
Eradication of poliomyelitis

Report by the Director-General

1. This report provides an update on the status of the four objectives of the Polio Eradication and Endgame Strategic Plan 2013–2018 (Endgame Plan). It summarizes programmatic, epidemiological and financial challenges to achieving a lasting polio-free world. The Executive Board at its 142nd session noted an earlier version of this report.¹ A report on the strategic action plan on polio transition, highlighting the post-certification strategy which defines the essential functions that Member States will need to maintain to sustain a polio-free world² is submitted separately to the current Health Assembly, in line with decisions WHA70(9) (2017) and EB142(2) (2018).

2. The strategies outlined in the Endgame Plan³ have brought the world to the brink of being polio-free and have set the groundwork for sustaining a polio-free world in perpetuity. The strategies remain appropriate for achieving success and will be pursued through to global certification. After eradication of wild poliovirus has been certified, the post-certification strategy² will guide the world on the activities that need to be implemented and functions that must be sustained in order to maintain a world free of polio. The Secretariat will continue to report annually to the Health Assembly on progress towards all objectives of the Endgame Plan, until eradication of wild poliovirus globally has been certified.

POLIOVIRUS DETECTION AND INTERRUPTION OF TRANSMISSION

Wild poliovirus transmission

3. Efforts are continuing to eradicate all remaining strains of wild poliovirus. The last reported case of poliomyelitis due to wild poliovirus type 2 was reported in 1999: wild poliovirus type 2 was officially certified as eradicated in September 2015. Wild poliovirus type 3 has not been detected globally since November 2012, when the last case of poliomyelitis due to this strain was reported in Yobe State, Nigeria. Since that time, all cases of paralytic poliomyelitis due to wild poliovirus have been caused by wild poliovirus type 1, which continues to circulate in three countries in which the disease is endemic: Afghanistan, Nigeria and Pakistan.

4. In Nigeria, no new case of poliomyelitis due to wild poliovirus type 1 was confirmed in 2017, following the detection of cases in August 2016 from Borno State (the isolated viruses were most

¹ Document EB142/37, see summary records of the Executive Board at its 142nd session, thirteenth meeting, section 3.

² Polio Post-Certification Strategy (<http://polioeradication.org/polio-today/preparing-for-a-polio-free-world/transition-planning/polio-post-certification-strategy/> accessed 15 March 2018).

³ See documents A66/18 and WHA66/2013/REC/3, summary record of the ninth meeting of Committee A, section 1.

closely related to a strain of wild poliovirus type 1 previously detected in Borno State in 2011). However, due to continuing surveillance gaps in high-risk and inaccessible areas, undetected and continued circulation of this strain cannot be ruled out. The Government of Nigeria continues to implement an aggressive outbreak response, conducted in close coordination with neighbouring countries across the Lake Chad subregion, within the context of the broader humanitarian emergency affecting the subregion. Lack of access and inability to conduct high-quality vaccination and surveillance in many areas of Borno State remain the primary challenges. A key objective continues to be to prevent the outbreak from spreading to other areas of the subregion, and additional measures are being implemented to increase surveillance sensitivity and boost immunity levels, including the following: scaling up of environmental surveillance; testing of healthy individuals (including adults) as they exit inaccessible areas; setting up permanent vaccination posts at key crossing points to inaccessible areas in order to vaccinate children and people in older age groups; and rapidly conducting mop-up immunization campaigns as and when windows of opportunities arise or areas become accessible.

5. Afghanistan and Pakistan continue to be treated as a single epidemiological block. In 2017, eight cases of paralytic poliomyelitis due to wild poliovirus type 1 were reported in Pakistan, compared with 20 in 2016; in Afghanistan, 14 cases were reported, compared with 13 in 2016. As at 31 January 2018, three cases of paralytic poliomyelitis due to wild poliovirus type 1 had been reported in 2018 in Afghanistan. The two countries continue to demonstrate strong progress, with independent technical advisory groups underscoring the feasibility of rapidly interrupting transmission of the remaining poliovirus strains. Realization of that goal will, however, depend on reaching all children who have not been vaccinated. Both countries are coordinating their activities closely, with efforts focusing on clearly identifying missed children and the reasons why they have been missed, and putting in place operational plans to overcome these challenges. In particular, emphasis continues to be placed on reaching high-risk mobile population groups travelling internally within both countries and across the border. Virus transmission is now primarily restricted to two cross-border corridors: the first links eastern Afghanistan with Khyber Pakhtunkhwa and Federally Administered Tribal Areas in Pakistan, and the second links southern Afghanistan (Kandahar and Hilmand) with the Quetta block, Balochistan province, in Pakistan. Coordination of the polio eradication programme continued to improve in 2017 at the national, provincial and regional levels, as well as among the bordering districts in the common corridors of transmission, focusing on vaccination of people in high-risk mobile populations and those in populations living along the border. Challenges affecting the quality of operations in the Quetta block must also be urgently tackled. At the same time, polio-free areas of both countries must maintain high levels of both immunity and surveillance. Environmental surveillance in both countries confirms the risk of ongoing transmission of virus to polio-free areas, imported from remaining reservoir areas. Of particular concern is Karachi (Pakistan), given the ongoing detection of positive environmental samples and since the confirmation of a case of paralytic poliomyelitis due to wild poliovirus in August 2017, the first in greater Karachi since January 2016. Both Afghanistan and Pakistan have adjusted and fine-tuned their national emergency action plans for polio eradication, building on the lessons learned and concentrating on improving programme operations during the low-transmission season (October to May). The updated National Emergency Action Plans place particular emphasis on the Quetta block, Karachi and Islamabad-Rawalpindi in Pakistan, and Southern and Eastern Regions of Afghanistan. Consistently reaching and vaccinating high-risk mobile population groups is essential if Afghanistan and Pakistan are to interrupt transmission over the coming months. Another factor critical to achieving success is to sustain continued effective leadership at all levels in both countries, including throughout the period of the forthcoming national elections in Pakistan.

