: To what extent was the design of the national transition plan in Somalia relevant and appropriate to achieve its intended purpose and objectives and does it respond to the needs and priorities of Somalia?</i>	97
3.1.2	<i>Sub-question: To what extent does the plan align, complement, and link with other related national policies, plans, strategies, and programmatic guidance in a coherent manner?</i>	98
	3.2 EQ2: Effectiveness and efficiency in the implementation of the Somalia polio transition plan	99
3.2.1	<i>Sub-question: To what extent is Somalia on course to achieving its results across the three objectives of the strategic action plan on polio transition?</i>	99
3.2.2	<i>Sub-question: What have been the key contextual factors that have affected the design, endorsement, and implementation status of the national plan on polio transition in Somalia?</i>	104
3.2.3	<i>Sub-question: To what extent is the implementation of the national polio transition plan likely to lead to successful polio transition in Somalia based on optimal use of resources?</i>	106
	3.3 EQ3: Potential to create and/or contribute to sustainable changes	110
3.3.1	<i>Sub-question: To what extent is the implementation of the national transition plan likely to contribute to sustainable change in relation to the three key objectives of the Action Plan and on broader outcomes and anticipated impact indicators?</i>	110
4	<u>Conclusions and considerations for the way forward</u>	113
	4.1 Conclusions	113
	4.2 Considerations for the way forward on polio transition in Somalia	113

Table of figures

Figure 1. Vaccination coverage of POL3, IPV1, and MCV1 in Somalia during 2000-2020, %	93
Figure 2. Number of poliovirus cases reported in Somalia during 2000–2021	94
Figure 3. Administrative vaccine coverage data and WUENIC estimated coverage data	102
Figure 4. Vaccination coverage for children aged 12-23 months, Somalia 2020	102
Figure 5. Inaccessible and accessible areas, Somalia 2020	105
Figure 6. Transition phases	107
Figure 7. Gender-sensitive indicators	109
Figure 8. Funding gaps for polio transition in EMR polio priority countries	112

Table of tables

Table 1: Performance and output indicators	100
Table 2. Somalia, WHO GPEI budgets 2018-2022, US\$	111

Abbreviations and acronyms

AFP	Acute flaccid paralysis
COVID-19	Coronavirus disease 2019
CSO	Civil Society Organisation
cVDPV	circulating vaccine-derived poliovirus
DPT	Diphtheria, pertussis, and tetanus vaccine
EMR	WHO Eastern Mediterranean Region
EPHS	Essential package of health care services
EPI	Expanded Programme on Immunization
EQ	Evaluation question
FDG	Focus group discussion
Gavi	The Global Alliance for Vaccines and Immunization
GPEI	Global Polio Eradication Initiative
HSSP II	Health Sector Strategic Plan II
IDSR	Integrated disease surveillance and response
IHR	International Health Regulations (2005)
IPHT	Integrated Public Health Teams
IPV	Inactivated polio vaccine
KII	Key informant interview
M&E	Monitoring and evaluation
MCV1	One-dose measles containing vaccine
MCV2	Two-dose measles containing vaccine
MoH	Ministry of Health
nOPV2	Novel oral polio vaccine type 2
OPV	Oral polio vaccine
POL3	Oral polio vaccine, 3 doses
SHDS	Somali Health and Demographic Survey
TIMB	Transition Independent Monitoring Board
UN	United Nations
UNICEF	United Nations Children's Fund
VPD	Vaccine-preventable diseases
VPV	Village polio volunteers
WHO	World Health Organization
WPV	Wild poliovirus
WUENIC	WHO/UNICEF estimates of national immunization coverage

Acknowledgements

The evaluation team would like to thank the Federal Ministry of Health in Somalia for providing useful insights. We also wish to acknowledge the logistical and technical support and guidance provided by colleagues from the WHO - Somalia country office, especially the WHO Country Representative Dr Mamunur Malik and Dr James Ndithia.

Lead country case study consultant: Dr Yasin Mohamed Nur

1 Introduction

1.1 Background

The mid-term evaluation of the Strategic Action Plan on Polio Transition (2018-2023) is one of the milestones in the polio transition road map. It was included in the WHO biennial evaluation workplan 2020–2021 that was approved by the Executive Board at its 146th session in February 2020⁷⁷.

The perspective of the evaluation is both outcome-based (assessing the status and implementation of the Action Plan) and forward-looking (proposing any modifications needed to adapt to the changing context). Considering the timing and changes in contextual factors, focus is placed on the formative – forward looking part – to generate learning that can inform relevant discussions and decisions both within WHO and its governing bodies, and Member States.

The overarching evaluation questions (EQ) were as follows:

- EQ1: What have been the key achievements, best practices, challenges, gaps and areas for improvement in the design of the Action Plan? (Relevance)
- EQ2: What have been the key achievements, best practices, challenges, gaps and areas for improvement in the implementation of the Action Plan? (Effectiveness and efficiency)
- EQ3: Does the implementation of the Action Plan have the potential to create and/or contribute to sustainable changes? (Sustainability)
- EQ4: What recommendations are appropriate on the way forward to enable successful implementation of the Action Plan?

As part of this evaluation, the evaluation team conducted three country case studies- in Nigeria, Bangladesh and Somalia- that were intended to explore in greater depth the experiences, achievements, and challenges of implementing polio transition plans at the country level to generate learning. Findings were incorporated into and triangulated with other broad findings of the overall evaluation report. This country case report presents the situation and context, main findings, conclusions and considerations for the way forward on polio transition in Somalia.

1.2 Situation and context – Somalia

1.2.1 Socio-economic overview

Somalia has a young population, children under 15 years of age account for 46% of the population⁷⁸. Life expectancy at birth was 56 years for men and 60 for women in 2021⁷⁹. Somalia is considered one of the most fragile and vulnerable countries in the world suffering from protracted conflicts and political instability for more than three decades. Somalia was ranked first or second every year since 2008 in the worldwide Fragility States Index⁸⁰.

The Somali population was estimated at 16.4 million in 2021⁸¹, of which 26% were considered living in nomadic areas. In total, almost three million people were internally displaced by the end of 2020⁸².

⁷⁷ WHO Evaluation Workplan 2022-2023, website: <https://www.who.int/about/what-we-do/evaluation/resources/evaluation-workplan-2020-2021>

⁷⁸ UNFPA World Population Dashboard, Somalia, website: <https://www.unfpa.org/data/world-population/SO>

⁷⁹ UNFPA World Population Dashboard, Somalia, website <https://www.unfpa.org/data/SO>

⁸⁰ Fragile States Index Country Dashboard website: <https://fragilestatesindex.org/country-data/>

⁸¹ UNFPA World Population Dashboard, Somalia, website: <https://www.unfpa.org/data/world-population/SO>

⁸² Internal displacement monitoring centre website: <https://www.internal-displacement.org/countries/somalia>

Displacement is fuelled by conflict, natural disasters and food insecurity. In 2020, Al-Shabaab intensified its attacks in Somalia triggering 136 000 new displacements, whereas floods triggered another 979 000 new displacements in the same year⁸³. In October 2021, conflicts in the Galmudug State forced more than 100 000 people into displacement in Somalia⁸⁴. Overall, the security situation in Somaliland and Puntland was stable compared to the rest of the country until early 2018 when clashes along the border in Tukaraq strained relations between Somaliland and Puntland⁸⁵.

The international poverty rate is estimated at 71% in Somalia – a level expected to continue in 2022 and 2023⁸⁶. An incomplete political settlement and vulnerability to shocks are jeopardizing recent economic gains and recovery from fragility. The combination of the Coronavirus disease 2019 (COVID-19) pandemic, floods, and locust infestations in 2020 led to an economic recession of about 0.4% in 2020⁸⁷.

1.2.2 Health sector overview and disease burden

Longstanding war and political unrest for more than three decades have weakened the health system in the country. Somalia's health system is today considered one of the most fragile in the world⁸⁸. The health system is poorly resourced, inequitably distributed and health indicator outcomes are among the lowest in the world. Currently, only 35% of Somalia's population have access to essential health services⁸⁹.

Somalia consists of five Federal Member States (FMS) namely Puntland, Jubbaland, Hirshabelle, Galmudug and SouthWest, along with Banadir Regional Administration (has special status and is not part of any of the Federal Member States). Each FMS has its own administrative health system structure, and therefore health service delivery and the underlying support system differ among them and the federal government has not established a uniform supply of health service delivery across the country. Whereas primary healthcare has improved in Puntland, the situation in South Central Somalia has not improved to the same extent, according to a baseline study on Somalia's health care system⁹⁰. The fragmentation of the health care system in Somalia carries the risk of a slow pace of activities and decision-making, compounded by the need to consult a high number of development partners and health organisations operating in the country.

Somalia is almost totally dependent on donors for the functioning of the health system. The government's expenditures on health comprised only 1.1% of total government spending in 2019 and remain vastly below the 15% Abuja Declaration target set by African Union countries⁹¹.

⁸³ Internal displacement monitoring centre website: <https://www.internal-displacement.org/countries/somalia>

⁸⁴ OCHA, Somalia, Flash update on the situation in Guri Ceel, Galmudug #2 As of 26 October 2021

<https://reliefweb.int/sites/reliefweb.int/files/resources/Flash%20Update%20on%20Guri%20Ceel%20-%20-%20final%20Over.pdf>

⁸⁵ Draft Somalia National Transition Plan July 2018

⁸⁶ Pape UJ, Wollburg PR. Estimation of poverty in Somalia using innovative methodologies. World Bank Policy Research Working Paper. 2019 Feb 12(8735).

⁸⁷ World Bank. Somalia Economic Update: Investing in Health to Anchor Growth (English). Somalia Economic Update, edition no.

6 Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/926051631552941734/Somalia-Economic-Update-Investing-in-Health-to-Anchor-Growth>

⁸⁸ World Bank. Somalia Economic Update: Investing in Health to Anchor Growth (English). Somalia Economic Update, edition no. 6 Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/926051631552941734/Somalia-Economic-Update-Investing-in-Health-to-Anchor-Growth>

⁸⁹ Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization, and Washington, DC: International Bank for Reconstruction and Development / The World Bank; 2017 <https://apps.who.int/iris/handle/10665/260522>

⁹⁰ HIPS & City University of Mogadishu, Somalia's Health Care system, a baseline study and human capital development strategy, May 2020, <http://www.heritageinstitute.org/wp-content/uploads/2020/05/Somalia-Healthcare-System-A-Baseline-Study-and-Human-Capital-Development-Strategy.pdf>

⁹¹ Federal Government of Somalia, Citizens' guide to the 2019 budget <https://mof.gov.so/sites/default/files/2019-02/Citizen%20Budget%202019%20Website.pdf>

Somalia's Universal Health Coverage Index (Sustainable Development Goal 3.8.1) is 27 out of 100, whereas the global average was 68 out of 100 in 2019⁹². Inaccessibility of some areas of the country, displacement, and compromised security coupled with a critical shortage of health workers present significant challenges in delivering health services. The level of human resources for health in Somalia (available doctors, nurses and midwives/10.000 population) was estimated at 4 for a population of 10 000⁹³. The minimum expected threshold according to WHO is 23 per 10 000 population⁹⁴.

A recent report found that healthcare services in Somalia are highly inadequate with the scarcity of all categories of health workers and a health workforce that lacks the skills, knowledge, legal instruments and the necessary resources to carry out their roles⁹⁵.

Infectious diseases dominate the disease burden in Somalia. However, non-communicable diseases are also on the rise. The under-five mortality rate was 114.6/1 000 live births in 2020⁹⁶, the highest rate in the world reported in 2020⁹⁷. Although the country has progressed in reducing maternal mortality, the rate remains high at 692/100 000 in 2020 despite the improvement, as compared to 732/100 000 in 2015⁹⁸.

1.2.3 Vaccine-preventable diseases, including poliovirus outbreaks

Controlling vaccine-preventable diseases is a challenge for the weak health system in Somalia. Nomadic populations, displacement, insecurity, and poor infrastructure creates further challenges for reaching optimal vaccination coverage among children. Routine immunization coverage remains very low in Somalia. Measles outbreaks are prevalent, in the period July to December 2021, Somalia recorded 2 908 measles cases, only surpassed worldwide by India and Nigeria⁹⁹.

Figure 27 below illustrates the trends of vaccination coverage rates for measles and polio in Somalia since 2000 as estimated by WHO/UNICEF (WUENIC: WHO/UNICEF estimated national immunization coverage)¹⁰⁰. The immunization coverage rate for one dose of measles vaccine (MCV1¹⁰¹) has stagnated at an estimated 46% since 2010. Likewise, polio vaccination coverage, third dose (POL3¹⁰²), has stagnated at an estimated 47% since 2012. IPV1¹⁰³ was introduced in Somalia in 2018 and has remained at an estimated 42% coverage up until 2020. Vaccination coverage rates are expected to be lower in hard-to-reach areas, but only scarce data exist to that extent.

Figure 27. Vaccination coverage of POL3, IPV1 and MCV1 in Somalia during 2000-2020, %

⁹² Global Health Observatory database: <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-index-of-service-coverage>

⁹³ the Somali human resources for health development policy 2016-2021

<https://www.somalimedicalarchives.org/media/attachments/2021/09/18/somalia-hrh-policy.pdf>

⁹⁴ WHO, Global Strategy on Human Resources for Health Workforce 2030 (2015),

<https://www.who.int/publications/i/item/9789241511131>

⁹⁵ HIPS & City University of Mogadishu, Somalia's Health Care system, a baseline study and human capital development strategy, May 2020, <http://www.heritageinstitute.org/wp-content/uploads/2020/05/Somalia-Healthcare-System-A-Baseline-Study-and-Human-Capital-Development-Strategy.pdf>

⁹⁶ Global Health Observatory: <https://www.who.int/data/gho/data/countries/country-details/GHO/somalia?countryProfileId=ea8d7ea2-131d-4531-ac4e-4f05115b3391>

⁹⁷ Global Health Observatory database: <https://www.who.int/data/gho/data/countries/country-details/GHO/somalia>

⁹⁸ The Somali Health & Demographic Survey 2020 <https://www.nbs.gov.so/somali-health-demographic-survey-2020/>

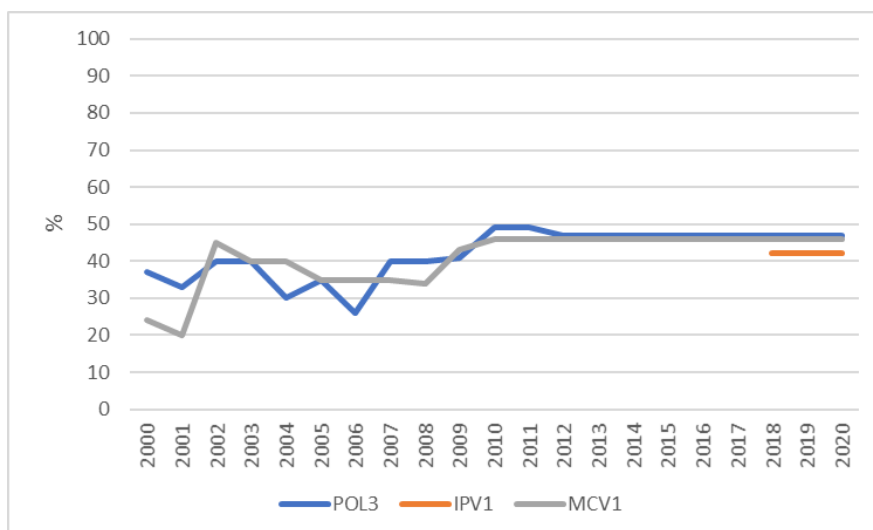
⁹⁹ <https://www.cdc.gov/globalhealth/measles/data/global-measles-outbreaks.html>

¹⁰⁰ WUENIC estimates: <https://www.who.int/teams/immunization-vaccines-and-biologicals/immunization-analysis-and-insights/global-monitoring/immunization-coverage/who-unicef-estimates-of-national-immunization-coverage>

¹⁰¹ Definition MCV1: Measles containing vaccine, 1 dose

¹⁰² Definition of POL3: oral polio vaccine, 3 doses

¹⁰³ Definition of IPV1: Inactivated Poliovirus Vaccine, 1st dose



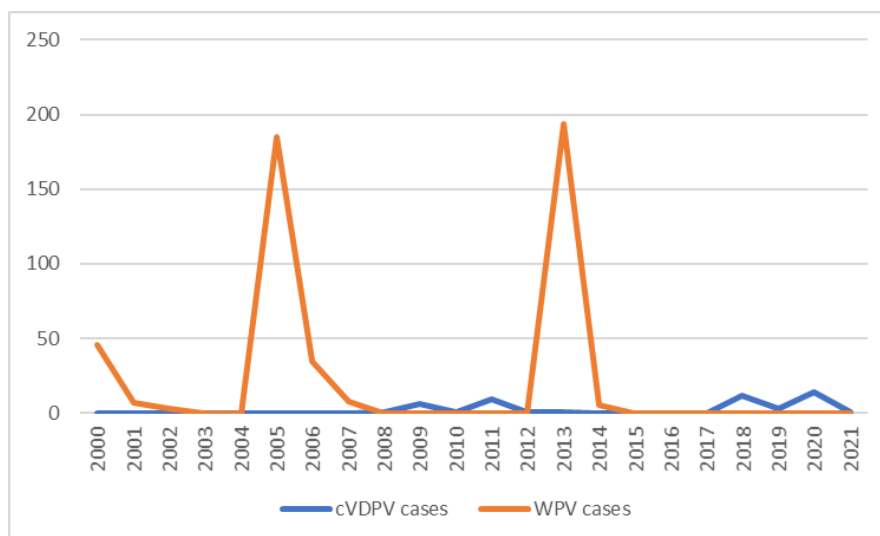
Abbreviations: IPV1: Inactivated Poliovirus Vaccine, 1st dose; POL3: oral polio vaccine, 3 doses; MCV1: Measles containing vaccine, 1 dose.

