

Poliomyelitis

Poliomyelitis eradication

Report by the Director-General

1. This report provides an update on work towards fully implementing and financing all aspects of the Polio Eradication Strategy 2022–2026.

GOAL 1: PERMANENTLY INTERRUPT ALL POLIOVIRUS TRANSMISSION IN ENDEMIC COUNTRIES

2. In 2023, wild poliovirus type 1 continued to be detected in parts of Afghanistan and Pakistan, the last two remaining countries where the virus is endemic. Cases of poliomyelitis are now mainly restricted to endemic areas in both countries, namely Nangahar province in the eastern region of Afghanistan; and, seven endemic districts in the southern area of Khyber Pakhtunkhwa province of Pakistan. The periodic detection of wild poliovirus type 1 from environmental samples outside of these remaining endemic areas, particularly from Peshawar in the southern area of Khyber Pakhtunkhwa, demonstrates the continued risk of ongoing transmission. The global effort to eradicate poliomyelitis remains a public health emergency of international concern, as per the conclusions of the Emergency Committee under the International Health Regulations (2005) on the international spread of poliovirus.¹

3. In Afghanistan, six cases of poliomyelitis due to wild poliovirus type 1, and 46 environmental samples for wild poliovirus type 1 have been reported in 2023. All cases are from Nangarhar province, in the country's eastern region; of the positive environmental samples, the majority are from the eastern region, namely: 35 from Nangarhar and three from Kunar. Further samples have been reported from other regions as follows: one from Balkh (north region); two from Kabul (central region); and one from Zabul and four from Kandahar (both in the southern region). Although all the samples concerned can be genetically traced to ongoing endemic transmission in Nangarhar, they represent a significant risk of an outbreak in the southern region due to low population immunity. The genetic diversity of wild poliovirus type 1 transmission in Afghanistan remains at a historic low, with one chain active in 2023.

4. Significant challenges remain in finding and vaccinating remaining zero-dose children in Nangarhar. In the first half of 2023, the quality of supplementary immunization activities continued to improve, noting a reduction in the proportion of missed children. However, improved coverage must be

¹ Statement of the thirty-sixth meeting of the Emergency Committee under the International Health Regulations (2005), August 2023, available at: <https://www.who.int/news/item/25-08-2023-statement-of-the-thirty-sixth-meeting-of-the-polio-ehr-emergency-committee> (accessed 21 October 2023).

further built on and sustained in order to successfully interrupt transmission, while risk mitigation strategies in highest-risk polio-free areas, notably Kandahar, must be implemented.

5. In Pakistan, five cases of poliomyelitis due to wild poliovirus type 1, and 62 environmental samples for wild poliovirus type 1 have been reported in 2023. Three of the cases are from Bannu, in the southern area of Khyber Pakhtunkhwa province and two are from greater Karachi in Sindh province (belonging to the same genetic cluster, circulating in eastern Afghanistan). In regards to environmental sample, the following positive samples were reported: 28 from Khyber Pakhtunkhwa province (two from Bannu, one from D.I.Khan, four from Hangu, one from Kohat, one from South Waziristan, one from Nowshera and 18 from Peshawar district); 16 from Sindh province (all from greater Karachi); nine from Punjab province (six from Lahore and three from Rawalpindi district) and nine from Balochistan province (two each from Kila-Abdullah and Chaman, two from Pishin, and one each from Quetta, Dera Bugti, and Lasbells district). The genetic diversity of wild poliovirus type 1 transmission in Pakistan remains at a historic low, with two chains active in 2023.

6. Convening in June 2023, the Technical Advisory Group for Pakistan and Afghanistan reviewed all elements of both countries' eradication efforts and put forward key recommendations, now being implemented in both countries, to urgently address remaining subnational immunity and surveillance gaps.

GOAL 2: STOP TRANSMISSION OF CIRCULATING VACCINE-DERIVED POLIOVIRUS AND PREVENT OUTBREAKS IN NON-ENDEMIC COUNTRIES

7. In 2022, one case of poliomyelitis due to wild poliovirus type 1 was reported from Lilongwe in Malawi (with onset of paralysis in the year 2021) and eight from Tete province in Mozambique. Cases were clustered along the Zambezi River and along transport routes linking the major population centres. Genetic sequencing data suggest a single importation event from Pakistan during late 2019 and early 2020.

