

Poliomyelitis

Polio eradication

Report by the Director-General

INTRODUCTION

1. Following presentation of the Global Polio Eradication Initiative Polio Endgame Strategy 2019–2023¹ to the Seventy-second World Health Assembly,² this report provides an update on the status of polio eradication against the three key goals of the strategy and summarizes the remaining challenges to securing a lasting polio-free world.

ERADICATION

Wild poliovirus transmission

2. The last reported case of poliomyelitis due to wild poliovirus type 2 was reported in 1999. Wild poliovirus type 3 (WPV3) has not been detected globally since November 2012. Since that time, all cases of paralytic poliomyelitis due to wild poliovirus have been caused by wild poliovirus type 1. In 2019, wild poliovirus type 1 continues to be detected in parts of Afghanistan and Pakistan.

3. In Afghanistan and Pakistan, cross-border endemic virus transmission is happening in two corridors: the first links eastern Afghanistan with Khyber Pakhtunkhwa in Pakistan, and the second links southern Afghanistan (Kandahar and Hilmand) with the Quetta block, Balochistan province, in Pakistan, as well as Karachi (Pakistan). However, continued isolation of the virus through environmental sampling in other parts of both countries points to widespread geographic transmission.

4. An increase in newly-reported cases in 2019 compared to 2017 and 2018, in particular in Pakistan, highlights the continued geographic spread of the virus (including internationally). Gaps in strategic implementation of vaccination activities mean a high likelihood that the number of cases will continue to increase and that transmission will continue well into 2020.

5. In both countries, the focus for the second half of 2019 is to conduct an in-depth analysis of all aspects of the programme, and put in place new emergency measures to improve operations by the start of the low transmission season at the end of 2019 and early 2020. The key to fully identifying area-

¹ Available at <http://polioeradication.org/wp-content/uploads/2019/06/english-polio-endgame-strategy.pdf> (accessed on 10 October 2019).

² Document A72/9.

specific challenges and implementing the solutions is a high-level commitment to polio eradication on the part of the newly-elected authorities.

6. To support national governments, the Global Polio Eradication Initiative partnership has launched a “hub” of experts based in Amman, Jordan, to provide dedicated, rapid and coordinated support and expertise to these countries.

7. The polio programme has also strengthened its integration efforts, launching a more systematic collaboration with routine immunization programmes and fostering new partnerships with broader health initiatives.

8. No wild poliovirus has been detected in Africa from any source since it was last detected in north-eastern Nigeria in September 2016. Although some surveillance gaps remain in parts of the Lake Chad area, surveillance is significantly stronger today than it was in 2016. The certification of the eradication of wild poliovirus in the WHO African Region could occur as early as 2020.

Circulating vaccine-derived polioviruses

Africa

9. In 2019, several outbreaks due to genetically-distinct circulating vaccine-derived poliovirus type 2 continue to spread across different regions. In Nigeria, an outbreak due to type 2 circulating vaccine-derived poliovirus which had originated in Jigawa State continues to spread both nationally and internationally, as the strain has been identified in Benin, Cameroon, Ghana and Niger. In the Democratic Republic of the Congo, several strains of circulating vaccine-derived polioviruses type 2 continue to spread nationally, and type 2 circulating vaccine-derived poliovirus was also detected in neighbouring Angola and the Central African Republic. In the Horn of Africa, a type 2 circulating vaccine-derived poliovirus initially detected in Somalia in 2017 has been confirmed in neighbouring Ethiopia.

10. In all instances, the continued spread of existing outbreaks due to circulating vaccine-derived poliovirus type 2 as well as the emergence of new type 2 circulating vaccine-derived polioviruses point to insufficient quality of outbreak response with monovalent oral polio vaccine type 2 and gaps in routine immunization coverage. The risk of further spread of such strains, or emergence of new strains, is magnified by an ever-increasing mucosal-immunity gap to type 2 poliovirus on the continent, following the switch from trivalent to bivalent oral polio vaccine in 2016.

11. Monovalent oral polio vaccine type 2 is currently the best available tool to respond to outbreaks of type 2 vaccine-derived polioviruses. It is the only vaccine currently available that can induce the mucosal immunity necessary to interrupt virus circulation. However, if outbreak response with this vaccine is not of high quality, and coverage targets are not met or vaccine management is substandard, there is an increased risk of both ongoing transmission and emergence of future vaccine-derived polioviruses type 2.

12. The programme is continuously evaluating existing and new strategies¹ to address the increasingly worrying situation regarding circulating vaccine-derived poliovirus type 2, including by: evaluating modelling data, closely monitoring vaccine supply, assessing the geographic scope for the

¹ The draft Strategy for Control of cVDPV2, 2019–2021, an addendum to the Polio Endgame Strategy 2019–2023, will be made available by mid-December 2019 at: <http://polioeradication.org/> (accessed 25 November 2019).

use of monovalent oral polio vaccine type 2 and quality of operations, and supporting the development and rapid licensure of a novel oral polio vaccine type 2 (currently in phase II clinical trials and also being submitted to emergency use listing procedure, which could contribute to its accelerated field availability), which would have a substantially lower risk of seeding new type 2 vaccine-derived polioviruses.