Acute flaccid paralysis (AFP) surveillance started in 1998 in Somalia and detected the first wild poliovirus (WPV) case in 1998¹⁰⁴. The trend of WPV and circulating vaccine-derived poliovirus (cVDPV) cases in the period 2000–2021 is depicted in Figure 2 below.

Figure 28. Number of poliovirus cases reported in Somalia during 2000–2021¹⁰⁵

¹⁰⁴ Mbaeyi C, Kamadjeu R, Mahamud A, Webeck J, Ehrhardt D, Mulugeta A. Progress toward polio eradication—Somalia, 1998–2013. *The Journal of infectious diseases*. 2014 Nov 1; 210(suppl_1): S173-80.

¹⁰⁵ GPEI data: <https://extranet.who.int/polis/public/CaseCount.aspx>



cVDPV: circulating vaccine-derived poliovirus cases; WPV: Wild poliovirus cases

The first wild poliovirus (WPV) outbreak detected in Somalia was successfully interrupted by 2002. Between 2005 to 2007, and again from 2013-2014 Somalia suffered from two imported WPV outbreaks, with 228 cases reported during the outbreak from 2005-2007¹⁰⁶ and 199 cases reported in 2013-2014. Between 2008-2013, there was a sustained detection of the cVDPV with a total of 19 cases being reported during this period.

The outbreak that occurred in 2013, affected several countries in the Horn of Africa and received global attention as it caused a serious setback to global polio eradication efforts, following its spill-over to neighbouring countries including Kenya and Ethiopia. This global attention drew increased investment, particularly in the polio infrastructure, as the Global Polio Eradication Initiative (GPEI) endeavoured to strengthen routine immunization. Frequent rounds of supplementary immunization activities were conducted to access the hard-to-reach, security-compromised areas, as well as nomadic populations to improve polio vaccination coverage¹⁰⁷. The last WPV case was reported in August 2014, but cVDPV cases have continued appearing since 2018, with outbreaks perceived to be traced back to undetected outbreaks since 2006.

The WHO has an extensive polio programme network in Somalia and relies heavily on GPEI funding. Activities of the polio programme extend beyond the scope of polio eradication and include routine immunization, outbreak response, social mobilization, and vaccine delivery¹⁰⁸.

1.2.4 Novel oral polio vaccine

The novel oral polio vaccine 2 (nOPV2) is a modified version of type 2 monovalent oral polio vaccine (OPV) which provides comparable protection against poliovirus while being more genetically stable and less likely to be associated with the emergence of cVDPV2 in low immunity settings. nOPV2 thus has the potential to be a significant tool to help stop outbreaks more sustainably. The vaccine was recommended for the “Emergency Use listing procedure” in November 2020 and was approved for wider use by the

¹⁰⁶ Mbaeyi C, Kamadjeu R, Mahamud A, Webeck J, Ehrhardt D, Mulugeta A. Progress toward polio eradication—Somalia, 1998–2013. *The Journal of infectious diseases*. 2014 Nov 1; 210(suppl_1): S173-80.

¹⁰⁷ Mbaeyi C, Kamadjeu R, Mahamud A, Webeck J, Ehrhardt D, Mulugeta A. Progress toward polio eradication—Somalia, 1998–2013. *The Journal of infectious diseases*. 2014 Nov 1; 210(suppl_1): S173-80; Haydarov R, Anand S, Frouws B, Toure B, Okiror S, Bhui BR. Evidence-based engagement of the Somali pastoralists of the Horn of Africa in polio immunization: overview of tracking, cross-border, operations, and communication strategies. *Global Health Communication*. 2016 Jan 1; 2(1):11-8.

¹⁰⁸ Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>

Strategic Advisory Group of Experts on Immunization in October 2021¹⁰⁹. Somalia is at the forefront of countries in the Eastern Mediterranean Region (EMR) to qualify for the use of the nOPV2 and is ready to use the vaccines as soon as they become available.

2 Methods and approach

The evaluation used a mixed-methods approach combining qualitative and quantitative methods for data collection and analysis. This involved a comprehensive document and data review, conducting key informant interviews (KII), focus group discussions (FGDs), and administration of an online survey. A systematic approach was applied to review various documents relevant to the evaluation and the list of documents is included in Annex 6.

2.1 Key informant interviews and focus group discussions

The document review was supplemented by primary data collection through KIIs and FGDs undertaken during the period 3-17 December 2021 with key stakeholders from the national and sub-national levels involved in the polio transition including senior government officials from the Ministry of Health (MoH), WHO Somalia country and state-level staff, UNICEF Staff and other key stakeholders involved in polio transition.

Twelve KIIs were conducted using a semi-structured interview guide that lists a predetermined set of questions relating to the design of the national polio transition plan and implementation of polio transition activities. In addition, two FGDs were conducted with three informants in each group. Informants in the FGDs were asked to reflect on the questions asked by the interviewer, provide their own comments, listen to what others in the group had to say and react to their observations. The list of all key informants and FGD participants is available in Annex 5.

2.2 Online survey

An online survey was administered to 12 potential key informants of whom 7 responded. Of the respondents, 4 represented WHO Somalia country office, 2 MoH, and 1 UNICEF. The survey included open and closed-end questions.

2.3 Data analysis and quality assurance

Several types of quantitative and qualitative analysis were conducted: trend analysis of quantitative data (e.g., WHO/UNICEF estimated national immunization coverage (WUENIC), GPEI data, Polio transition Dashboard indicators) and survey quantitative data were performed in excel. Data from KIIs, FGDs and online questionnaire qualitative material were analysed and organized according to theme, content and interpreted to inform findings.

Throughout the data analysis process, the evaluation team ensured validity and reliability through triangulation in compliance with United Nations Evaluation Group standards. The team leader ensured that data analysis was coherent and consistently guided by the EQ and corresponding matrix. Evidence from interviews and document reviews was recorded in a standardised matrix template based on the EQs. The information obtained through KIIs and FGDs was triangulated with results of the online survey and the document review.

The analysis process enabled systematic interrogation of associations between variables and relationships. It also facilitated triangulation of the evidence from the different sources and provided assurance of robustness and data quality. At every stage of the evaluation, quality assurance was guaranteed.

¹⁰⁹ GPEI, Preparing for nOPV2 Use: An overview on requirements for countries <https://polioeradication.org/wp-content/uploads/2021/10/nOPV2-Overview-Guidance.pdf>

2.4 Limitations

The country case study was restricted by time and scope to include relatively few informants. However, KIIs and FGDs were complemented by an online survey and a thorough review of documents and data. Furthermore, key informants were carefully selected to bring forward perceptions from a variety of stakeholders. The COVID-19 pandemic was the main limitation to this case country study. Many key informants were overwhelmed with responding to the COVID-19 pandemic in the country by the time of data collection, which delayed the process and limited the number of interviews within the set timeframe for data collection in Somalia. Due to COVID-19 restrictions, most interviews and FGDs were conducted virtually instead of face-to-face interaction.

Interpretation of report findings should take into consideration the relatively low number of key informants. Nevertheless, the evaluation team finds that important trends, challenges, opportunities and gaps have been presented in this report, with considerations for the way forward on polio transition in Somalia.

3 Findings

3.1 EQ1: Relevance of the Somalia polio transition plan

3.1.1 Sub-question: To what extent was the design of the national transition plan in Somalia relevant and appropriate to achieve its intended purpose and objectives and does it respond to the needs and priorities of Somalia?

Development of the polio transition plan for Somalia was largely a joint exercise of key partners (MoH, WHO, UNICEF) throughout the period 2018-2021, with polio transition planning beginning in Somalia in 2018. A draft plan was developed but implementation did not take place due to a combination of factors including inadequate resource allocation and the COVID-19 pandemic that was declared in the first quarter of 2020. A new plan has subsequently been drafted, preparations were taking place in 2021 and the plan is to start its actual implementation in 2022.

The federal MoH in Somalia specifically played a central role in contributing to the development of the national transition plan including the terms of reference for the integrated public health teams functions. However, engagement and acceptance of partners at subnational levels was less evident. Some key informants also mentioned that WHO was leading a collaborative process with the Ministry of Health involving technical committees and that technical staff in the federal MoH as well as the Federal Minister for Health had been consulted. Additional planning took place within the Regional Office.



The objective of the current polio transition plan for Somalia 2021-2024 is to ensure that the extensive polio investment made be sustained to benefit national health goals while also sustaining essential polio functions. Strategies employed by the plan include the transitioning of regional and district polio eradication officers to “Integrated regional and district Public Health Teams” with gradual assimilation of these positions into the federal MOH structure. Furthermore, village polio volunteers (VPVs) will be transitioned in a separate process to join the community health workers (CHWs) and will be trained to perform community-based surveillance among other functions in an expanded scope of work for CHWs. The overall aim of the transition plan is that by end of 2024, the essential polio functions will be run entirely by the government of Somalia in an integrated manner.

The transition plan has clear and measurable indicators although a detailed monitoring and evaluation (M&E) plan was not developed before the approval of the plan at the time of this review and none of the proposed indicators are measuring disaggregated data (for gender and geographical equity). Monitoring of the implementation is appropriately set to be carried out every 6 months and relevant milestones have been proposed. Yet, the targets and indicators appear ambitious. An example includes the target of reaching and sustaining a polio vaccination rate above 90%. The polio vaccination rate has stagnated below 50% for the ten years in Somalia, and thus reaching the goal of 90% coverage within the next 2 years may be difficult. In addition, and as the transition plan notes, the existing staff of the polio programme will be repurposed to be part of the integrated Public Health Teams (IPHT).

Over almost a decade the Somalia polio programme's expertise, knowledge and human resources have been utilized to implement district-based community outreach, which has built the capacity of the Somali health system¹¹⁰. In addition, physical assets, coordination mechanisms, planning procedures tools and data management systems for the polio programme have been developed over decades of field operations which can contribute to larger health goals in Somalia. An essential package of health service (EPHS) has also been developed.

The evaluation team finds that there are a number of key challenges to realizing full implementation of the Plan, noting planning efforts and documentation in the Plan, and employing relevant strategies to integrate polio staff and infrastructure, and engaging Federal MOH and UNICEF in the development of the transition plan. These include: overall very short timelines for the full transition to government; the uncertain financing of the plan, as well as key milestones and indicators of the transition plan which are not considered realistic given the very weak and fragile health system; continued political unrest, and stagnated very low coverage of polio vaccines in Somalia threatening the country's polio-free status.

Additionally, there were strong opinions from some few key informants on the whole premise of the development of a national transition plan for Somalia at this time, a process that could have been delayed given the risk of transition.

A recent reports by the Polio Transition Independent Monitoring Board (TIMB)¹¹¹ considered that "transitioning polio activities in Somalia is currently inconceivable, given the huge reliance on the polio network across Somalia for public health service delivery, particularly outbreak response and vaccine preventable disease surveillance, and ongoing vaccine-derived poliovirus outbreaks." The TIMB in its fourth report also concluded that "it would be extremely risky to force the pace of transition in Syria, Yemen and Somalia"¹¹².

3.1.2 Sub-question: To what extent does the plan align, complement, and link with other related national policies, plans, strategies, and programmatic guidance in a coherent manner?

The aim of Somalia's polio transition plan 2021 to 2024¹¹³ is to transfer polio immunization activities by integrating with already existing public health functions and capitalize on the polio infrastructure for broader health gains related to immunization, surveillance and health emergency response.

Polio transition efforts as laid out in the transition plan will also ensure that the country makes progress towards universal health coverage in line with the recently launched plan towards Universal Health Coverage (UHC)¹¹⁴, which included a strategy to prepare for, and respond to health emergencies in line with the International Health Regulations (2005) and the revised the Essential Package for Health Services¹¹⁵. The essential package of health care services (EPHS)¹¹⁶ 2020 includes services such as

¹¹⁰ Draft Polio transition plan for Somalia 2018-2019

³⁶ Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>; Polio Transition Independent Monitoring Board, 5th report. Building stronger resilience, Jan 2022, <https://www.who.int/publications/m/item/5th-Report-of-the-Polio-Transition-Independent-Monitoring-Board>

¹¹² Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>

¹¹³ Polio transition Plan for Somalia 2021-2024, (version updated 28.09.2021)

¹¹⁴ Somali Roadmap towards universal Health coverage, 2019-2023, https://extranet.who.int/countryplanningcycles/sites/default/files/country_docs/Somalia/final_draft_somali_roadmap_toward_s_uhc_2019-23-2.pdf

¹¹⁵ Stories from the field: Special series on the COVID-19 response – Somalia <https://www.uhcnpartnership.net/story-somalia/>

¹¹⁶ The Ministry of Health and Human Service, the Federal Government of Somalia. The Essential Package of Health Services (EPHS) Somalia, 2020, https://moh.gov.so/en/wp-content/uploads/2021/10/Somalia_EPHS_Executive_Action_Doc_web.pdf

immunization and outbreak surveillance. The Somalia Health Sector Strategic Plan II (HSSP II) 2017-2021¹¹⁷ also emphasizes improving routine immunization as a key strategic priority. The Health Sector Strategic Plan III is currently under development¹¹⁸.

The transition plan further aligns with the international goal of eradicating polio and sustaining a polio-free world centred on an integrated approach¹¹⁹. National authorities expressed that they have been pleased to see that the polio transition agenda in the country had enabled a more integrated thinking around polio. This is considered important by national authorities as it aligns better with the integrated efforts in the government health system as opposed to polio remaining a vertical and siloed programme in the country.

The Somalia polio transition plan is also aligned with the Somalia national development plan 2020 to 2024¹²⁰, which recognizes immunization and strengthening disease surveillance as a strategy to improving the health status of the population.

Overall, the transition plan is well aligned with international strategies and national strategies and policies with a common overall vision of improving Universal Health Coverage in Somalia.

3.2 EQ2: Effectiveness and efficiency in the implementation of the Somalia polio transition plan

3.2.1 Sub-question: To what extent is Somalia on course to achieving its results across the three objectives of the strategic action plan on polio transition?