8. Thanks to a strong sub-regional, multi-country response across five countries of the region, no wild poliovirus type 1 has been detected since 10 August 2022. At the same time, outbreak response activities are continuing in respect of both circulating vaccine-derived poliovirus type 1 (three cases reported in 2023 in Mozambique) and circulating vaccine-derived poliovirus type 2 (Mozambique reported four cases of circulating vaccine-derived poliovirus type 2 in 2022, while Malawi reported one positive environmental sample in 2023). In order to urgently stop outbreaks of all three strains. Currently (from 13–25 November 2023), an independent outbreak response assessment is being carried out in Malawi and Mozambique to review the current epidemiology, appraise the quality of surveillance and immunization activities as well as identify remaining risks and room for improvement to inform further course of outbreak response in 2023 and 2024.

9. Emergency outbreak response efforts are continuing in all the most consequential geographies^{1,2} affected by circulating vaccine-derived polioviruses. The Democratic Republic of the Congo continues to be affected by both type 1 and type 2 circulating vaccine-derived poliovirus, particularly in the east of the country. However, thus far in 2023, both caseloads have been significantly declining compared with 2022. The same is true for north-western Nigeria (Sokoto and Zamfara), where the outbreak has continued to decline since mid-2022. In Somalia, transmission continues in the south and central areas

¹ The term “consequential geographies” refers to outbreak areas with the most intense force of poliovirus infection.

² Eastern Afghanistan; southern area of Khyber Pakhtunkhwa, Pakistan; northern Yemen; south and central areas of Somalia; north-west Nigeria; eastern Democratic Republic of the Congo; and Tete province, Mozambique.

of the country, and a special emergency operations plan has been developed to increase outreach amid a broader humanitarian emergency. In northern Yemen, authorization to conduct full immunization response has yet to be received.

10. High-profile outbreaks of vaccine-derived poliovirus from 2022, including in Canada, Indonesia, Israel, the United Kingdom of Great Britain and Northern Ireland and the United States of America continue to be appropriately managed by local public health authorities. The ongoing conflict in Sudan continues to hamper the response to the new outbreak of circulating vaccine-derived poliovirus type 2, detected in 2023 (with one case from 2022). Surveillance for acute flaccid paralysis remains active nationwide and mitigation measures involving sample collection and storage continue to be implemented.

11. To stop transmission of circulating vaccine-derived poliovirus type 2 more effectively and sustainably, novel oral polio vaccine type 2 continues to be administered through the WHO emergency use listing procedure, with over 700 million doses administered across 32 countries as at August 2023. Full licensing and prequalification of novel oral polio vaccine type 2 remain on track for the end of 2023. Supply constraints for novel oral polio vaccine type 2 that surfaced in late 2022 have improved, and supply is now sufficient for programme needs. While some new emergences linked to novel oral polio vaccine type 2 have been seen, the vaccine continues to demonstrate significantly enhanced genetic stability compared with monovalent oral polio vaccine type 2 (and hence a much lower risk of reverting to forms that can cause paralysis in low immunity settings).

12. In September 2023, the Independent Monitoring Board of the Global Polio Eradication Initiative published its progress report. The Board concluded that despite ongoing progress towards interruption, in particular with regard to endemic wild poliovirus type 1 transmission, remaining challenges make stopping transmission of this strain unlikely in 2023; and, while the group noted improvements in combating circulating vaccine-derived poliovirus type 2, ending all outbreaks of such strains will take more time. The Polio Oversight Board, consisting of the heads of the Global Polio Eradication Initiative partner agencies, convened in person in October 2023, to review the assessment and put in place key corrective measures for overcoming remaining technical, programmatic and context challenges, in order to urgently interrupt wild poliovirus type 1 during 2024 and ensure the certification of its eradication as planned by the end of 2026; while further intensifying the response to circulating vaccine-derived poliovirus type 2 to achieve interruption of these strains in 2025.

