

Poliomyelitis

Report by the Secretariat

1. At the time of writing (November 2015), strong progress continues to be made towards each of the four objectives of the Polio Eradication and Endgame Strategic Plan 2013–2018 (the Endgame Plan). With only Afghanistan and Pakistan remaining endemic for poliomyelitis, wild poliovirus transmission is at the lowest levels in history, with the fewest-ever reported cases from the fewest-ever affected countries. In resolution WHA68.3 on poliomyelitis, adopted in May 2015, the World Health Assembly recognized progress made towards interrupting transmission and towards the phased removal of oral polio vaccines, and urged Member States to fully finance and implement the Endgame Plan.

2. The declaration of 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. In September 2015, the Polio Oversight Board of the Global Polio Eradication Initiative reviewed progress and concluded that wild poliovirus transmission is more likely to be interrupted in 2016 than in 2015. This delay shifts the target date for certification of global polio eradication to 2019 and increases the cost of completing polio eradication by US\$ 1500 million. In October 2015, WHO's Strategic Advisory Group of Experts on immunization confirmed its recommendation that the withdrawal of oral polio vaccines containing the type 2 component should occur during the period 17 April–1 May 2016 in all countries that are using trivalent oral polio vaccine through a globally-coordinated replacement of this vaccine by the bivalent oral polio vaccine. The Group also reaffirmed that, in preparation for this global event, it is crucial that countries meet established deadlines to identify facilities holding wild or vaccine-derived poliovirus type 2, destroy all type 2 poliovirus materials and, only where necessary, appropriately contain type 2 poliovirus in essential poliovirus facilities.

INTERRUPTION OF WILD POLIOVIRUS TRANSMISSION

3. As at 20 October 2015, 51 cases of paralytic poliomyelitis due to wild poliovirus had been reported globally in the year, compared to 246 for the same period in 2014. All the cases were reported from Afghanistan and Pakistan and were caused by wild poliovirus type 1. On 20 September 2015, the Global Commission for the Certification of Poliomyelitis Eradication declared global eradication of wild poliovirus type 2. Wild poliovirus type 3 has not been detected globally since November 2012.

Endemic countries – Afghanistan and Pakistan

4. In Pakistan, 38 cases were reported in 2015 to 20 October, compared to 209 cases for the same period in 2014. In Afghanistan, 13 cases were reported, compared to 12 cases for the same period in 2014. In Pakistan and Afghanistan, the interruption of wild poliovirus transmission depends on filling

chronic gaps in strategy implementation and being able to vaccinate children in infected areas that have been difficult to access owing to insecurity.

5. In Pakistan, a national polio emergency action plan is being overseen directly by the office of the Prime Minister. Emergency Operations Centres at federal and provincial levels ensure almost real-time monitoring of activities, implementation of corrective action and increased accountability and ownership at all levels. Most importantly, the national plan focuses on identifying chronically missed children and reasons why they are missed, and implementing area-specific approaches to overcome these challenges. As a result, innovations are being developed and operational deficits in the programme are being increasingly redressed, and access continues to improve in previously inaccessible areas. Nevertheless, Pakistan in 2015 accounts for 80% of all wild poliovirus cases worldwide. Vaccination coverage gaps remain in: Peshawar in Khyber Pakhtunkhwa; Khyber Agency, North Waziristan and South Waziristan in the Federally Administered Tribal Areas; Karachi and northern Sindh; and areas of Baluchistan.

6. In Afghanistan, children are missed because of both inaccessibility and operational deficits in accessible areas. A temporary suspension of vaccination activities by local leaders in some areas of Southern Region was resolved by highlighting the importance of maintaining the neutrality of public health efforts. Although a national emergency action plan has been established, its implementation is incomplete. Stronger coordination is needed through a better-functioning emergency operations centre to enable monitoring, timely corrective action and accountability to reach persistently-missed children.

Recently-endemic countries – Nigeria

7. In Nigeria, no case due to wild poliovirus type 1 has occurred since 24 July 2014; as a result, Nigeria was officially removed from the list of endemic countries on 25 September 2015.

International spread of wild poliovirus

8. Episodes of international spread of poliovirus continued in 2015 with both Afghanistan and Pakistan exporting virus across their borders. Minimizing the risk and consequences of new international spread of polioviruses requires: full implementation of the eradication strategies in the remaining infected areas; comprehensive application of the temporary recommendations issued by the Director-General under the International Health Regulations (2005); and heightened surveillance globally to facilitate a rapid response to new cases. At its meeting on 10 November 2015, the IHR Emergency Committee noted with concern the current outbreaks due to circulating vaccine-derived poliovirus types 1 and 2 and the emergence of such strains in three WHO regions in 2015, particularly at this stage of the Polio Endgame. The Committee recommended extending the temporary recommendations to countries affected by such outbreaks (previously, the recommendations had been limited to countries affected by wild poliovirus).