Development of the national polio transition plan

A key process indicator of the Strategic Action Plan on polio transition is the development and endorsement of national polio transition plans across all polio transition priority countries. Polio transition planning in Somalia began in 2018 and was conducted jointly by the GPEI partners in the country (WHO, Federal MOH, UNICEF and the core group)¹²¹. According to the Somali polio transition plan, a draft transition plan was developed in March 2019, but the transition process was slow initially, with the COVID-19 pandemic, cVDPV outbreaks and lack of funding delaying further progress. In May 2021, high level consultations involving the leadership of the Federal Ministry of Health and WHO (Regional and Country Offices) were held, and the country's transition plan was updated and endorsed in August 2021. Since August 2021, meetings and preparations to start implementation of the plan have been undertaken. In addition, WHO/MOH jointly developed ToRs defining roles and reporting mechanism of IPHTs. Implementation began with recruitment of third party firm, opening up/advertising of regional and district positions being transitioned, shortlisting of applicants etc.

¹¹⁷ Second Phase Health Sector Strategic Plan 2017 – 2021. Somalia Ministry of Health and Human Services <https://www.somalimedicalarchives.org/media/attachments/2021/09/18/fgs-hssp-ii-2017-2021---final.pdf>

¹¹⁸ https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/hssp_iii_concept_note.pdf

¹¹⁹ GPEI strategy 2022-2026, Delivering on a promise <https://polioeradication.org/gpei-strategy-2022-2026/>

¹²⁰ Somalia national development plans 2020-2024, <https://mop.gov.so/wp-content/uploads/2019/12/NDP-9-2020-2024.pdf>

¹²¹ Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

Progress against outcome indicators of the Strategic Action Plan on Polio Transition, 2018-2021

Table 9 presents the indicators of the Strategic Action Plan on Polio Transition endorsed in 2018 and the progress made against these indicators for Somalia. Overall, vaccination coverage for polio and measles and Acute Flaccid Paralysis (AFP) surveillance from 2018 to 2020 is more or less unchanged. AFP surveillance indicators remain high and above performance targets, whereas vaccination coverage rates remain substantially below targets.

The AFP surveillance system in Somalia is generally very sensitive and with very good performance. AFP output indicator targets have been exceeded across all years since 2018 with only small declines noted in the pandemic year 2020. This is a major achievement, especially given the seriously compromised circumstances of COVID-19 restrictions, insecurity, inaccessibility etc. In 2017, environmental surveillance was added in response to the cVDPV outbreaks, and by 2020, a total of 10 sites across the country were collecting samples. This is an important strategy to monitor for cVDPV outbreaks.

Nevertheless, a constant low childhood immunization coverage is evident between 2018 and 2021, with country coverage level estimates of IPV1 at 42%, POL3 at 47% and MCV1 at 46%, far below the targets of 90%. WUENIC coverage estimates of measles containing vaccine, two doses, (MCV2) estimates are not available for Somalia.

Table 9: Performance and output indicators

Objective A: Sustain a polio free world after eradication					
<ul style="list-style-type: none"> High coverage of inactivated polio vaccine High quality AFP surveillance Effective responses to polio events 					
Performance indicators					
<ul style="list-style-type: none"> >90% coverage with >2 doses of IPV achieved in all countries with polio essential facilities that contain wild poliovirus Coverage with bivalent OPV > 90% At least one case of non-polio AFP should be detected annually/100 000 population aged less than 15 years. In endemic regions this rate should be 2/100 000 % of AFP cases with adequate stool specimens > 80% 					
Output indicators	2018	2019	2020	2021	Progress
1.1 Coverage with inactivated poliovirus vaccine (IPV)*	42%	42%	42%	N/A	Off track
1.2 Coverage with bivalent OPV*	47%	47%	47%	N/A	Off track
1.3 Rate of non-polio AFP/100 000 children < 5 years**	7.3	7.7	7.6	7.5	On track
1.4 Percentage of AFP cases with two adequate stool specimens**	98%	96%	95%	96%	On track
1.5 Polio outbreaks (cVDPV)**	12	3	14	1	Off track
1.6 Number of sites/number of environmental surveillance samples per site***	5/84	4/23	10/9	N/A	On track

Objective B: Strengthen immunization systems and surveillance					
<ul style="list-style-type: none"> Increased coverage with measles antigen-containing vaccine and rubella-containing vaccine Countries with regular reporting of vaccine-preventable disease surveillance data from districts Government expenditure on routine immunization per newborn Expansion of surveillance and laboratory system at country level 					
Performance indicators					

Objective B: Strengthen immunization systems and surveillance					
<ul style="list-style-type: none"> Number and proportion of countries providing two doses of measles antigen-containing vaccine through routine services with coverage levels of second dose of measles antigen-containing vaccine and rubella-containing vaccine >90% nationally and >80% in all districts. 					
Output indicators	2018	2019	2020	2021	Progress
2.1 MCV1 Coverage (%)*	46%	46%	46%	N/A	Off track
2.2 MCV2 Coverage (%)*	N/A	N/A	N/A	N/A	N/A
2.3 % of districts with MCV2 > 80%***	N/A	N/A	N/A	N/A	N/A
2.4 Government expenditure on routine immunization in US\$ per newborn***	N/A	N/A	N/A	N/A	N/A

Objective C: Strengthen emergency preparedness, detection, and response capacity (International Health Regulations (IHR))					
Performance indicators					
<ul style="list-style-type: none"> Health events detected, and risk assessed early in health emergencies Populations affected by health emergencies have access to essential life-saving preventive and curative services and interventions Average value of the core capacity indicators of the IHR. 					
Output indicators	2018	2019	2020	2021	Progress
3.1 Average % of IHR self-assessment annual reporting of laboratory core capacity***	27%	N/A	N/A	N/A	N/A
3.2 Average % of IHR self-assessment annual reporting of surveillance core capacity***	50%	N/A	N/A	N/A	N/A
3.3 Average % of IHR self-assessment annual reporting of emergency framework core capacity***	20%	N/A	N/A	N/A	N/A

Sources:

*[WUENIC estimates](#), accessed 3 February 2022

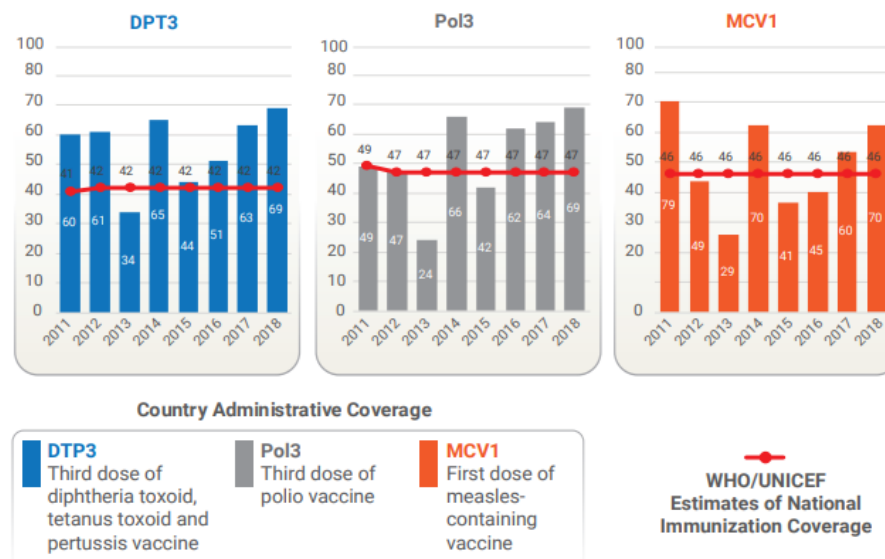
**[GPEI data](#) accessed 4 March 2022,

***[Polio transition Dashboard](#) accessed 26 February 2022

The country's reported administrative coverage data varies however significantly from the WHO/UNICEF estimated national immunization coverage (WUENIC), with significantly higher estimates. Administrative coverage data are reported by national authorities and are based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). This data may be biased by inaccurate numerator and/or denominator data and the WUENIC estimates are based on population-based survey. The WHO and UNICEF estimates of national immunization coverage are based on data and information that are of varying, and, in some instances, unknown quality¹²².

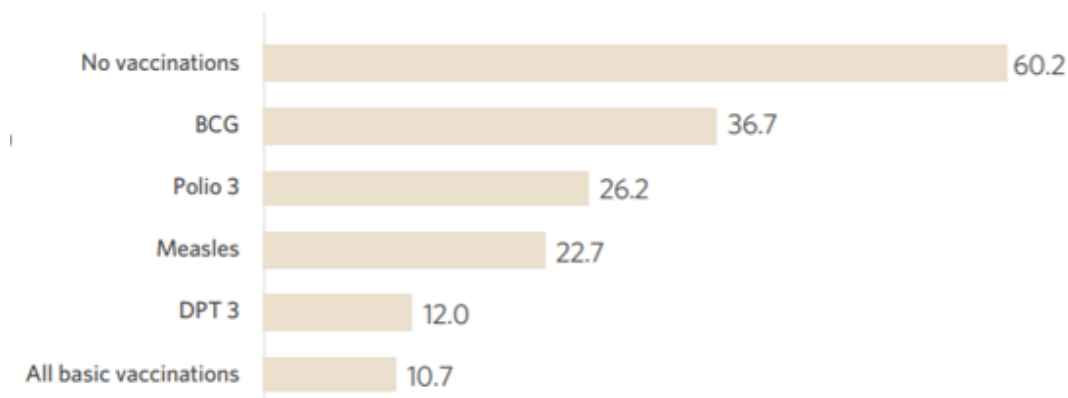
¹²² [WUENIC Somalia: WHO and UNICEF estimates of immunization coverage: 2020 revision](#)

Figure 29. Administrative vaccine coverage data and WUENIC estimated coverage data



Actual MCV1 and POL3 coverage rates might be even lower than estimated by WHO considering results of the recent demographic health survey. The Somali Health and Demographic Survey (SHDS) from 2020¹²³ interviewed 15 826 households (2 240 in the age group 12-23 months) in urban, rural and nomadic populations across the country and reported very low national immunization coverage rates, with diphtheria, pertussis and tetanus (DPT3) coverage of 12%, measles (MCV1) coverage of 22.7%, and oral polio vaccine (POL3) coverage at 26.2% (Figure 30). However, survey results are based mostly on respondent recall of vaccination history given only 4% with available documented evidence in a home-based record¹²⁴.

Figure 30. Vaccination coverage for children aged 12-23 months, Somalia 2020¹²⁵



Notes for figure:

DTP 3: three doses of the diphtheria, pertussis and tetanus vaccine; Polio3: at least three doses of the polio vaccine; measles: one dose of the measles vaccine; BCG: Bacillus Calmette-Guerin (vaccination against tuberculosis).

¹²³ The Somali Health & Demographic Survey 2020 <https://www.nbs.gov.so/somali-health-demographic-survey-2020/>

¹²⁴ https://cdn.who.int/media/docs/default-source/country-profiles/immunization/immunization_som_2021.pdf?sfvrsn=34eaf819_9&download=true

¹²⁵ The Somali Health & Demographic Survey 2020 <https://www.nbs.gov.so/somali-health-demographic-survey-2020/>

Discussions are ongoing in Somalia on improving immunization data systems, data recording and data management¹²⁶ which will be critical to guide actions and strategic approaches.

The last WPV case in Somalia was reported in August 2014. After three years with no reported poliovirus cases in Somalia, cVDPV cases were again detected from 2018 and up until 2021, with 12 cases in 2018, 3 in 2019, 14 in 2020 and only 1 case in 2021¹²⁷. Importation of cVDPV into Kenya and Ethiopia has further been reported since 2018¹²⁸. Output indicators related to strengthening emergency preparedness, detection, and response capacity, supporting implementation of the IHR, has not been reported since 2018, making progress difficult to track. (Table 9).

Challenges to ensuring high vaccination coverage

Several factors have contributed to the low vaccination coverage, mainly the weak health system and limited immunization services available for rural and nomadic populations and inaccessible districts.

Most immunization services (74%) are delivered through health clinics, as only 10% of all health facilities offer vaccination outreach. Routine immunization services are delivered at maternal and child health centres but with varying quality due to the inadequate and uneven mix and distribution of the skilled health workforce, and the high turnover. Around 66% of national health facilities provide immunization services, and services are provided more often at urban health facilities compared to rural health facilities (64% and 25% respectively)¹²⁹. Furthermore, a stock-out of OPV was reported in 2020 for a 2-month period at national and subnational levels¹³⁰.

Geographic inequity clearly persists, with continuing challenges to reach children in security-compromised areas, hard-to-reach areas, and nomadic children. Somalia has the highest reported proportion of polio zero-dose children among all 20 polio transition priority countries in 2020 reaching 20% in the period July-December 2020¹³¹. This is explored further in Section 3.2.2.

Competing health priorities for parents other than immunization of children was also mentioned by key informants as a barrier to achieving high immunization coverage.

Number of WHO positions in Somalia funded by GPEI

WHO in Somalia has staff at national, zonal, regional, district and village levels who coordinate and conduct surveillance, vaccination and other polio programme activities, at their respective level¹³².

As of September 2021, the WHO Somalia country office had **235** positions funded by the Global Polio Eradication Initiative¹³³, of these **19 were “WHO staff”** (either temporary or long-terms contracts) and the remaining were on other contract types (Local Individual Contractor Agreement (LICA), and Agreements for Performance of Work (APW)). The Transition Plan has estimated the minimum level for sustaining essential polio functions at **218 positions (down from 235 positions)**, with slight declines at district level (from: 149 district positions to 146).

¹²⁶ Somalia: WHO and UNICEF estimates of immunization coverage: 2020 revision https://cdn.who.int/media/docs/default-source/country-profiles/immunization/immunization_som_2021.pdf?sfvrsn=34eaf819_9&download=true

¹²⁷ GPEI data: <https://extranet.who.int/polis/public/CaseCount.aspx>

¹²⁸ Polio transition plan for Somalia 2021-2024, (version updated 28.09.2021)

¹²⁹ IFRC, Polio program transition in Somalia: an assessment of risks and opportunities, 2020

¹³⁰ https://cdn.who.int/media/docs/default-source/country-profiles/immunization/immunization_som_2021.pdf?sfvrsn=34eaf819_9&download=true

¹³¹ GPEI, 2020 Annual report, Semi-annual status updates, <https://polioeradication.org/wp-content/uploads/2021/08/GPEI-2020-Annual-Report-ISBN-9789240030763.pdf>

¹³² Polio Transition Plan for Somalia 2021-2024 (version updated 28.09.2021)

¹³³ WHO Somalia polio transition committee meeting 16 Sep 2021

The proposed human resource structure is:

1. Staff positions funded by Polio: 19;
2. LICA positions: 38 (25 Regional Public Health Officers and 13 Operations Team); and,
3. APW contracts: 161 (146 District Public Health Officers, 7 SSO, 4 SIA, 3 Governmental Focal Points and 1 Surveillance).

The total annual budget for these positions is US\$ 4.3 million¹³⁴.

In addition, **448** VPVs spearhead surveillance at the community level and **220** transit point vaccinators offer OPV at border points. The total annual budget for these community workers is about US\$ 800 000¹³⁵.

Beyond polio-specific responses, the GPEI-funded personnel perform critical tasks in the strengthening of routine immunization programmes and the control of measles, and other VPDs. Activities include surveillance, micro planning, monitoring of routine immunization activities, and support of district immunization task teams.

3.2.2 Sub-question: What have been the key contextual factors that have affected the design, endorsement and implementation status of the national plan on polio transition in Somalia?

COVID-19

The COVID-19 pandemic further exacerbated poverty rates in the country and has forced the attention of resources towards the pandemic response since March 2020. Key informants interviewed described in detail the impact of COVID-19 including the negative impact of the pandemic on the fragile health system including the polio programme. Immunization efforts were suspended in the country in large parts of 2020 and surveillance was challenging. The COVID-19 outbreak exposed a weakness in protecting national health security because the government frontline health workforce lacks the skills and basic field epidemiology competencies required for detection, surveillance and response to large outbreaks and other public health emergencies¹³⁶. Due to the effects of COVID-19 on routine immunization, about 105 000 children did not receive the pentavalent 1 vaccine, 169 000 children did not complete three doses of pentavalent and 186 000 children aged under one year missed their first measles dose¹³⁷.

In relation to polio transition, key informants reported that MoH and other partners were focusing on COVID-19 responses and the discussions around polio transition stalled. Furthermore, the already extremely limited fiscal space of the government to commit resources to sustain polio assets diminished with the COVID pandemic.