Enabling environment

13. The Global Polio Eradication Initiative Gender Equality Strategy 2019–2023 provides guidelines for gender-responsive programming, institutional structures and environment. Gender analyses are being undertaken to comprehend the gender barriers and prepare gender-responsive plans and strategies for effective coverage. Women workers are hired at all levels, including front-line and decision-making levels. Gender-specific capacity building is being executed for polio eradication staff to introduce a women-friendly work environment. Sex-disaggregated data is being collected, especially for missed children and acute flaccid paralysis cases to improve performance. In order to ensure coordination, knowledge sharing, promotion of best practices and lessons learned, technical work, advocacy and communications, a gender mainstreaming group comprised of polio eradication partners has been established. The programme's commitment to gender-responsive programming closely aligns with the Immunization Agenda 2030 and the gender policy of Gavi, the Vaccine Alliance.

14. The Global Polio Eradication Initiative continues to support integration activities across the programme. At policy level, guidance on integration priorities in outbreak settings has been developed

and rolled out to operational teams. The focus for integration efforts remains at the country level, for example: in Afghanistan, through engagement with humanitarian partners to improve reach in high-risk areas, as well as support to the basic package of health services at facility level; in Pakistan on integrated service delivery; in Somalia on far reaching integrated delivery through health camps; and in Malawi on the national multi-antigen immunization campaign. A programme of work has been initiated that will help to better document and report the integration actions being taken by supported teams in the field.

15. The Global Polio Eradication Initiative aligns its priorities with the goals of the Immunization Agenda 2030 and the strategy of Gavi, the Vaccine Alliance, in particular on identifying and reaching zero-dose communities, as part of the ‘Big Catch Up’ effort to support countries to recover from a decline in routine immunization during the pandemic of coronavirus disease (COVID-19). The Africa Regional Certification Commission called for urgent action to bolster vaccination, while the African Union Heads of State and Government issued a concrete declaration to build momentum for routine immunization recovery in Africa. WHO/UNICEF estimates indicate that although immunization coverage began to recover during 2022 from the impact of the COVID-19 pandemic, progress is uneven, and is slower in some regions and low-income countries. In 2022, there were 14.3 million zero-dose children worldwide, representing a decrease from 18.1 million in 2021, but falling short of the pre-pandemic level of 12.9 million zero-dose children. This underlines the need for continued efforts by the Global Polio Eradication Initiative and immunization partners to support countries to reach every child with essential immunization services.

Preparing for the post-certification world

16. To direct future polio transition efforts, a post-2023 strategic framework for polio transition is being developed. The new framework is based on a theory of change and will build upon lessons learned from the strategic action plan on polio transition (2018–2023). The operationalization of the framework will begin in 2024; it will be closely aligned with evolving epidemiology and polio eradication timelines, and will address the recommendations of the Polio Transition Independent Monitoring Board outlined in its most recent report published in July 2023. This work is essential to ensure that the eradication gains once made are sustained.

17. In 2024, work will continue on updating the polio post-certification strategy, with the aim of (a) aligning it with updated eradication timelines and reflecting new developments in post-certification policy, strategy and research, and (b) aligning it with the post-2023 strategic framework for polio transition. Working groups have been established for each key thematic area. During this process, efforts will be made to identify and apply lessons learnt from the 2016 switch from trivalent oral polio vaccine to bivalent oral polio vaccine in routine immunization programmes, in support of preparations for the eventual cessation of all oral polio vaccine use from routine immunization programmes.