Circulating vaccine-derived polioviruses type 1

9. In 2015, in Madagascar, nine new cases of a circulating vaccine-derived poliovirus type 1 were reported, genetically linked to isolates of the same strain first detected in 2014. In Ukraine, two cases were reported, with onset of paralysis on 30 June 2015 and 7 July 2015. In the Lao People's Democratic Republic, two cases were reported on October 2015, with onset of paralysis on 7 September and 7 October 2015. In Madagascar, national efforts continue to be intensified to stop the prolonged circulation. In the Lao People's Democratic Republic, a comprehensive outbreak response

was launched immediately after confirmation of the first reported case. In Ukraine, an outbreak response commenced on 21 October 2015 after a delay of several weeks.

Circulating vaccine-derived polioviruses type 2

10. It is crucial that all outbreaks of circulating vaccine-derived poliovirus type 2 (cVDPV2) are stopped ahead of the planned removal of the type 2 component in oral polio vaccine in April 2016. In Nigeria, one case of disease due to cVDPV2 was reported, with onset of paralysis on 16 May 2015, related to a strain first isolated from environmental samples in August 2014. In Guinea, one case due to cVDPV2 was detected with onset of paralysis on 20 July 2015, related to a strain last detected in the country in August 2014. In Nigeria, the outbreak response is part of the national emergency action plan, overseen by the office of the President. In Guinea and border areas of Mali, outbreak response was initiated within two weeks of confirmation of the outbreak. A strain isolated from a case with onset of paralysis in April 2015 detected in South Sudan is being considered as a circulating strain (cVDPV2), which poses a risk of further spread in the conflict-affected areas. Response activities are ongoing and the strain has not been detected since April. Vaccine-derived poliovirus emergencies happen only when routine immunization coverage is low, highlighting the importance of strengthening routine immunization systems.

11. In the first half of 2015, in close consultation with stakeholders, the Global Polio Eradication Initiative conducted a midterm review of progress towards the implementation of the Endgame Plan. It concluded that the key strategic elements required to reach polio eradication are in place, but it identified gaps that need a refocusing of priorities, in particular on filling gaps in surveillance, reaching missed children and enhancing outbreak preparedness and response in high-risk areas. A comprehensive plan is being developed to operationalize the recommendations of the midterm review.

WITHDRAWAL OF THE TYPE 2 COMPONENT IN ORAL POLIOVIRUS VACCINE

12. On 20 September 2015, the Global Commission for the Certification of Poliomyelitis Eradication declared that wild poliovirus type 2 has been eradicated, with the last detected case occurring in 1999. On 20 October 2015, the Strategic Advisory Group of Experts on immunization reviewed the situation of type 2 vaccine-derived polioviruses and progress towards global readiness for the coordinated, phased removal of oral polio vaccines and confirmed that withdrawal of type 2 oral polio vaccine, through the switch from trivalent oral polio vaccine to bivalent (types 1 and 3) oral polio vaccine, should occur between 17 April and 1 May 2016, in all countries using trivalent oral polio vaccine.

Global vaccine supply to prepare for the trivalent to bivalent oral polio vaccine switch

13. To prepare for the switch to bivalent oral polio vaccine, all countries have committed themselves to introduce inactivated poliovirus vaccine into their routine immunization programmes. The level of commitment from countries to meet this goal has been exceptional. The Strategic Advisory Group of Experts on immunization noted the reduction in inactivated polio vaccine supply due to technical difficulties manufacturers have encountered in scaling up production. The Group advised the prioritization of the use of inactivated poliovirus vaccine by ensuring introduction in the higher risk tier 1 and 2 countries before the switch; maintaining stocks of inactivated poliovirus vaccine and monovalent type 2 oral polio vaccine for response to a type 2 poliovirus outbreak after withdrawal of oral polio vaccine type 2; and minimizing the period of delay in inactivated poliovirus vaccine supply and the number of countries affected. The countries affected by the delay are in lower

risk tier 3 and 4. As population immunity against type 2 poliovirus is high in these countries (owing to consistently high routine immunization coverage), the risk of vaccine-derived poliovirus type 2 emergence and spread is minimal. It is expected that all countries will receive inactivated poliovirus vaccine supplies within about three months of the switch. Catch-up vaccination should be conducted when sufficient supply is available.