However, while the COVID-19 pandemic delayed the implementation of the transition plan, the efforts of the polio network in responding to the pandemic has proven its critical role in supporting health emergencies in a fragile country such as Somalia. The polio network is the largest public health infrastructure in the country and has been providing the core of the national COVID-19 response.

During the early pandemic response, the Somalia polio team lead was assigned as the country incident manager for COVID-19 response and the polio network has been leading on aspects such as COVID-19 surveillance, contact tracing, data support, collection and transportation of samples for laboratory

¹³⁴ WHO Somalia polio transition committee meeting 16 Sep 2021

¹³⁵ Transition Plan 2018-2019, Somalia, August 2018

¹³⁶ WHO Somalia, Shaping National health security in Somalia through field epidemiology training, Oct 2021, http://www.emro.who.int/images/stories/somalia/documents/policy_brief_shaping_national_health_security_in_somalia_october_2021.pdf?ua=1&ua=1

¹³⁷ WHO's work in pictures, 2020, Saving lives and protecting health: acceleration, innovation and impact, WHO Somalia country office http://www.emro.who.int/images/stories/somalia/documents/who_somalia_work_in_pictures_2021.pdf?ua=1

testing, training of trainers for vaccination and recruiting vaccinators^{138,139,140}. To that effect, community health workers from the polio programme who are trusted by the communities and who are able to reach large parts of the population had been key to an effective COVID-19 response¹⁴¹.

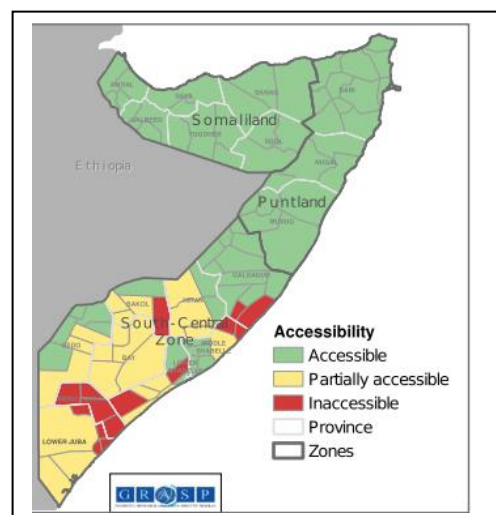
Inaccessibility, insecurity and nomadic populations

Pockets of zero-dose and under-immunized children exist particularly in inaccessible areas of Somalia and in hard-to-reach communities. Inaccessibility remains a significant constraint to quality outbreak response.

Figure 5 presents a map of inaccessible and accessible areas in Somalia as of 2020. In 2020, it was estimated that 250 000 children under 5 years were residing in inaccessible areas, representing 8.1% of the target population.

Since 2017, Somalia's polio programme has been engaging with local elders to negotiate access to inaccessible districts as one of the strategies to ensure that all children are reached with polio vaccines. However, 14 districts of the country remain inaccessible^{142,143} and obstruction of vaccination campaigns by Non-State Actors have been reported in conflict-affected areas¹⁴⁴. Transit vaccination points vaccinators have been employed to vaccinate inaccessible populations in border areas. Surveillance activities are continued through VPVs in the inaccessible areas and by 2018, 40% of the total number of AFP cases were reported in inaccessible areas¹⁴⁵. WHO staff are not able to conduct supporting supervision or to verify the work that has been done by community health workers and this reportedly creates gaps that are very difficult to deal with. It is however important to note that the transition plan proposes that these inaccessible districts be exempted from the transition process as this would result in complete loss of access gained, and MoH staff would not be able to operate in these areas.

Figure 31. Inaccessible and accessible areas, Somalia 2020



cVDPV outbreaks

Ongoing type 2 cVDPV outbreaks in Somalia have been reported since early 2018, however with only 1 case being reported in 2021 (12 cases reported in 2018, 3 in 2019 and 14 in 2020). cVDPV cases have been detected in both accessible and inaccessible areas. It is reported that COVID-19 restrictions might have affected case detection and results remain fragile due to the sustained low coverage of polio vaccination in the country.

¹³⁸ Global Polio Eradication Initiative. Somalia's polio teams help combat COVID-19: personnel from the country's long running polio programme have been trained to detect COVID-19 cases. Geneva: World Health Organization; 2020 <http://polioeradication.org/news-post/somalias-polio-teams-help-combat-covid-19>

¹³⁹ WHO Member State information session 13 Jan 2022

¹⁴⁰ WHO. Contributions of the polio network to the COVID-19 response: turning the challenge into an opportunity for polio transition. Geneva: World Health Organization; 2020, <https://apps.who.int/iris/bitstream/handle/10665/336261/9789240011533-eng.pdf?sequence=1&isAllowed=y>

¹⁴¹ WHO Somalia: working with an expanded network of national and international partners to address COVID-19, COVID-19: WHO's Action in Countries, May 2020., <https://www.who.int/publications/m/item/somalia-working-with-an-expanded-network-of-national-and-international-partners-to-address-covid-19>

¹⁴² Assessment of in-Country Capacity to Maintain Communicable Disease Surveillance and Response Services after Polio Eradication—Somalia. Vaccine 38, no. 5 (2020): 1220–24.

¹⁴³ Polio Transition plan for Somalia 2021-2024

¹⁴⁴ Polio Transition Independent Monitoring Board, 5th report. Building stronger resilience, Jan 2022, <https://www.who.int/publications/m/item/5th-Report-of-the-Polio-Transition-Independent-Monitoring-Board>

¹⁴⁵ Draft Polio transition Plan 2018-2019, Somalia

Several key informants expressed that the country was still in polio outbreak response mode due to the persisting cVDPV outbreaks which had delayed polio transition implementation.

Engagement with communities and civil society

After the polio outbreak of 2013, an extensive network of VPV was established to strengthen AFP surveillance and support polio vaccination campaigns at village level, with a focus on inaccessible areas. WHO cannot directly travel to security compromised areas, and therefore has built a widely accepted polio vaccination network trusted by the communities. In total, more than 650 VPV/transit point vaccinators are engaged in polio vaccinations, surveillance, and outbreak responses. The community network aims to ensure polio vaccine is delivered in the most culturally appropriate manner possible, and ideally alongside a broader intervention of health delivery. Such approaches have been shown to dramatically increase vaccine uptake and diffuse mistrust¹⁴⁶.

Support from civil society organisations (CSOs) is mandated in the EPHS strategy, to help make immunization an integral part of community-level health service, yet this is not fully utilised. A recent report¹⁴⁷ identified closer collaboration with CSOs as a major opportunity for polio transition in Somalia, including scaled-up CSO engagement in advocacy and technical support to fill gaps and promote synergies between remaining polio activities and other health programmes.

Health system structure

The split federal nature of the country, fragmentation of the country's administrative health system structure, and conflict affected areas, create further challenges for health policy making, including polio transition. Attention is needed to further communicating, refining and disseminating the current national transition plan across all levels of government and with various stakeholders. Discussion around these issues are yet to take place. The current transition plan is thus only recognized and endorsed by the Federal Ministry of Health.

3.2.3 Sub-question: To what extent is implementation of the national polio transition plan likely to lead to successful polio transition in Somalia based on optimal use of resources?

Key achievements

- The three-phased Somalia polio transition plan was updated and endorsed in August 2021 with government and key stakeholder engagement.
- WHO/MoH jointly developed terms of references defining roles and reporting mechanism of IPHTs.
- The plan focuses on expanding functions of regional and district polio officers to a wider range of public health functions supporting polio, Expanded Programme on Immunization (EPI), health emergency and primary health care.
- Optimum number of staff required for sustaining essential polio functions are 25 Regional Public Health Officers and 146 District Public Health Officers. Total number of positions reduced from 235 to 218.
- The roles and responsibilities of WHO and UNICEF in supporting transition has been very clear and effectively implemented
- Increased focus on integration of service delivery
- Response to COVID-19 using polio assets (see section 3.2.2).

¹⁴⁶ GPEI. Global Polio Eradication Initiative investment case 2019–2023. Geneva: World Health Organization; 2019 (WHO/POLIO/19.06). <https://polioeradication.org/wp-content/uploads/2019/08/Polio-InvestmentCase-Report-20190819.pdf>

¹⁴⁷ International Federation of Red Cross and Red Crescent Societies (IFRC). Polio program transition in Somalia: an assessment of risks and opportunities- Leveraging civil society resources to scale up immunization, January 2020. <https://reliefweb.int/report/somalia/polio-program-transition-somalia-assessment-risks-and-opportunities-leveraging-civil>

Transition phases

The strategy of the Somalia polio transition plan¹⁴⁸ includes integration of the polio programme within an integrated team of health emergency, EPI and polio staff. The plan included three-phases to integrate staff and build capacity at the provincial and district levels to provide broader health services coverage and to strengthen primary health care. The plan aims for a complete transition of functions into the national health system by 2024 as visualised below.

Figure 32. Transition phases¹⁴⁹



The first phase will be implemented between January and December 2022, including a detailed mapping of human resources including mapping of capacities, skills, and experience of WHO-funded personnel, alongside organizational adjustments for IPHT operationalization (i.e., clarifying reporting lines and management responsibilities) defining programmatic priorities for integration, of the staff and capacity building. The staff under the integrated structure will be accountable to MoH but will have a dual reporting role to WHO¹⁵⁰.

In **the second phase**, further transfer of functions to the government are expected to be implemented over a period of 12 months beginning in January 2023. Focus will be given to (i) administrative adjustments in government systems to integrate health functions supported by WHO, such as essential polio functions; (ii) capacity building of the government systems (e.g., sufficient skilled human resources at management level, data use, and reporting); and (iii) resource mobilization to sustain the integrated health functions. During the latter phase, management and accountability of staff will be transferred to government. However, WHO will continue to provide oversight to ensure that quality of essential polio functions is not compromised during the transition process¹⁵¹.

In **the third phase**, to begin as of January 2024, the government will take full responsibility of maintaining essential functions, including immunization, integrated disease surveillance and outbreak preparedness and response. According to the plan, government is expected to take over salary payments of district and regional public health functions as of 2024. WHO will provide technical support¹⁵².

¹⁴⁸ Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

¹⁴⁹ Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

¹⁵⁰ Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

¹⁵¹ Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

¹⁵² Polio Transition plan for Somalia 2021-2024, (version updated 28.09.2021)

So far, transition activities have mostly been related to the preparations and discussions of the plan. Mapping under phase 1 has been started and from January 2022, emphasis is placed on concretising planning and strategies to achieve transition objectives. Capacity building for integrated public health teams was also planned to start in January 2022. Delays in finalizing the current transition plan for Somalia were noted. Some informants expressed that the country was in a cVDPV outbreak response mode and not ready to talk about transition.

The Federal government as well as state MoH executives clearly understand the opportunities and challenges of the polio transition plan and generally feels supported by WHO and UNICEF. Most informants expressed that there is a clear role division between UNICEF and WHO on polio transition planning, and noted that there is much greater capacity at WHO. A few informants however noted that there was limited effective governance actively working on the implementation of the transition. Furthermore, the implementation modalities among health authorities and partners were not clearly illustrated in the plan. A detailed work plan with resources and clear outputs supporting the governance structure should be considered. This will potentially require a dedicated secretariat to ensure the transition to run smoothly.

Informants mentioned that a complete integration of the vertical polio programme in WHO at various levels (WHO headquarters, regional and country offices), had to be addressed as an urgent priority to support the integration of programmes in a sustainable manner.

The AFP surveillance system has been strengthened over the last decade through innovative strategies, including community surveillance, AFP surveillance, case validation, zero-dose investigation, contact and healthy children sampling, geo-coding of AFP cases, and surveillance training and reviews.

The strength of the polio programme has been the human capital at regional and district levels, which have been at the forefront of polio eradication efforts (including planning and implementation of vaccination campaigns and AFP/environmental surveillance). The continuity of these efforts and delivery of essential polio functions will be dependent on retention of this core team.

According to the transition plan, transitioning of human resources has been agreed upon by WHO and federal MoH. The regional and district polio eradication officers will be transitioned to regional and district public health officers with integrated functions. Terms of references have been developed and approved in a joint venture by the federal MoH and WHO, which define new roles and responsibilities, supervisory and reporting structures during the period of transition.. The teams will work as part of the regional and district health management teams respectively and be supervised by regional and district medical officers. The recruitment for these positions was outsourced to an independent third-party agency. Advertising and short-listing of potential candidates were completed before the end of 2021. WHO and the Federal MoH will assign a joint technical team of up-to four persons to oversee this process, to ensure the due process is followed. According to key informants some polio funded staff were worried about job security which reportedly affected the morale and possibly performance of some staff due to unclarity of their future and job assurance.

Increased focus on integration of service delivery is evident across the country, large-scale integrated campaigns to administer measles vaccines, bivalent OPV, vitamin A and deworming tablets to children have been conducted in 2020 reaching over 1 million children with these services¹⁵³. In addition, AFP surveillance, currently being conducted in 933 sites, has been integrated with measles case-based surveillance. The community-based polio network has thus been able to detect other disease outbreaks

¹⁵³ WHO's work in pictures 2020, Saving lives and protecting health: acceleration, innovation and impact, http://www.emro.who.int/images/stories/somalia/documents/who_somalia_work_in_pictures_2021.pdf?ua=1

including measles and acute watery diarrhoea, prompting a rapid response. A recent TIMB report¹⁵⁴ acknowledges the role that WHO and other health agencies have played in running the health system and acknowledges the significant contribution of the polio infrastructure to other national health priorities. The report also identifies the reliance on the polio network across Somalia for public health service delivery, particularly outbreak response and VPD surveillance, and the ongoing efforts to control vaccine-derived poliovirus outbreaks¹⁵⁵.

Gender and equity issues

Major equity concerns however persists in relation to vaccination coverage. The Somali Health and Demographic survey from 2020 showed widespread inequity in vaccination coverage among children, reporting that whereas 19% of children in urban areas had received all basic vaccinations (Pentavalent), less than 1% of children in nomadic areas had received all basic vaccinations¹⁵⁶. In the period July-December 2020, the proportion of polio zero-dose children was 20% (above the target of less than 10%)¹⁵⁷, representing the highest proportion of polio zero-dose children of all polio transition priority countries.

According to key informants there are no gender barriers in Somalia in terms of access to polio vaccination. GPEI data from 2020¹⁵⁸ reflect that some gender bias may be noted, which however varied across periods (Figure 33). In the first 6 months of 2020, more females than males were likely to be polio zero-dose children (16.8% vs 9.5%) whereas in the last six months of 2020, more males than females were likely to be zero-dose children (27.1% vs 15%) (Figure 33). This points to subnational differences and should prompt due attention to potential gender barriers in various parts of the country.

The document review found that Somali women are empowered through the polio programme, as 65% of polio field staff are women¹⁵⁹. Informants expressed that polio transition might be an opportunity to have even more females on board since they have easier access to communities than their male colleagues.

Figure 33. Gender sensitive indicators¹⁶⁰

COUNTRY MONITORING THROUGH GENDER-SENSITIVE INDICATORS

Outcome	Indicator	Target	Jan-Jun 2020		Jul-Dec 2020	
			Female	Male	Female	Male
Equal doses received	Median # doses F/M	ns	5	6	5	0.5
	% F/M 0-dose	ns	16.88	9.52	15	27.12
	% F/M 3+ doses	ns	76.62	79.76	76.67	64.41
Equal timeliness of disease notification	Median # days disease notification	ns	3	3	3	3
	% F/M <= 3 days	ns	60.42	57.39	56.96	52.33

Notes for figure: F= female, M=male

¹⁵⁴ Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>

¹⁵⁵ Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>

¹⁵⁶ The Somali Health & Demographic Survey 2020 <https://www.nbs.gov.so/somali-health-demographic-survey-2020/>

¹⁵⁷ GPEI-2020-Annual-Report-ISBN-9789240030763.pdf (polioeradication.org)

¹⁵⁸ GPEI, 2020 Annual report, Semi-annual status updates, <https://polioeradication.org/wp-content/uploads/2021/08/GPEI-2020-Annual-Report-ISBN-9789240030763.pdf>

¹⁵⁹ WHO in Somalia, Polio eradication website: <http://www.emro.who.int/somalia/priority-areas/polio-eradication.html>

¹⁶⁰ GPEI, 2020 Annual report, Semi-annual status updates, <https://polioeradication.org/wp-content/uploads/2021/08/GPEI-2020-Annual-Report-ISBN-9789240030763.pdf>

3.3 EQ3: Potential to create and/or contribute to sustainable changes

3.3.1 Sub-question: To what extent is the implementation of the national transition plan likely to contribute to sustainable change in relation to the three key objectives of the Action Plan and on broader outcomes and anticipated impact indicators?