Circulating vaccine-derived poliovirus transmission

6. In 2017, two countries were newly affected by outbreaks of circulating vaccine-derived poliovirus (type 2): the Syrian Arab Republic and the Democratic Republic of the Congo, with 74 cases and 17 cases reported, respectively. The monitoring of and response to circulating vaccine-derived poliovirus type 2 transmission continues to be a global strategic priority, following the globally coordinated withdrawal of the type 2 component of oral polio vaccine in April 2016 with a switch from trivalent oral polio vaccine (containing all three serotypes of poliovirus) to bivalent oral polio vaccine (containing types 1 and 3). Internationally agreed outbreak response protocols are available which guide countries and the programme to respond rapidly to vaccine-derived poliovirus type 2 strains in the post-switch era, for instance by maintaining a global stockpile of monovalent oral polio vaccine type 2. An outbreak response is now under way in both countries to rapidly stop these outbreaks. In the Syrian Arab Republic, the same response strategies are being used that successfully stopped an outbreak of poliomyelitis due to wild poliovirus type 1 in 2013–2014, in the same area of the country. An initial vaccination campaign in August 2017 resulted in more than 350 000 children being vaccinated in Deir Ez-Zor and Raqqa governorates. Phase two of the response began in January 2018. In the Democratic Republic of the Congo, outbreak response continues to be implemented in the affected and high-risk provinces, with monovalent oral polio vaccine type 2 and in line with internationally-agreed outbreak response protocols. The focus is on reaching previously-missed children and in particular children living in known infected areas. These outbreaks underscore the continued risk posed by immunity gaps anywhere in the world. In areas with adequate immunity levels, surveillance for vaccine-derived poliovirus type 2 from any source is revealing a steady and rapid decrease in the persistence of such strains.

Public health emergency of international concern

7. The declaration in 2014 of the international spread of wild poliovirus as a public health emergency of international concern and the temporary recommendations promulgated under the International Health Regulations (2005) remain in effect. All countries currently affected by circulation of either wild or vaccine-derived polioviruses have declared such events to be national public health emergencies and are implementing national emergency action plans.

PHASED REMOVAL OF ORAL POLIO VACCINES

8. The switch from trivalent oral polio vaccine to bivalent oral polio vaccine, which took place between 17 April and 1 May 2016, involved 155 countries and territories and is expected to lead to significant public health benefits. Almost 40% of all vaccine-associated paralytic poliomyelitis cases (about 200 cases per year) and 90% of circulating vaccine-derived poliovirus outbreaks over the past 10 years were associated with the type 2 component of trivalent oral polio vaccine. Such cases should no longer occur. Efforts are continuing to: conduct surveillance for any emergence of circulating vaccine-derived poliovirus type 2 (as evidenced by the recent outbreaks in the Syrian Arab Republic and the Democratic Republic of the Congo); maintain strong outbreak response capacity with monovalent oral polio vaccine type 2; and ensure that no use of residual trivalent oral polio vaccine continues anywhere.

9. To prepare for the switch to bivalent oral polio vaccine, all countries had committed themselves to introduce at least one dose of inactivated poliovirus vaccine into their routine immunization programmes. Global supply constraints that emerged owing to technical difficulties encountered by manufacturers in scaling up production resulted in a total of 35 countries experiencing delays in supply. On the basis of manufacturers' projections, all countries that have experienced delays should

receive the vaccine in the first half of 2018. During this period of shortage, the available supply was prioritized for routine immunization in countries at highest risk of outbreaks of vaccine-derived poliovirus type 2. The Global Polio Eradication Initiative continues to explore with Member States and WHO's regional offices the feasibility of adopting dose-sparing strategies, such as using intradermal administration of fractional-dose inactivated poliovirus vaccine, as recommended by the Strategic Advisory Group of Experts on immunization. Several Member States have already adopted this approach, notably Bangladesh, India and Sri Lanka, and several countries across the Region of the Americas are in the process of doing so. Such an approach is helping to ensure that sufficient quantities of inactivated poliovirus vaccine in these countries are available for continued vaccination of their respective birth cohorts.