14. The Strategic Advisory Group of Experts on immunization further reinforced the position that a stockpile of monovalent oral polio vaccine type 2 should be established and maintained in order to facilitate outbreak response, should it be needed. The Health Assembly in resolution WHA68.3 endorsed an approach to management and release of this stockpile. UNICEF and WHO have contracted two vaccine manufacturers which have established a global stockpile in bulk for up to 500 million doses. Before April 2016, 50 million doses will be available in ready-to-use vials. Preparations continue to ensure availability of bivalent oral poliovirus vaccine for use in all countries' routine immunization programmes in time for the switch in April 2016.

Strengthening routine immunization

15. The Global Polio Eradication Programme initiated a joint programme of work with the GAVI Alliance and other partners to support efforts to strengthen routine immunization in 10 "focus" countries with significant polio resources. Six of these countries – Chad, Democratic Republic of the Congo, Ethiopia, India, Nigeria and Pakistan – have developed annual national immunization plans that build on polio assets to improve broader immunization goals, resulting in as much as a 22% reduction in unimmunized children in some areas, in 2014 compared to 2013.¹ Polio staff in these countries spend as much as 50% of their time on broader immunization and public health issues.

CONTAINMENT

16. In 2015, pursuant to resolution WHA68.3, the Global Commission for the Certification of the Eradication of Poliomyelitis and the Strategic Advisory Group of Experts on immunization urged accelerated implementation 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 (GAP III). Specifically, all Member States should complete Phase I (Preparation for containment of poliovirus type 2) which includes establishing an inventory of facilities holding polioviruses, destroying all wild poliovirus materials by the end of 2015 and destroying all Sabin type 2 poliovirus materials by July 2016. Any type 2 poliovirus materials not destroyed should be securely contained in designated "poliovirus essential" facilities. For implementation of Phase II (Poliovirus type 2 containment period) Member States hosting essential poliovirus facilities (vaccine production, research and repositories) should designate a national containment authority, establish biorisk management regulations aligned with GAP III, and certify secure containment of poliovirus materials. The Secretariat is supporting Member States in implementing the global action plan.

LEGACY PLANNING

17. In 2015, acceleration of polio legacy planning has continued. Legacy planning should serve three purposes. First, it ensures that those functions needed to maintain a polio-free world after

¹ Global Polio Eradication Initiative Semi-Annual Status Report, January to June 2015, available at www.polioeradication.org (accessed 26 November 2015).

eradication (for example, immunization, surveillance, outbreak preparedness and response, and facility containment of polioviruses) are brought into the mainstream of continuing national public health programmes. Secondly, it ensures that the knowledge generated and lessons learnt from polio eradication activities are shared with other health initiatives. Thirdly, where feasible and appropriate, it assures the transfer of capabilities, assets and processes in order to support other health priorities.

18. Polio legacy planning needs primarily to occur at national level. The leadership of Member States is crucial to this process. If polio legacy planning is well-executed, investments in polio eradication will benefit other development goals in the long term. Human resources, facilities and processes funded through the Global Polio Eradication Initiative are substantially involved in the delivery of non-polio eradication functions, particularly in the areas of immunization, surveillance and emergency response. A successful legacy planning process will ensure that these essential functions are sustained after polio eradication funding ceases. To support Member States in the process of polio legacy planning, the Global Polio Eradication Initiative¹ has developed guidelines for preparing a transition plan.¹

FINANCE AND MANAGEMENT OF THE GLOBAL POLIO ERADICATION INITIATIVE

19. Thanks to continued, generous support from the international development community, by June 2015 the Global Polio Eradication Initiative had received US\$ 2682 million in contributions, with pledges of US\$ 2185 million against the overall, original budget for 2013–2018 of US\$ 5500 million. The midterm review evaluated future financial needs of the Global Polio Eradication Initiative. Presented with the outcomes of the midterm review, the Polio Oversight Board endorsed a revised financial scenario. The delay in achieving interruption of wild poliovirus transmission has resulted in the need for an additional year of intense polio eradication activities, increasing the budgetary requirements by US\$ 1500 million. Even with full and rapid realization of all existing pledges, there would remain a funding gap of US\$ 1996 million against the new budgetary requirements through 2019. The Initiative's partners have begun financial planning for the period 2016–2019 for endorsement by the Polio Oversight Board in February 2016.

ACTION BY THE EXECUTIVE BOARD

20. The Board is invited to note the report and to urge Member States to ensure full implementation of resolution WHA68.3.

= = =

¹ Global Polio Eradication Initiative. Polio legacy planning: guidelines for preparing a transition plan, revised 1 June 2015, available at <http://www.polioeradication.org/ResourceLibrary/Resourcesforpolioeradicators.aspx> (accessed 26 November 2015).