Polio transition in Somalia has the potential to make significant contributions to three broad areas identified in national health priorities. These include key areas where polio assets are already directly supporting, as well as areas where the existing polio assets can be expected to strengthen the health system in the future: (1) Integrated disease surveillance and response; (2) Basic health service delivery and universal health coverage (including the EPI); and (3) Public health emergencies and response.

Several informants emphasised the need to have a **robust integrated disease surveillance and response (IDSR) system** bringing both polio surveillance, VPD, surveillance of selected priority diseases including non-Communicable diseases, injuries and emergency health surveillance under one umbrella in the existing public health IDSR system. Somalia's only functioning emergency health surveillance system, early warning, alert and response network, is reportedly weak and fragmented with very low population coverage¹⁶¹ and a key priority mentioned in the polio transition plan is to transition AFP and early warning, alert and response network surveillance systems to the IDSR system. This synergistic approach carries great potential for improving in a sustainable way effectiveness and efficiencies of disease surveillance.

Informants noted that the **roll-out of the public health teams and integrated activities will augment the health system in Somalia and has the potential to improve universal health coverage**. The strength of the polio programme has been the human capital at regional and district levels, who have been at the forefront of polio eradication efforts (including planning and implementation of vaccination campaign, and AFP/environmental surveillance). The polio programme's health workforce understands, knows, and is trusted by their communities; they are highly trained and have the capacity to respond to other disease outbreaks, and to help respond to other emergencies and natural disasters. In addition, they enjoy wide accessibility at district level and can thus improve access to basic health services in the country.

The contribution of the polio network to the response to COVID-19 clearly demonstrates its value to improve health security. **This justifies argument for sustaining essential polio structures for national health security** (see also section 3.2.2). It will now be important to properly document this success story, apply lessons to polio transition planning and to strategically use them for fundraising to sustain essential polio functions in Somalia.

Resource challenges

Somalia's health system heavily depends on external funding and the polio programme has been funded almost entirely by GPEI. The polio and immunization programmes are supported exclusively by the Global Alliance for Vaccines and Immunization (Gavi) and GPEI funds, routed primarily through WHO and UNICEF. The GPEI budget for WHO in Somalia provided for more than US\$ 57 million between 2017 and 2021 (Table 10). Funding decreased between 2017 and 2019, then increased markedly in 2020 and decreased again to reach 2017 levels in 2021.

Towards the end of 2020, at global level, WHO accelerated the pace on polio transition due to the expected funding decrease from GPEI and started the process of transferring essential public health functions and capacity from the GPEI budget to WHO's base budget for 2022–2023. GPEI had planned to

¹⁶¹ WHO Somalia, Shaping National health security in Somalia through field epidemiology training, Oct 2021, http://www.emro.who.int/images/stories/somalia/documents/policy_brief_shaping_national_health_security_in_somalia_october_2021.pdf?ua=1&ua=1

withdraw their funding to Somalia from 2022, but GPEI then communicated in July 2021 that they will sustain financial support for another two years (2022-2023). This was based on a risk assessment performed by GPEI in 2021, in which 11 “polio high-risk countries”, including Somalia, were placed on a deferred polio transition path and GPEI funding to Somalia was largely reinstated (Table 10). The budget allocation for 2022 reflects the 2022 GPEI budget, as approved by the GPEI Polio Oversight Board on 27 October 2021, representing a 31% decrease compared to 2021¹⁶².

Table 10. Somalia, WHO GPEI budgets 2018-2022, US\$

Activities	2017	2018 ¹⁶³	2019 ¹⁶⁴	2020 ¹⁶⁵	2021 ¹⁶⁶	2022 ¹⁶⁷
Campaign operations	5 952 000	3 627 000	2 627 000	5 688 000	4 692 000	2 502 000
Surveillance	2 834 000	2 720 000	2 720 000	2 448 000	1 180 000	4 136 000
Technical assistance for surveillance		4 166 000	3 201 000	2 881 000	2 916 000	805 000
Technical assistance (core functions and infrastructure)	2 246 000		965 000	869 000	1 172 000	544 000
Total	11 032 000	10 513 000	9 513 000	14 339 688	9 960 000	7 987 000

The costs of sustaining essential polio functions (excluding outbreak response) are estimated at around US\$ 7.8 million per year for the period 2022-2023. The current financial gap is estimated at US\$ 9.3 million for 2022-2023, and thus constitutes the highest financial gap among all countries of the WHO EMR polio transition countries (

¹⁶² [Financial Resource Requirements – GPEI \(polioeradication.org\)](#)

¹⁶³ [GPEI BUDGET 2018 – GPEI \(polioeradication.org\)](#)

¹⁶⁴ [GPEI Budget 2019 – GPEI \(polioeradication.org\)](#)

¹⁶⁵ [GPEI Budget 2020 – GPEI \(polioeradication.org\)](#)

¹⁶⁶ <https://polioeradication.org/financing/gpei-budget-2021/>

¹⁶⁷ [Financial Resource Requirements – GPEI \(polioeradication.org\)](#)

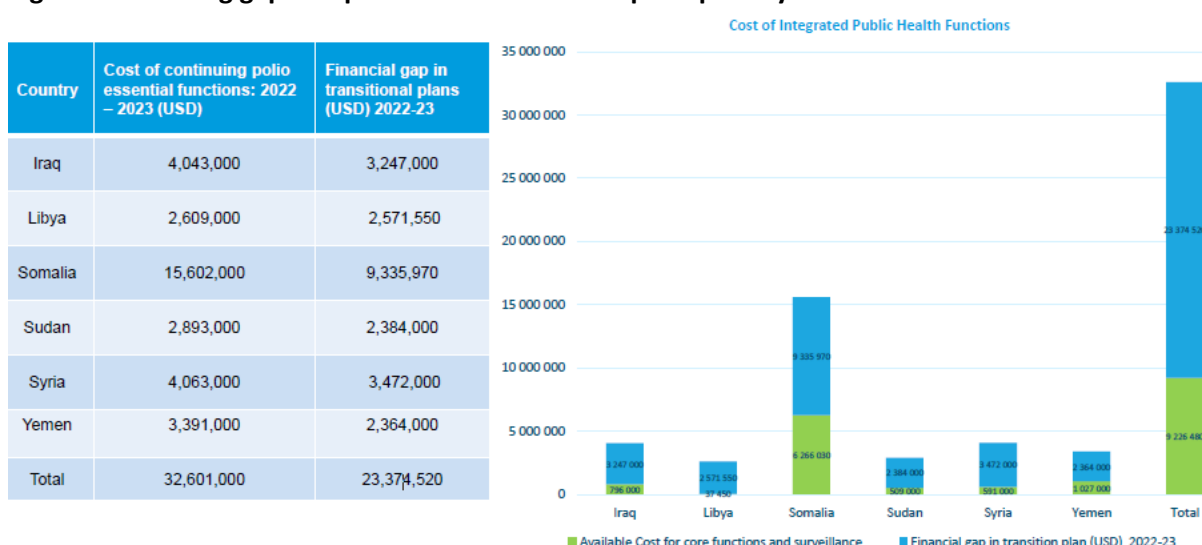
Figure 34). The annual government budget *for the entire health sector in Somalia* is around US\$ 3.2 million in 2022 and with no expected increase until 2025¹⁶⁸.

Given the large scope of polio and broader health activities currently funded by GPEI, there are substantial risks related to financial sustainability. According to an assessment of the polio transition programme conducted in 2020¹⁶⁹, Gavi will not be able to absorb the gap resulting from a ramp down and eventual closure of the GPEI, and there is limited additional financing available from other donors for immunization activities and close to zero opportunities for domestic funding. Health service delivery is heavily dependent on CSOs and United Nations (UN) agencies, especially the WHO and UNICEF. Furthermore, informants mentioned that some donors who are supporting eradication do not necessarily wish to fund polio work in an integrated manner. Informants noted that agencies that can be approached to fund the transition include agencies such as Islamic Development Bank, Bill and Melinda Gates Foundation, Centers for Disease Control, and World Bank.

¹⁶⁸ <https://mof.gov.so/publications/budget-strategy-paper-fy-2022>

¹⁶⁹ International Federation of Red Cross and Red Crescent Societies (IFRC). Polio program transition in Somalia: an assessment of risks and opportunities- Leveraging civil society resources to scale up immunization, January 2020.

Figure 34. Funding gaps for polio transition in EMR polio priority countries¹⁷⁰



The continuity of polio efforts and gains will be dependent on retention of the polio network at national and subnational levels. The evaluation found that there are human resource gaps in the government health care system in terms of capacity as well as critical shortage of manpower. One of the key elements of the polio transition strategy is to use polio staff to boost routine immunization, which offers the potential to help address the current lack of health personnel delivering services to the local population. Furthermore, the capacity building plans for the Somalia government to take over the essential polio functions seems very optimistic in the current transition plan aiming to transfer all functions by 2024.

It remains unclear from the transition plan who will be responsible for financing the plan including salaries of the integrated public health teams. “At this point in time, the government’s desire is that the contract of the selected candidates (for the public health teams), will be issued by the government while WHO remains responsible for payment of the salary”¹⁷¹, in another section of the same document it states: “At the beginning of the year 2023, MoH will take responsibility of management over all functions and associated procedures, of district and regional public health officers together with their salary payment component and hence the transition will be considered as complete”¹⁷².

Key informants generally feared that resources would not be available to sustain essential polio structures if GPEI withdraws their support to Somalia. Domestic funding for polio is almost unthinkable at this time. Other than a few government salaries and priorities, the health sector is fully funded by donors. Key informants expressed that due to fiscal constraints and other government priorities, Somalia will not be able to fund essential polio functions in the near future. Most likely Somalia will be depending on partner’s long-term engagement. Key informants further mentioned that the pace of transitioning human resources to government might not be realistic for the MoH in Somalia.

The TIMB views Somalia as the most fragile polio transition country, excluding the two polio-endemic countries (Afghanistan and Pakistan). The polio programme has the largest number of polio-eradication funded staff, who works closely with the large numbers of WHO Health Emergencies Programme staff¹⁷³. Informants articulated that it is important to ensure that none of the important polio functions are lost in this polio transition since Somalia is still considered a polio outbreak country, proposing that transition

¹⁷⁰ WHO information session for Member States January 2022

¹⁷¹ Polio Transition Plan for Somalia 2021-2024, (version updated 28.09.2021) executive summary

¹⁷² Polio Transition Plan for Somalia 2021-2024 (version updated 28.09.2021) page 15

¹⁷³ Polio Transition Independent Monitoring Board, Navigating Complexity, Adapting to new challenges on the journey to a polio-free world, Fourth report, January 2021 <https://polioeradication.org/wp-content/uploads/2021/02/4th-TIMB-Report-Navigating-Complexity-20210131.pdf>

needs to be slowed down until Somalia brings cVDPV outbreaks under control. Deferring transition particularly in security compromised areas was suggested to prevent loss of access as government may not be able to provide continuity of services in such areas.

4 Conclusions and considerations for the way forward

4.1 Conclusions

After a largely consultative process, the new polio transition plan for Somalia was developed in 2020-2021 to start implementation early 2022. It aligns well with national priorities and strategies. Even before the plan was drafted, the polio human resources supported various activities of routine immunization and surveillance and broader health priorities. The significant reliance on the polio network for the response to COVID-19 demonstrated its value to improving health security. It is expected that implementation of the transition plan will further augment the health system and has the potential to improve universal health coverage in Somalia.

Somalia's health system is highly dependent on external funding and due to the fragile health system, the complex environment, low vaccination coverage rates, recent cVDPV outbreaks and the low financial country capacity, polio transition in Somalia must be done very cautiously and over a long-term period. A fast ramping down of polio funding and fast transition process as laid out in the current plan with complete transfer to the government by 2024, could seriously jeopardize polio gains in Somalia and could potentially have wide public health implications. A longer-term plan, supported by predictable external funding is considered critical due to the lack of country capacity to take over polio assets in the immediate/medium term.

4.2 Considerations for the way forward on polio transition in Somalia

- **Revisit timelines for polio transition, noting any TIMB recommendations, and fully consider** and the time needed for proper transition that does not disrupt essential functions of the polio network. There is a need to revisit the Plan at the time of its revision in 2024, and adjust to incorporate specific national and local contexts, as necessary.
- Ensure that the plan is implemented in a **phased manner allowing sufficient time and resources for strengthening government capacities**, including capacity building in Integrated public health functions.
- **A detailed implementation work plan and accountability matrix** for the transition process with adequate resources supporting the governance structure for polio transition is needed. This to be drafted by involving all stakeholders within the government, including leadership, and disseminate the detailed implementation plan including clear roles and responsibilities of various actors. Consider setting up a **committed secretariat** to ensuring efficient implementation and oversight of the transition to function efficiently with close monitoring of indicators and progress.
- **Develop a detailed M&E framework** for the plan, with realistic indicators, milestones and disaggregated data for gender and geographical equity.
- Focus on building a **robust IDSR system** and factor in the transition plan all new programmes (immunizations, surveillance, emergency response, other possible areas) at the planning and implementation stages.
- **Improving government immunization data systems**, data recording and data management at all levels will be critical to guide actions and strategic approaches.
- **Improve equity in access to immunization**, including reaching to a larger extent current inaccessible populations, and explore further **potential gender barriers** in subnational locations.
- **Continue efforts of nOPV2 introduction** to curb cVDPV outbreaks more sustainably.

- **Explore possibilities for scaled-up CSO engagement** in advocacy and technical support to fill gaps and to promote synergies between polio activities and other health programmes.
- **Managing the planned polio human recourse scale-down** needs urgent attention. Appropriate and timely communication to all concerned on the process and expected outcome as well as fast tracking the process of rehiring staff should be sought to sustain high morale of the polio team.
- **Document in detail Somalia's response to COVID-19 and the contributions of the polio network** and use it strategically for fundraising and advocacy purposes.
- **Ensure predictable and sustainable financing** in the shorter term by **diversifying donors** (multilateral and bilateral) for sustaining polio functions in an integrated manner until government can take over financing. Build on successes of the polio network for immunization, VPD surveillance and health emergencies (including the COVID-19 response). **GPEI to communicate the plan for funding to Somalia after 2023** as soon as possible to allow effective planning.
- **Advocacy for improved ownership of high-level decision makers at the MoH** and with other ministries such as Ministry of Finance to secure domestic funding with a scale plan over the next 10 years for sustainable funding.