Containing poliovirus

18. Through resolution WHA71.16 (2018) on poliomyelitis – containment of polioviruses, Member States committed to accelerating progress towards poliovirus containment certification, signalling a universal intent to achieve the goals set out therein. While progress has been made, it has not been universal nor fast enough. As at end of August 2023, 22 Member States have reported retaining poliovirus type 2 materials in 59 facilities designated by their national governments as serving critical functions requiring retention. Of the 20 Member States with a designated national authority, 19 have initiated the certification process in respect of 48 facilities. Of the three Member States that have not

initiated certification of their facilities, two¹ have yet to formally appoint a national authority for containment and one² has yet to submit its facility application – activities that were due for completion by March 2019 and end-2019, respectively. Three Member States³ have yet to initiate enrolment of their 10 facilities in the containment certification scheme, while five Member States⁴ have yet to complete their application process for certificates of participation for their 10 facilities, as required by the end of 2019. Furthermore, five Member States⁵ have yet to share their plans in respect of facility applications for interim certificates of containment, a measure recommended by the global commission for the Certification of Poliomyelitis Eradication for completion by the end of 2022 at the latest. High-level advocacy, including targeted outreach by the Director-General, has been initiated to ensure rapid and full implementation of the activities outlined in resolution WHA71.16. It is encouraging that some advances have been seen in recent months, including the awarding of interim certificates of containment by the global commission to seven facilities in three Member States.⁶

19. In June 2022, the Global Polio Eradication Initiative published a dedicated global poliovirus containment strategy, as well as an associated action plan, a workplan, and a monitoring and evaluation framework for 2022–2024. The third edition of the WHO Global Action Plan to minimize poliovirus facility-associated risk after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use was revised in 2022, with the fourth edition coming into force in July 2022, following its endorsement by the Containment Advisory Group. Reviews of the corresponding containment certification scheme and the guidance relating to minimizing risks for facilities collecting, handling or storing materials potentially infectious for polioviruses are also under way. Global containment action plans have a target of all poliovirus-retaining facilities obtaining containment certification by the time that poliomyelitis is declared eradicated.

Cessation of oral polio vaccine and certification

20. Following the successful eradication of wild polioviruses globally, the use of all remaining oral polio vaccine in routine immunization programmes will end in order to eliminate the risk of vaccine-derived polioviruses. The Global Commission for the Certification of the Eradication of Poliomyelitis continues to review the global criteria for verifying the elimination of circulating vaccine-derived polioviruses, focusing on a flexible approach to certification, whereby traditional surveillance indicators are considered in an area-specific context.

Financing and global commitment to poliomyelitis eradication

21. The global political will to eradicate poliomyelitis remains strong, as demonstrated by the high-level commitments to poliomyelitis eradication made during sessions of the Health Assembly, the Rotary International Convention, the G7 leaders' and health ministers' meeting, the G20 health ministers' meeting and the Eastern Mediterranean Regional Subcommittee on Polio Eradication and Outbreaks. Significant pledges and commitments made by global partners and donors

¹ China and Romania.

² Serbia.

³ China, Romania and Serbia.

⁴ Australia, France, Iran (Islamic Republic of), Pakistan and the United Kingdom of Great Britain and Northern Ireland.

⁵ Australia, China, Iran (Islamic Republic of), Romania and Serbia.

⁶ Canada (two), France (four) and the United States of America (one).

have resulted in US\$ 3.3 billion in funding, including prior commitments from previous years, towards the Polio Eradication Strategy 2022–2026,¹ an important step towards securing the full US\$ 4.8 billion needed to ensure the successful implementation of the Strategy. In October 2023, the European Investment Bank became the latest partner to join the global eradication effort through the Strategy – a key innovative feature of this arrangement will be performance-based payment triggers to be assessed on an annual basis.

ACTION BY THE EXECUTIVE BOARD

22. The Executive Board is invited to note the report and provide guidance on the questions set forth below.

- What measures should be adopted to ensure that all remaining zero-dose children in the most consequential geographies are reached with oral polio vaccine, amid broader humanitarian emergencies affecting these areas?
- What steps should be taken to ensure that the financial resources required to fully implement the Polio Eradication Strategy 2022–2026 are mobilized, including to rapidly operationalize pledges, and mobilize additional commitments through international and national resources?

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¹ Global leaders commit US\$ 2.6 billion at World Health Summit to end polio. Available at: <https://polioeradication.org/news-post/global-leaders-commit-usd-2-6-billion-at-world-health-summit-to-end-polio/> (accessed 6 March 2023).