CONTAINMENT OF POLIOVIRUSES

10. Efforts to contain poliovirus type 2 were implemented progressively in 2016 and 2017, guided by 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 (GAPIII).¹ Guidance for non-poliovirus facilities to minimize risk of sample collections potentially infectious for polioviruses is being finalized, so as to support the last steps in the identification, destruction and transfer of remaining type 2 polioviruses to, or their retention in, certified poliovirus-essential facilities. The Global Commission for the Certification of the Eradication of Poliomyelitis has accepted responsibility for global containment oversight, in accordance with the Containment Certification Scheme to support the WHO Global Action Plan for Poliovirus Containment.² A Containment Advisory Group has been established to address technical issues related to GAPIII and some amendments to GAPIII have been recommended. The Secretariat is supporting the strengthening of technical capacity of national authorities for containment by training auditors in GAPIII and the Containment Certification Scheme.

11. As at January 2018, 174 countries and territories reported that they no longer hold wild or vaccine-derived poliovirus type 2, 28 reported that they intend to retain type 2 polioviruses in 91 poliovirus-essential facilities, and two were completing their reports. Inventories of materials containing type 2 polioviruses will have to be repeated, after interruption of transmission, in all countries that were affected by circulating vaccine-derived poliovirus type 2 outbreaks. Of the 28 countries planning to retain type 2 polioviruses, 18 have made significant progress with the establishment of national authorities for containment and are preparing to certify their designated poliovirus-essential facilities against the implementation of the containment requirements described in GAPIII.

12. Despite increasing interest and efforts demonstrated by all stakeholders, accelerating implementation of polioviruses containment requires intense commitment from all Member States so that the certification of poliovirus eradication can be achieved and sustained. Full implementation of resolution WHA68.3 (2015) on poliomyelitis will secure the full humanitarian, health and economic

¹ 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 (GAPIII). Geneva: World Health Organization; 2015 (http://polioeradication.org/wp-content/uploads/2016/09/GAPIII_2014.pdf, accessed 1 March 2018).

² Containment certification scheme to support the WHO global action plan for poliovirus containment. Geneva: World Health Organization; 2017 (http://polioeradication.org/wp-content/uploads/2017/03/CCS_19022017-EN.pdf, accessed 17 October 2017).

benefits associated with global polio eradication: no child will ever again face lifelong paralysis due to any poliovirus strain, and the world will reap savings of US\$ 50 billion, mostly in developing country settings – funds that can be used to meet other urgent public health needs.

13. Recognizing that poliovirus transmission levels are currently at the lowest point in history and the feasibility of eradication in the short-term is a realistic expectation, an urgent intensification of containment activities by all parties is necessary. Accelerated efforts and activities are needed to ensure that the highest containment requirements are rapidly and fully implemented in order to ensure a polio-free world is not jeopardized by breaches in containment. The Secretariat therefore proposes to the Health Assembly for its consideration a resolution seeking international consensus on containment (see document A71/26 Add.1).

FINANCING THE GLOBAL POLIO ERADICATION INITIATIVE

14. Thanks to the generous continuing support of the international development community, including Member States (including those where the poliovirus remains endemic and those that are donors to the Global Polio Eradication Initiative), multilateral and bilateral organizations, development banks, foundations and Rotary International, the budget for planned activities for 2017 was fully financed. At the most recent Rotary International Convention (Atlanta, Georgia, United States of America, 10–14 June 2017) numerous public- and private-sector partners from around the world joined Rotary International in announcing historic pledges of new funds, bringing the total amount pledged to US\$ 1200 million, towards the additional US\$ 1500 million budget validated by the Polio Oversight Board. Since publication of an earlier version of this report, the global community has made additional pledges, including: €21.9 million from Germany, Sw.fr 45 000 from Liechtenstein, and US\$ 7.06 million from Japan. Member States are strongly encouraged to operationalize pledges and commitments as rapidly as possible and continue to make their best efforts to provide flexibility in their allocations so as to ensure uninterrupted programme operations. In order to ensure the achievement and maintenance of a polio-free world in the most cost-effective way, the Global Polio Eradication Initiative will continue to refine its multiyear budget based on evolving epidemiology, as efforts to mobilize additional funding will continue, with particular focus on securing flexible resources and resources against specific gaps.

ACTION BY THE HEALTH ASSEMBLY

15. The Health Assembly is invited to note the report and consider the draft resolution set out in document A71/26 Add.1.

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