Annex 13: Country case study report, Bangladesh

Table of contents

1	<u>Introduction</u>	118
1.1	<u>Background</u>	118
1.2	<u>Situation and context</u>	118
1.2.1	<u>Socio- economic overview</u>	118
1.2.2	<u>Health sector overview</u>	119
1.2.3	<u>Disease burden including polio, vaccine-preventable diseases, and recent trends in children</u>	119
1.2.4	<u>Immunization service provision including polio response</u>	120
2	<u>Methods and approach</u>	121
2.1	<u>Document review</u>	121
2.2	<u>Key informant interviews and focus group discussions</u>	121
2.3	<u>Online survey</u>	122
2.4	<u>Data analysis and quality assurance</u>	122
2.5	<u>Limitations</u>	122
3	<u>Findings</u>	122
3.1	<u>EQ1: Achievements, best practices, challenges, gaps in the design of the national transition plan (relevance)</u>	122
3.2	<u>EQ2: Achievements, best practices, challenges, gaps in the implementation of the national transition plan (effectiveness and efficiency)</u>	123
3.2.1	<u>Progress against outcome indicators of the Strategic Action Plan on Polio Transition, 2018-2021</u>	125
3.2.2	<u>Gender, equity, and human rights aspects</u>	127
3.3	<u>EQ3: Potential to create and/or contribute to sustainable changes (sustainability)</u>	129
4	<u>Conclusions and considerations on the way forward</u>	131
4.1	<u>Conclusions and lessons learned</u>	131
4.2	<u>Considerations for the way forward</u>	132

Table of figures

Figure 1. Mortality trend of under-5 and under-1 age groups	120
Figure 2. Gavi support to Bangladesh, 2001- 2022	130

Table of tables

Table 1: Performance and output indicators	125
Table 2. WHO GPEI budgets 2018-2021, US\$, Bangladesh	129
Table 3: Estimated VPD surveillance cost, Bangladesh in US\$ (2023-26)	130

Acknowledgements

The evaluation team is grateful for the contribution of all distinguished stakeholders (the Line Director Maternal Newborn Child and Adolescent Health, the Programme Manager for Expanded Programme on Immunization, Directorates General of Health Services and Family Planning, the WHO team including WHO Representative and the external consultant on polio transition, the Director Institute of Epidemiology Disease Control and Research, former Director of the Institute of Epidemiology Disease Control and Research and the Co-Chair of the National Immunization Technical Advisory Group, representative from USAID, UNICEF, Institute of Health Technology, International Centre for Diarrhoeal Disease Research Bangladesh and others) who took part in the key informant interviews, focus group discussions. They contributed thoughtful views and insights enriching this report with information, facts and evidence. Their valuable insights and comments were extremely important to showcase the success evidence, portraying the lessons learned and way forward to the Polio Transition Plan and the implementation in Bangladesh.

We would like to thank the WHO team (Dr Rajendra Bohara, Dr Shah Monir Hossain and Dr Md Tanbirul Islam) for their support to every step of this evaluation.

Lead country case study consultant: Dr Nazneen Akhter

Abbreviations and acronyms

Action Plan	Strategic Action Plan on Polio Transition (2018-2023)
AFP	Acute flaccid paralysis
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
EPI	Expanded Programme on Immunization
EQ	Evaluation question
FGD	Focus group discussion
Gavi	The Global Alliance for Vaccines and Immunization
GDP	Gross domestic product
GPEI	Global Polio Eradication Initiative
HPNSP	Health Population and Nutrition Sector Programme
HSS	Health systems strengthening
IEDCR	Institute of Epidemiology Disease Control and Research
IHR	International Health Regulations (2005)
IPV	Inactivated polio vaccine
KII	Key informant interview
MCV	Measles-containing vaccine
MoHFW	Ministry of Health and Family Welfare
NGO	Non-governmental organization
SIMO	Surveillance and immunization medical officer
SMO	Surveillance medical officer
UN	United Nations
VPD	vaccine-preventable disease
WHO	World Health Organization
WUENIC	WHO/UNICEF estimates of national immunization coverage

1 Introduction

1.1 Background

The mid-term evaluation of the Strategic Action Plan on Polio Transition (2018-2023) (hereafter named the Action Plan) is one of the milestones in the Action Plan road map and it was included in the biennial evaluation workplan 2020–2021 approved by the Executive Board at its 146th session in February 2020¹⁷⁴.

The perspective of the evaluation is both outcome-based (assessing the status and implementation of the Action Plan) and forward-looking (proposing any modifications needed to adapt to the changing context). Considering the timing and changes in contextual factors, focus is placed on the formative – forward looking part – to generate learning that can inform relevant discussions and decisions.

The overarching evaluation questions (EQ) were as follows:

- EQ1: What have been the key achievements, best practices, challenges, gaps, and areas for improvement in the design of the Action Plan? (Relevance)
- EQ2: What have been the key achievements, best practices, challenges, gaps, and areas for improvement in the implementation of the Action Plan? (Effectiveness and efficiency)
- EQ3: Does the implementation of the Action Plan have the potential to create and/or contribute to sustainable changes? (Sustainability)
- EQ4: What recommendations are appropriate on the way forward to enable successful implementation of the Action Plan?

As part of the overall mid-term evaluation of the implementation of the Strategic Action Plan on Polio Transition, the evaluation team conducted three country case studies (Bangladesh, Nigeria and Somalia). The country case studies explore in more detail the experiences of implementing polio transition at country level to generate learning. Findings from the country case studies were used as triangulation points related to the findings of the overall evaluation.

This country case report presents the main findings, conclusions, and considerations for the way forward on polio transition in Bangladesh.

1.2 Situation and context

1.2.1 Socio- economic overview

The People's Republic of Bangladesh, a country in South Asia, is the 8th most populous country in the world exceeding 169 11 million inhabitants¹⁷⁵. It ranks 92nd in terms of land mass, spanning 147 570 square kilometres, making Bangladesh one of the most densely populated countries in the world. Administratively, Bangladesh is divided into eight divisions, 64 districts and 495 Upazillas (as of July 2021).

Bangladesh has an impressive track record of growth and poverty reduction. It has been among the fastest growing economies in the world over the past decade, supported by a demographic dividend, strong ready-made garment exports, and stable macroeconomic conditions. Bangladesh is now among the fastest growing economies in the world. The average growth rate gained momentum during 2011-2015 and further accelerated to 7.6% during 2016-2019¹⁷⁶. Positive trends in economic growth and

¹⁷⁴ <https://www.who.int/about/what-we-do/evaluation/resources/evaluation-workplan-2020-2021>

¹⁷⁵ Bangladesh Sample Vital Statistics 2020

¹⁷⁶ Bangladesh Country Report for Triennial Review 2021

poverty reduction continued, until COVID-19 hit the country in 2020. Between 2010 and 2019, average real gross domestic product (GDP) growth was 6.9% per year¹⁷⁷.

Allocation to the health sector stands at 5.14% of the total financial year 2020 budget and is less than 1% of GDP. In 2018, health expenditure per capita for Bangladesh was US\$ 42¹⁷⁸, which is 2.3% of the country's GDP. Government health spending is just around 36% of total health expenditure, the remainder (73.9%) is out-of-pocket expenditure¹⁷⁹. Therefore, inequality is a major concern for the health care sector which impacts on every facet of health care needs.

1.2.2 Health sector overview

The health sector of Bangladesh is a pluralistic system with four key actors that define the structure and function of the system: government, private sector, non-governmental organizations (NGOs), known as the “third sector”, and the donor agencies. Much of the successes of Bangladesh in the health sector over the past years were in infrastructure development. The Ministry of Health and Family Welfare, through the DGHS and the DGFP, manages a dual system of general health and family planning services through district hospitals, Upazila Health Complexes at sub district level, Union Health and Family Welfare Centres at union level, and community clinics at ward level. In addition, the Ministry of Local Government, Rural Development and Cooperatives manage the provision of urban primary health care services.

Major challenges in the health sector include “an overly-centralized health system, weak governance structure and regulatory framework, weak management and institutional capacity in the Ministry of Health and Family Welfare (MoHFW), fragmented public service delivery, inefficient allocation of public resources, lack of regulation of the private sector which employs 58% of all physicians, shortage of human resources for health, high turnover and absenteeism of health workers, and poor maintenance of health facilities and medical equipment.”¹⁸⁰ Addressing the issue of healthcare governance, the 4th Health Sector Programme of the Government of Bangladesh¹⁸¹ is the first foundational programme towards universal health coverage and achieving targets towards the Sustainable Development Goals¹⁸². The issue of healthcare governance has particularly emerged as a major national and global issue during the ongoing COVID-19 pandemic that started in Bangladesh in March 2020.

Other challenges exist within the sector including high inequity in healthcare financing, with significant out-of-pocket expenditures and large gaps between the top and bottom wealth quintiles as well as urban-rural access to resources. There is also a higher concentration of inequality in specific geographic areas such as Haor wetlands (a wetland ecosystem in the north-eastern part of Bangladesh), Char lands (sandbars that emerge as islands within the river channel) and urban slums.

1.2.3 Disease burden including polio, vaccine-preventable diseases, and recent trends in children

Child mortality is 29.1 per 1 000 live births¹⁸³ for children aged 1–59 months. Most common reasons for death in this age group are lower respiratory infections, diarrhoea, meningitis, injury, malaria, congenital abnormalities, and perinatal causes (i.e., premature birth and intrapartum-related events). These maladies are preventable through vaccination, early health-seeking behaviour, awareness and appropriate health care access and coverage.

¹⁷⁷ Bangladesh Country Report for Triennial Review 2021

¹⁷⁸ World Data Atlas, n.d.

¹⁷⁹ World Data Atlas, 2018

⁵ WHO Bangladesh, *Global Health Workforce Alliance*, 2021 <https://www.who.int/workforcealliance/countries/bgd/en/>

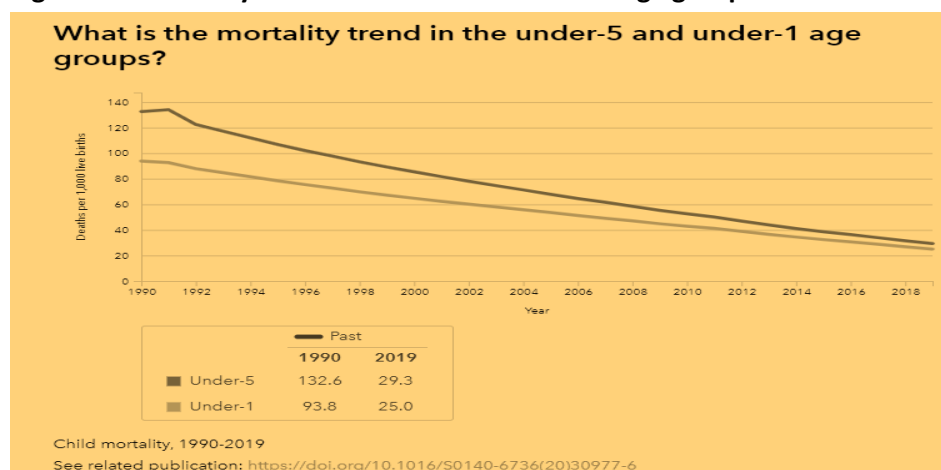
¹⁸¹ Sattar, M, *Health Sector Governance: An Overview of the Legal and Institutional Framework in Bangladesh*, 2021

¹⁸² HPNSP, 2017-2022

¹⁸³ UNICEF, 2020, <https://data.unicef.org/country/bgd/>

Under-5 mortality in the five years preceding the 2017 Bangladesh Demographic Health Survey was 45 deaths per 1 000 live births. The infant mortality rate was 38 deaths per 1 000 live births, and the child mortality rate is seven deaths per 1 000 children. Improvement over the last two decades is illustrated in **Figure 35**.

Figure 35. Mortality trend of under-5 and under-1 age groups



1.2.4 Immunization service provision including polio response

With the advent of the Expanded Programme on Immunization (EPI) in 1979 and the commitment to the Universal Child Immunization initiative in 1985, an estimated two million deaths during the period up to 2000, and a further 200 000 deaths per year since then have been prevented. The MoHFW administrative data base regarding vaccine coverage, and the annual coverage evaluation consistently show that the coverage of each of the six basic vaccines has exceeded 90% since 2005. It is also relatively homogenous in each district and equity is maintained, irrespective of gender, urban-rural variance among and across the country.

Eighty-nine percent of children aged 12–23 months are fully vaccinated. The coverage for BCG (Bacille Calmette-Guérin) vaccine, three doses of pentavalent vaccine, and three doses of polio vaccine is 95% or higher. Coverage of all basic vaccinations by 12 months has increased markedly from 78% in 2014. Coverage of measles vaccination among children under the age of 12 months was 88%. The 4th Health Population and Nutrition Sector Programme (HPNSP) sets a target of 90% coverage by 2022. The EPI programme is counted as one of the best practices, a successful programme for which the entire nation is proud.

The Government of Bangladesh joined global polio eradication efforts by conducting the first nationwide vaccination campaigns among children under-5 in 1995. Between 1995 and 2014, over 9 million doses of oral poliovirus were administered to children under-5 during these campaigns. Transmission of wild poliovirus was interrupted in 2000, but a wild poliovirus importation from India caused an outbreak resulting in 18 imported and import-related cases in 2006. The outbreak was successfully contained through an aggressive response, and no further cases have been reported to date. Bangladesh was certified polio-free along with the rest of the WHO South-East Asia Region in March 2014.

While the polio vaccination campaigns in Bangladesh were highly successful from the very beginning, Acute Flaccid Paralysis (AFP) surveillance conducted through the existing health system in early years of polio eradication was not of optimal standards as evidenced by a low level of surveillance indicators. Without a strong surveillance system it would neither be possible to detect ongoing chains of polio transmission nor to measure progress on polio eradication. In 1999, WHO then established at district

level a network of Surveillance Medical Officers (SMOs) to support the EPI to eradicate polio with a focus on improving AFP surveillance. The SMOs not only decisively contribute to the polio eradication programme, but became WHO's essential field network, working on strengthening routine immunization, vaccine-preventable disease surveillance, introduction of new vaccines, measles elimination, etc.

2 Methods and approach

The evaluation used a mixed-methods approach combining qualitative and quantitative methods for data collection and analysis. This involved a comprehensive document and data review, conducting key informant interviews (KIIs), focus group discussions (FGDs), and administration of an online survey.

At the onset, there was a planning meeting with the WHO staff. The purpose of the meeting was to allow full comprehension of the evaluation, design and map-out all possible and potential sources of data for each objective of the assignment.

2.1 Document review

A systematic approach was applied to review different documents relevant to the evaluation, these include but are not limited to (see Annex 6 for the complete bibliography):

- Polio Transition Plan Bangladesh
- Transition in Action: Bangladesh - A country success story (Montreux, Switzerland)
- Ministry of Finance, Bangladesh Country Report for Triennial Review 2021
- WHO Joint National/International EPI and vaccine-preventable disease (VPD) Surveillance Review
- WHO Member State Information Session - Update on Polio Transition, January 2022
- WHO Polio Transition Mission Bangladesh 4-9 November 2018
- WHO Progress on Polio Transition in the WHO Southeast Asia Region, Southeast Asia Region Transition Independent Monitoring Board meeting, November 2021
- World Bank website: <https://www.worldbank.org/en/country/bangladesh>
- Other relevant documents from the MoHFW in addition to relevant websites.

2.2 Key informant interviews and focus group discussions

The document review was supplemented by primary data collected through key informants and FGDs undertaken in January 2022. The key informants included stakeholders from the national and sub-national levels involved in polio transition, including key representatives from the WHO country office (four), senior government officials from the MoHFW (three), and other key stakeholders (UNICEF, research institutions, etc.; six in total).

A total of 13 key informant interviews were conducted guided by a semi-structured interview guide that listed a predetermined set of questions related to the design and implementation of the national polio transition plan. In addition, two FGDs were conducted and consisted of relevant staff (6-8 staff) from WHO country office, MoHFW and key stakeholders with a significant role in polio transition from USAID and UNICEF. Participants in FGDs were asked to reflect on the questions asked by the interviewers, provide their own comments, listen to what others in the group had to say and react to their observations. The list of informants is available in Annex 5.

2.3 Online survey

An online survey was administered to 14 key stakeholders. Of the respondents, five represented WHO Bangladesh country office, three from a national health authority, and the remaining four were from either another United Nations organisation, bi/multilateral organization, or other organizations/institutions. Questions included open and closed-ended questions.

2.4 Data analysis and quality assurance

Several types of quantitative and qualitative analysis were conducted including trend analysis of quantitative data (e.g., WHO/UNICEF Estimates of National Immunization Coverage (WUENIC), Global Polio Eradication Initiative (GPEI) data, polio transition dashboard indicators), and survey quantitative data were performed in excel. Interviews, FGDs and online questionnaire qualitative material were subjected to content analysis and assigned theme, organized, and interpreted to inform findings.

Throughout the data analysis process, the evaluation team ensured validity and reliability through triangulation in compliance with United Nations Evaluation Group standards. The team leader ensured that data analysis was coherent and consistently guided by the evaluation question and corresponding matrix. Evidence from interviews and document reviews was recorded in a standardised matrix based on the evaluation questions. The information obtained through KIIs and FGDs was triangulated with results of the online survey and the document review.

The analysis process enabled systematic interrogation of associations between variables and relationships. It also facilitated triangulation of the evidence from the different sources and provided assurance of robustness and data quality. At every stage of the evaluation, quality assurance was guaranteed.

2.5 Limitations

The COVID-19 pandemic was the main limitation to this case country study. Many key informants were overwhelmed with the COVID-19 omicron variant response in the country by the time of data collection, which delayed the process and limited the number of interviews within the set timeframe for data collection in Bangladesh. Due to COVID-19 restrictions, most interviews and FGDs were further conducted virtually instead of face-to face interaction. Interpretation of report findings should take into consideration the relatively low number of key informants. Nevertheless, the evaluation team finds that important trends, challenges, opportunities, and gaps are presented in this report, with considerations for the way forward on polio transition in Bangladesh.

3 Findings

3.1 EQ1: Achievements, best practices, challenges, gaps in the design of the national transition plan (relevance)

Sub-question 1.1: To what extent was the design of the national transition plan relevant and appropriate to achieve its intended purpose and objectives and did it respond to the needs and priorities?

With support from the GPEI, Bangladesh has developed an extensive infrastructure of a national disease surveillance system, and a national polio and measles laboratory. It has built a team of skilled staff and has been instrumental in training thousands of community health workers, social mobilisers,

and volunteers. The GPEI support to Bangladesh is already on the decline and it planned to fully stop in 2022. Cessation of GPEI support to the Bangladesh programme presents a potential risk to these national disease surveillance and laboratory systems which are vulnerable to the loss of support from the polio programme. The polio transition plan seeks to ensure that these assets are incorporated into the wider health system and used for the achievement of broader health and development goals.

The polio transition planning concept emerged and is a process of analysing the infrastructure, knowledge and functionalities of the polio programme, and managing their scale down or transfer to other health programmes. The plan was prepared through a series of consultations, meetings and workshops conducted with relevant government agencies and departments. The plan was drafted and developed by the WHO/EPI programme. The initial discussions of transition started already in 2016 and in May 2018, the draft plan was sent to the Government and presented by the EPI to the interagency coordination committee and ultimately signed by the Chair of that committee.

In the initial polio transition planning preparatory process, it was a WHO and Government-led process from a technical engagement point of view. Support was extended from WHO headquarters to regional and to country office at a high level. In addition, from global level, both Gavi and GPEI supported the process. The Bangladesh Government (DGHS, EPI) was the key stewardship including the Joint Secretary, Programme Manager EPI, Line Director and relevant health system stakeholders including Directorate General of Drug Administration, and other international partners engaged such as UNICEF, USAID, World Bank, the Foreign, Commonwealth and Development Office, Japanese International Cooperation Agency, Save the Children USA, National EPI, Polio Lab (IPH) Planning wing of Ministry, Institute of Epidemiology Disease Control and Research (IEDCR), including other national NGOs, and civil society organizations. In addition, community engagement was a big factor at implementation level, specifically the Bangladesh Paediatric Association, private practitioner associations, civil society organizations (e.g. Rotary club), and community volunteers were also engaged.

The transition plan was designed taking into consideration the country context, reality, and challenges regarding polio eradication, and avoiding affecting other programme achievements. Currently, the country is concentrating on maintaining the polio-free status, also tracking non-polio AFP cases through the surveillance system, and eventually going through a smooth transition plan in a phased manner to handover the programme to the Government.

Bangladesh has a very clearly laid out a transition plan with objectives and activities across three phases (2016-19, 2020-22, 2023-26), the 3rd phase was initially planned from 2023-2027. An addendum to the Bangladesh Transition Plan was completed in March 2019 with the support of the Polio Transition Team. The addendum to the national transition plan is aligned with the three key objectives of the Strategic Action Plan on Polio Transition and the Bangladesh Comprehensive Multi-Year Plan on immunization 2016-2022.

3.2 EQ2: Achievements, best practices, challenges, gaps in the implementation of the national transition plan (effectiveness and efficiency)

Sub-question 2.1: To what extent is the national transition plan on course to achieving its results across the three objectives of the global Strategic Action Plan on Polio Transition 2018-2023? (Effectiveness)

The Bangladesh polio transition plan is divided into three phases. Below is an overview of the progress in each of the phases followed by an overview of progress against key performance indicators.

Transition phase 1 (2016-19): The Government showcased its success story and experience in achieving all three objectives of the Strategic Action Plan on Polio Transition relevant to the 1st phase of the polio transition plan during the high-level stakeholder meeting held in Montreux, Switzerland on 13-14 November 2018. In this phase, the major milestone achievements were the integration of polio assets into EPI and government's commitment to mobilize domestic resources (see box).

The GPEI-funded SMO and district maternal and child health immunization officer were merged into the Surveillance Immunization Medical Officer (SIMO) network managed by WHO with new terms of reference. The SIMOs' functions spanned from AFP and other VPD surveillance and immunization to data analysis for evidence-based programmatic action, capacity building, and micro-planning and to handle disasters or emergencies, a team reliable to step in for coordination and operations in unprecedented situations. The SIMO network has expanded over the years and is currently in 64 districts, 12 city corporation and all municipalities. In line with the new terms of reference, the SIMO network conducts polio work (AFP surveillance, monitoring etc.), alongside with other routine EPI roles and responsibilities assigned as appropriate and has proven to be effective maintaining AFP and other VPDs surveillance and monitoring quality of polio work including other integrated roles in routine surveillance.

In addition, the laboratory system was upgraded. However, the upgrading is not complete as only the logistics and equipment installations are set up, but no functionality has taken place due to the COVID-19 pandemic. The cold chain system is reasonably developed, although the number of laboratories still needs to increase with a network across the lab system. Furthermore, as part of integrating the health information management systems, the all-disease profile and healthcare data were incorporated into District Health Information-2, which includes weekly online reporting from the SIMO network and facilities (active and passive surveillance report "zero report").

Transition phase 2 (2020-2022): Overall, activities are largely on track for phase 2, however there were some delays due to the COVID-19 pandemic (see section on COVID-19 later). This phase included integration of polio activities with other priority public health programmes such as malaria services, kala azar elimination programme, emerging and re-emerging infectious disease surveillance and other public health emergency responses such as the COVID-19 pandemic. The lab, technical expertise, and logistics were also integrated. This integration is considered a big achievement.

Polio Transition Phase 1 (2016-2019) – key achievements

- Steps toward integration of polio network into EPI (functions and assets) including merging SMO with District maternal and child health immunization officer into the SIMO network with new terms of reference
- Upgrading of laboratory system
- Integrating health management information system
- Government's commitment to mobilizing domestic resources

Polio Transition Phase 2 (2020-2022) – key achievements:

- Steps towards integrating with other priority public health programmes, the SIMO network carries out additional responsibilities related to other public health priorities
- Preparations and operational planning for the final takeover of functions and assets by government including financing – Gavi HSS3 (in process), pooled fund (4th HPNSP 2017-2022) along with regular government funding

Transition phase 3 (2022-2026): This phase is still planned to start in 2022 and involves mainstreaming assets and functions to the Government Public Health Institute of Epidemiology Disease Control and Research or EPI from 2024 with complete transition of functions by 2026. This will be done by creating a new post (District public health specialist/epidemiologist/District public health officer) that will eventually take over the Government health system functionalities.

The transition plan activities are mainly to be financed from Gavi Health Systems Strengthening3 (HSS3) and the pooled fund (HPNSP 2017-2022) which was further extended till 2023 along with regular government funding. The government has shown commitment to mobilizing domestic resources and the domestic financing needed in this phase has been incorporated in the 4th sectoral programme operational plan (US\$ 6.5 million). This allocation is currently awaiting approval by the Executive Committee of National Economic Council (see box).

Polio Transition Phase 2 (2022-2026) – key milestones:

For implementation of the polio transition plan a costed activity has been included in the revised 4th sectoral Operational Plan. For 2022-2023 a total of US\$ **6.5 million** was proposed from the 4th HPNSP 2017-2022 and government fund against the support of the SIMO network.

These includes:

1. Basic pay of SIMO network and supporting staff
2. Other activities to support the SIMO network
3. Capacity building training on VPD surveillance in 64 districts and 12 City Corporations including 38 zones.
4. Incidental and transport cost of samples
5. Incidental and transport cost of VPD outbreak investigations

3.2.1 Progress against outcome indicators of the Strategic Action Plan on Polio Transition, 2018-2021

Table 11 presents the indicators of the Strategic Action Plan on Polio Transition endorsed in 2018 and the progress against these indicators for Bangladesh. Overall, Bangladesh indicators are on track and more or less unchanged during the period, except for vaccination coverage with inactivated poliovirus vaccine which greatly increased from 75% in 2018 to 96% in 2020 and AFP surveillance indicators with a marked decline in 2021. All indicators remain high and above performance targets. Also, it is worth noting that there has been no reported circulating vaccine-derived poliovirus (cVDPV) outbreaks or wild poliovirus outbreaks in the period 2018-2021.

The AFP surveillance system in Bangladesh is generally very sensitive and with good performance. AFP output indicator targets were exceeded every year from 2018-2020 with only small declines noted in the pandemic year 2020. Yet in 2021, the AFP surveillance indicator on the % of AFP cases with two adequate stool samples took a sharp decline from 99% in 2020 to 81% in 2021, however still above the performance target of 80%. (**Table 11**).

A constant high childhood immunization coverage is clear in Bangladesh, with country coverage level estimates of inactivated poliovirus vaccine (IPV)1 at 96%, POL3 at 98%, measles-containing-vaccine first-dose (MCV1) at 97% and MCV2 at 93% in 2020, all above the performance targets of 90%. Self-assessment rates on international health regulation core indicators have remained stable, yet with some limited increase on emergency framework core capacity (**Table 11**).

Table 11: Performance and output indicators

Objective A: Sustain a polio free world after eradication
<ul style="list-style-type: none"> • High coverage of IPV • High quality AFP surveillance • Effective responses to polio events
Performance indicators

Objective A: Sustain a polio free world after eradication					
<ul style="list-style-type: none"> >90% coverage with >2 doses of IPV achieved in all countries with polio essential facilities that contain wild poliovirus Coverage with bivalent oral polio vaccine > 90% At least one case of non-polio AFP should be detected annually/100 000 population aged less than 15 years. In endemic regions this rate should be 2/100 000. % of AFP cases with adequate stool specimens > 80% 					
Output indicators	2018	2019	2020	2021	Progress
1.1 Coverage with IPV*	75%	92%	96%	N/A	On track
1.7 Coverage with bivalent oral polio vaccine*	98%	98%	98%	N/A	On track
1.8 Rate of non-polio AFP/100 000 children < 5 years**	2.5	2.6	2.1	2.2	On track
1.9 Percentage of AFP cases with two adequate stool specimens**	99%	100%	100%	81%	On track
1.10 Polio outbreaks (cVDPV)**	0	0	0	0	On track
1.11 Number of sites/number of environmental surveillance samples per site***	8/18	8/18	8/17	N/A	On track

Objective B: Strengthen immunization systems and surveillance					
<ul style="list-style-type: none"> Increased coverage with measles antigen-containing vaccine and rubella-containing vaccine Countries with regular reporting of VPD surveillance data from districts Government expenditure on routine immunization per newborn Expansion of surveillance and laboratory system at country level 					
Performance indicators					
<ul style="list-style-type: none"> Number and proportion of countries providing two doses of measles antigen-containing vaccine through routine services with coverage levels of second dose of measles antigen-containing vaccine and rubella-containing vaccine >90% nationally and >80% in all districts. 					
Output indicators	2018	2019	2020	2021	Progress
2.1 MCV1 Coverage (%)*	97%	97%	97%	N/A	On track
2.2 MCV2 Coverage (%)*	93%	93%	93%	N/A	On track
2.3 % of districts with MCV2 > 80%***	100%	98%	100%	N/A	On track
2.4 Government expenditure on routine immunization in US\$ per newborn***	10.8	13.4	14.2	N/A	On track

Objective C: Strengthen emergency preparedness, detection, and response capacity					
Performance indicators					
<ul style="list-style-type: none"> Health events detected, and risk assessed early in health emergencies Populations affected by health emergencies have access to essential life-saving preventive and curative services and interventions Average value of the core capacity indicators of the International Health Regulations (IHR). 					
Output indicators	2018	2019	2020	2021	Progress
3.1 Average % of IHR self-assessment annual reporting of <i>laboratory</i> core capacity***	73%	73%	73%	N/A	On Track
3.2 Average % of IHR self-assessment annual reporting of <i>surveillance</i> core capacity***	80%	80%	80%	N/A	On track
3.3 Average % of IHR self-assessment annual reporting of <i>emergency framework</i> core capacity***	47%	53%	53%	N/A	On track

Data sources:

* [WUENIC estimates, accessed 1 March 2022](#)

** [GPEI data, accessed 2 April 2022](#)

*** [Polio transition dashboard, accessed 26 February 2022](#)

3.2.2 Gender, equity, and human rights aspects

According to key stakeholders, immunization and vaccination programmes in Bangladesh are generally sensitive and responsive to gender, equity and human rights aspects. Gender equity was considered for vaccination campaigns such as “the children’s’ safety first”. The evaluation team did however not receive gender and geographical disaggregated data to confirm this.

Challenges have been reported in reaching the hard-to-reach areas, especially in certain remote areas, coastal region, hilly areas, and especially in the urban squatter settlements and mobile slum communities. Human resources in urban immunization programmes was cited as a challenge. The immunization services in Rajshahi city, Chittagong city corporation, health system of urban city corporation are not as structured as the rural ones and depend on NGOs. The continuity, sustainability, and consistency of the programme, and quality are challenged in many ways. Although, along with the Government-led initiative and Asian Development Bank as financial partner, the World Bank may continue to support urban primary health care centres, which will support the transition management in urban areas. A clear long-term strategic plan is needed for urban healthcare system development, along with a clear financing strategy which is still a big issue to resolve. According to the key informants, the planning process needs to endorse the urban immunization strategy and ensure necessary human and financial resources for full and immediate implementation.

Sub-question 2.2: What have been the key contextual factors and changes in the global public health realm that have affected the implementation of the Action Plan and the roadmap developed in 2018?

COVID-19

The most cited key contextual factor affecting implementation of the polio transition plan, was by far the COVID-19 pandemic. The focus on polio transition had to be shifted due to the COVID-19 pandemic in 2020-2021. The urgency of responding to the pandemic delayed some of the polio routine work. The surveillance system was affected during the period 2020-2021 as the priority shifted to COVID-19 management, starting from sample collection, sample transportation, test report back to community, case detection, isolation of case, quarantine management, vaccination, communication, campaigns and follow up. Amidst lockdown and repurposing of vaccinators to COVID-19 response, routine immunization coverage was almost 50% lower in April 2020 compared to the same period in 2019.

The SIMO network is still occupied with COVID-19 testing and laboratory investigations and COVID-19 vaccination as a high priority. Although SIMO worked very closely with EPI and other departments when there were other natural calamities, or other emergencies, those only lasted for a few days. The COVID-19 pandemic has impacted every programme’s implementation. The routine immunization surveillance was also to some extent affected. The routine supervision continued except in a few instances where routine supervision was affected at field level. Fortunately, due to the strong SIMO workforce, the team worked meticulously to sustain the previous status and achieved the AFP certification. Despite the significant challenges of COVID-19, polio vaccination coverage, especially for IPV, increased markedly between 2018 and 2020 and oral polio vaccine coverage remains high in Bangladesh. MCV coverage also remained stable in 2020 as estimated by WHO/UNICEF. The high coverage was achieved through training, close monitoring, online meetings and follow ups, and adequate logistics supports which were strictly maintained.

Polio transition efforts were neglected to some extent over the past years due to COVID-19 where the systematic approach of managing transition did not happen as planned. In fact, while the start was a positive milestone step, the subsequent steps which are more relevant to smooth transitioning, were slowed down due to the presence of COVID-19 pandemic. The whole transition plan had a step-by-step approach to manage but, during the implementation, the timing and steps had to be adjusted starting from human resources and SIMO replacement, logistics arrangements, capacity building plan, gradual integration, financing and so on. During the COVID-19 response, the EPI team shifted priority

to COVID-19 and the team was exhausted with COVID-19 responsibilities. For them to refocus to polio transition work with the same spirit may be a challenge, which needs due attention and motivation.

On the more positive side, the SIMO network proved its ability to respond to health emergencies during COVID-19 as officers were involved in data management, sample transportation from district to nearest lab leading to an expanded lab network. At the beginning of the COVID-19 emergency, WHO and its SIMOs managed to transport 85% of the country's samples. By October 2020, SIMOs handled the transportation of over 400 000 samples across the country. The WHO team provided all the needed support starting from listing cases and motivating them for vaccination and a national vaccine deployment plan for COVID-19. Around 26,000 health workers were trained, and COVID-19 prevention focused on awareness raising to ensure mothers got vaccinated, including the monitoring of vaccination, dashboard development and data analysis reports for the Government on a weekly basis¹⁸⁴.

Another contextual challenge affecting implementation of the polio transition plan was the frequent transfer of positions/staff. Changes in different position levels, more attention to public health experts' placement in senior decision-making levels to address the public health issues since quite often public health issues are less prioritized. Transition plan timely execution is the solution to sustainability, so government cadre driven approach will maintain the continuity which is not well defined now in the transition process.

Sub-question 2.3: To what extent has implementation of the Action Plan and roadmap been managed effectively by WHO in a way that leads to successful polio transition in targeted countries based on optimal use of resources (efficiency)?

According to a majority of informants, WHO has provided a strong technical support and leadership for the implementation management, monitoring quality and standards and advocating the transition plan issue to different stakeholders (from policy to practice).

WHO took the lead in the implementation of the polio transition plan and key respondents expressed that the WHO management role is reliable, transparent and communicates well with Government. WHO has generally achieved the trust from Government, with its sincerity, efforts, dignity and honesty and dedication and the SIMO network based system is highly valued by the Government. During the initial stage of polio transition, WHO was focused on mobilizing human resources, mostly for the SIMO network, and to facilitate the implementation of the polio transition plan, during the 1st phase of transition plan, WHO recruited two consultants to oversee and expedite the implementation of the plan.

Although some different points of view came from several stakeholders, the coordination among WHO, UNICEF, and government is quite satisfactory. The transition process is well consulted, shared with the Ministry and guidelines has been used after government approval. During the polio transition implementation planning process, WHO conducted a series of consultations, bringing in expertise to develop a realistic implementation plan in consultation with government and other partners. WHO has further strongly supported the development of resource mobilization plans for polio transition although the funding of the plans remains a challenge. Yet, there is generally a perceived need to bring Government, partner agencies (UNICEF, USAID and others) and other stakeholders more on board to own transition and create an enabling environment and get maximum support for implementation of the transition plan. Moreover, to avoid the duplication issue in management and monitoring the overall roles responsibilities around coordination needs to be revisited collectively by WHO, EPI office and UNICEF.

¹⁸⁴ <https://www.who.int/bangladesh/news/detail/28-10-2020-polio-eradication-team-backbone-of-covid-19-response>

The Government of Bangladesh has committed to implementing the transition plan and to integrating the polio surveillance network into the health system in line with the timelines outlined in the national plan. However, the Government's role in polio transition needs to be scaled-up with its implementation largely being led by WHO. Now the issue is how the Government will facilitate the transition, including adaptation of technical resources, financial, and the human resource strategy while there is still dependence on WHO in terms of technical support and financial support from donors. According to some key informants, key policy makers are not sufficiently engaged in this process. In this regard, some key informants expressed that WHO needs to conduct more policy advocacy and persuasion for bringing government and different stakeholders on board through different workshops and series of meetings, seminars with a clear strategic purpose to orient and educate the stakeholders on the importance of polio transition and maintaining the polio free status quo in the country.

Engagement and inclusive planning with civil society organizations involved in polio vaccination and immunization such as national and international NGOs, the Bangladesh Paediatric Association, private practitioner associations, Rotary club and community volunteers has been noted. These actors apparently played a vital role in community mobilization, vaccination campaigning including awareness, referral and follow up of vaccination. This could be further exploited for sustaining polio assets.

3.3 EQ3: Potential to create and/or contribute to sustainable changes (sustainability)

Sub-question 3.1: To what extent is the implementation of the national transition plan likely to contribute to sustainable change and to what extent have resources and staff been integrated in a sustainable manner into other health programmes?

While the plan has great potential to contribute to improved immunization and surveillance systems and increase health security, when support from GPEI and Gavi will be phased-out, a process which has already been accelerated, sustainability challenges are foreseen. Overall, sustainable financing and human resources are considered the main challenges of implementing the polio transition plan.

Financing to sustain polio essential functions has heavily depended on Gavi, GPEI, WHO, UNICEF, and USAID along with Government routine system support. The two main external funding sources (Gavi and GPEI) for polio and immunization are however winding up. GPEI funding has gradually decreased since 2018 and in 2022 the WHO budget for Bangladesh from GPEI is only US\$ 55 000 earmarked for laboratory support, compared to over US\$ 1.5 million in 2018 (**Table 12**).

Table 12. WHO GPEI budgets 2018-2021, US\$, Bangladesh

	2018 ¹⁸⁵	2020 ¹⁸⁶	2021 ¹⁸⁷	2022 ¹⁸⁸
Surveillance laboratory	155.000	155.000	100.000	55.000
Surveillance running costs	909.000	300.000	260.000	
Technical assistance	481.000	525.000	473.000	
Campaign operational costs	12.000			
Total	1.557.000	980.000	833.000	55.000

Note: GPEI budgets for 2019 were not available

¹⁸⁵ <https://polioeradication.org/financing/financial-needs/financial-resource-requirements-frr/gpei-budget-2018/>

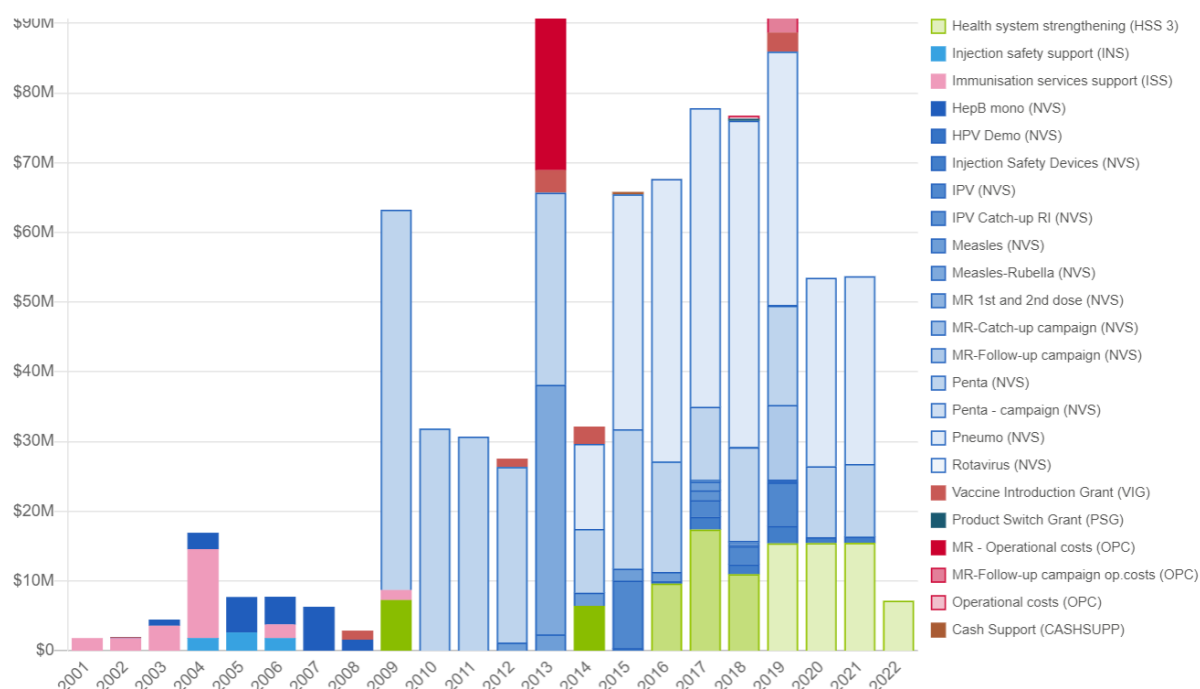
¹⁸⁶ <https://polioeradication.org/financing/financial-needs/financial-resource-requirements-frr/gpei-budget-2020/>

¹⁸⁷ <https://polioeradication.org/financing/gpei-budget-2021/>

¹⁸⁸ <https://polioeradication.org/gpei-budget-2022/>

Gavi has also accelerated the wind down of support for Bangladesh for immunization purposes over the last years, with only US\$ 7.1 million support for HSS3 provided in 2022, compared to more than US\$ 50 million support in 2021 (Figure 36).

Figure 36. Gavi support to Bangladesh, 2001- 2022¹⁸⁹



During 2020-22, funding for VPD surveillance was partially supported through the Gavi HSS3 agreement. Gavi HSS3 funding has been incorporated in pooled funding (4th HPNSP 2017-2022 programme operational plan) along with regular government funding to mainstream the polio transition implementation. However, with the expected graduation from Gavi, Bangladesh would no longer be eligible for Gavi support by 2023¹⁹⁰. For 2022-2023 a total of US\$ 6.5 million was proposed from the pooled fund and government fund against the support of the SIMO network.

The annual budget for VPD surveillance and related activities and laboratory support and the additional project cost for planning, monitoring, and overseeing the polio transition is estimated to be almost US\$ 4 million in 2023, decreasing to US\$ 2.5 million by 2026 (Table 13). Future funding for polio transition and for sustaining surveillance at the highest level following full transition will need to be identified and earmarked from HNPSP.

Table 13: Estimated VPD surveillance cost, Bangladesh in US\$ (2023-26)

Activities	2023	2024	2025	2026
SIMO Network HR	2 170 940	2 236 069	1 535 434	790 750
Operations	951 552	951 552	951 552	951 552
Trainings	210 000	210 000	210 000	210 000
Lab surveillance cost	467 639	491 021	515 572	541 350
Total	3 800 131	3 888 641	3 212 560	2 493 652

¹⁸⁹ <https://www.gavi.org/programmes-impact/country-hub/south-east-asia/bangladesh>

¹⁹⁰ https://www.who.int/immunization/programmes_systems/procurement/mi4a/Factsheet_vacc_pricing_Gavi_transitioning_Dec2017.pdf

In the WHO South-East Asia Regional Office, the SIMO network is considered as unparalleled, and was proven essential during the COVID-19 pandemic. Continuity of this structure needs to be considered, as it will be a critical structure for any future public health emerging infectious and disease outbreaks as well as for broader immunization results. The SIMO network is one of the strongest assets supported by polio funds so far but continued funding support and incorporation into the health sector programme remains a challenge. The Government recognizes that the SIMO network is an important network in respect to sustaining a polio free world and the need to sustain this structure. With the recent COVID-19 response by the SIMO network, WHO should leverage on this success story and advocate towards increased government funding for the SIMO network to sustain.

The transition plan builds on the SIMO network, but the transition and positional placement of the SIMO network remains a concern. The SIMO network staff are not yet in formal placement in the Government organogram. The strategy to integrate SIMO in a sustainable manner into other health programmes is being developed during the first quarter of 2022. The clarified human resource strategy will include SIMO replacement, human resource recruiting capacity building, retraining, monitoring, maintaining, and follow up. This programme demands a substantial amount of running cost (approximate US\$ 4.5 to 5 million a year running cost).

The Government incorporated the polio transition plan with its required financial allocation in 4th sectoral operational plan (which is conditioned to approval by the Executive Committee of the National Economic Council. If the sectoral operational plan is approved, funds for sustaining SIMOs will come from the Government which will be a huge achievement for polio transition. In this revision process, WHO worked very hard. The lead technical consultant appointed from WHO, made a strong effort with the current policy-makers/decision-makers engaged in 4th sectoral operational plan review to include human resources, making the financial allocation priority in the operational plan. If the operational plan is approved and transition goes ahead accordingly, there will be scope to carry this through to the 5th sectoral plan in the future. Questions remain, however, as to who is going to manage and administer this SIMO network system support when it will be taken up by Government. Is it going to be directly implemented by the Government or will the Government need to collaborate with WHO to take over this role for the administration and management of the SIMO network. These are questions that still need an answer and it will be crucial to think and plan for the future of the SIMO network and how it can be placed in the Government health system with clear roles and responsibilities in the organogram.

4 Conclusions and considerations on the way forward

4.1 Conclusions and lessons learned

The comprehensive polio transition plan was designed with strategic alignment including logistics, equipment, system integration, human resources replacement, and tapering of current financing to a mainstream/government-led financing solution.

Implementation of the polio transition plan has seen great achievements and met important milestones with a continued focus on routine immunization and high-quality surveillance which clearly reflects the importance of having a well laid-out transition plan. AFP surveillance indicators (% AFP cases with adequate stool samples) though took a sharp decline in 2021 and potential reasons for this decline must be carefully analysed.

The COVID-19 pandemic, although interrupting the pace of the polio transition implementation in various ways, also broadened the span of responsibilities of the SIMO network adding a public health emergency management dimension.

Yet, challenges remain to fully implement the plan. More ownership of polio transition beyond WHO is needed, including local government health staff in surveillance activities. Most importantly, the Government needs to fulfil their strong commitment to allocate sufficient resources to ensure human resources and financial sustainability, including for the SIMO network. Furthermore, stronger linkages to the EPI and more clarity of the roles and responsibilities of all partners in relation to sustaining polio assets is critical.

Continued effective collaboration with partners will be key. The vision towards maintaining continued and sustaining a polio free status of the country is an issue of commitment and national priority.

4.2 Considerations for the way forward

- The Government has the ability and intention to fund polio transition. However, planning and responding to COVID-19 shifted attention and priorities. Government stakeholders at policy level need to give enough time and attention to polio transition implementation and revisiting the process.
- The existing polio transition plan needs to be revisited in terms of planning, phasing, timing, and adequate resource mobilization to continue and sustain polio assets; developing a clear role division and a robust monitoring system to monitor quality, progress, and speed of transition will be equally important.
- It is crucial to sustain the SIMO network and place it in the Government health system and assign clear roles and responsibilities. During the interim period, while technical capacity is further strengthened and capacity transfer from WHO to the Government system takes place, WHO can continue to manage current tasks for some years to build full capacity.
- The EPI programme should be redefined to include the polio transition programme, as incorporated in the revised operational plan/4th sectoral programme, and maintain continuity through pursuing the 5th sectoral programme as part of the Government system. Accordingly, continued efforts should be made to mobilize resources (especially human and financial) also exploring other funding sources to sustain the SIMO network in the Government system. To some extent, the EPI as a programme needs attention to sustain the optimum quality. Identifying and engaging partners to expand roles and potentials in implementation management is also a very important consideration for the Government EPI programme.
- The polio transition plan should be well balanced and synchronized with gradual capacity-building. Considering human resource capacity, the transition is still a concern. Staff are already overloaded, so taking on this additional role needs to occur at district/divisional level (epidemiologist) to distribute the responsibility with an aim to ensure quality and sustainability.
- Higher policy level advocacy needs to take place with the MoHFW and the key stakeholders including the EPI programme. Advocacy targeting all partners is required for transition to be led by the Government, to ensure resource mobilization and capacity building, in order to mainstream essential polio functions within government structures.
- To address hard-to-reach areas with vaccination service, actionable recommendations that can be implemented immediately include (i) establishing coordination mechanisms at city, zone, and ward levels, including a coordination committee led by the mayor with participation of the Deputy Director of Health Services, Deputy Director of Family Planning, civil surgeon, community health organization, and NGO representatives; and (ii) establishing an inter-ministerial committee to improve coordinated service delivery, filling vacant staff positions, and

ensuring that private sector protocols/procedures for service delivery, surveillance, and reporting are in place, including standardized contractual mechanisms and performance agreements with NGOs.

- To make this transition plan a real success, an extension of 1-2 years should be considered to catch up with the effects of COVID-19.