Asia

13. In both Indonesia and Papua New Guinea, coordinated, cross-regional, cross-border outbreak response activities have been conducted to address two separate outbreaks due to genetically-distinct circulating vaccine-derived poliovirus type 1 that affected their respective border areas. No new viruses have been detected since November 2018 (in Papua New Guinea), and February 2019 (in Indonesia), and it is likely that both outbreaks have been successfully stopped. An independent outbreak response assessment in Papua New Guinea in June 2019 noted the strong coordination between the Government, WHO, UNICEF and Gavi, the Vaccine Alliance, in using the outbreak response as an opportunity to reinvigorate routine immunization in a sustainable manner. This experience is helping to inform similar activities in other outbreak settings.

14. In Myanmar, the response to an outbreak due to circulating vaccine-derived poliovirus type 1 is ongoing, following detection of the strain in two patients with acute flaccid paralysis from Kayin province in July 2019. In China, the Government is responding to a circulating vaccine-derived poliovirus type 2 isolate confirmed in July 2019. In the Philippines, a circulating vaccine-derived poliovirus type 1 was confirmed in September 2019, and two vaccine-derived poliovirus type 2 isolates were being investigated, with appropriate response to both events being planned.

INTEGRATION

15. Integration is one of the three key goals of the new strategy, highlighting the importance that the Global Polio Eradication Initiative is placing on working together with other actors in a systematic and sustained way.

16. The polio programme has a long history of collaborating with other health initiatives. Every year, on average, 82 million doses of vitamin A, 64 million doses of measles vaccine, 34 million deworming tablets, 7 million doses of yellow fever vaccine, 5 million doses of tetanus toxoid vaccine and 4 million insecticide-treated bed-nets are delivered alongside oral polio vaccine during polio activities. Integrated polio/measles supplementary immunization activities have been successfully implemented in seven out of the 11 countries planned in 2019.

17. Polio staff on the ground spend approximately 50% of their time working on other disease intervention areas, such as conducting surveillance for other diseases, supporting outbreak responses and helping respond to natural disasters. Additionally, the polio infrastructure and planning capacity are frequently used to implement supplementary immunization activities with other antigens (notably measles activities, which are often planned, implemented and monitored with strong support from the polio infrastructure). In the new strategy, the focus on integration calls on the polio programme to ensure a systematic approach to integration, and closer collaboration with other partner programmes, including to support implementation of interventions aimed at tackling broader community health needs and foster strengthened engagement for polio and broader vaccination uptake.

18. The new focus on integration will leverage the Global Polio Eradication Initiative's human and physical assets, systems and expertise to protect populations through strengthened immunization services and enhanced emergency response. Collaboration with routine immunization, surveillance and emergencies groups ensures that core capacities are maintained and strengthened, and helps mitigate risks of new outbreaks in areas of weak routine immunization.

19. The 2018/2019 outbreak due to circulating vaccine-derived poliovirus type 1 in Papua New Guinea is a strong example of the results that systematic, early collaboration with other partners can bring about, in terms of both stopping outbreaks and preventing future ones from occurring. In addition to implementing internationally-agreed outbreak response, the polio programme worked with partners such as Gavi, and the immunization teams of WHO, UNICEF and the U.S. Centers for Disease Control and Prevention to tackle the root cause of the outbreak, namely inadequate routine immunization coverage rates in marginalized areas. Improving routine immunization must be seen as a key part of the emergency response to stopping outbreaks and eradicating polio. The approach in Papua New Guinea enabled other public health interventions to be delivered alongside polio vaccine, such as vitamin A and other vaccinations, while ensuring that the infrastructure built up to stop the outbreak will be sustained in the longer term. The programme is committed to following this model for all other outbreaks due to circulating vaccine-derived poliovirus in the future.

20. The current polio surveillance infrastructure has also played an important role in expanding and strengthening vaccine-preventable disease surveillance beyond polio. This infrastructure enhances current surveillance for measles, rubella and congenital rubella syndrome and other vaccine-preventable diseases, or emerging and re-emerging diseases. The new strategy supports the integration of polio field and laboratory surveillance with other surveillance systems.

21. Under the leadership of the WHO immunization programme, a joint accountability framework across the Global Polio Eradication Initiative and the immunization community is being developed to support the monitoring and implementation of the integration goal of the strategy. The framework will define roles and responsibilities, identify critical activities for timely implementation and track progress.

CONTAINMENT AND CERTIFICATION

22. In 2019, the Global Commission for the Certification of the Eradication of Poliomyelitis continued to intensify its work and review the criteria that will need to be met to achieve the global certification of wild poliovirus eradication. Within this context, the Commission recommended a process of sequential certification of wild poliovirus eradication (following the global certification of wild poliovirus type 2 eradication in 2015), and confirmation of the absence of vaccine-derived polioviruses, which would occur after the global certification of wild polioviruses and subsequent to the global withdrawal of bivalent oral polio vaccine.

23. With no wild poliovirus type 3 detected from any source since 2012, the Commission concluded at its meeting in October 2019 that this strain has been globally eradicated

24. Efforts to contain type 2 poliovirus were intensified in 2019. As at July 2019, 26 countries plan to retain type 2 poliovirus materials in 78 designated poliovirus-essential facilities. Efforts are 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 and by WHO guidance on minimizing risks for facilities collecting, handling or storing materials potentially infectious for polioviruses. The Containment Advisory Group continues to provide advice on issues related to the interpretation and implementation of GAPIII.

25. Following the initiation of the global Containment Certification Scheme in 2018, Global Certification Commission-endorsed certificates have been granted to vaccine manufacturing facilities in Indonesia and Sweden and to laboratories in South Africa and the United States, recognizing them as suitable candidates to become poliovirus-essential facilities. Additional applications are under review by the Commission.

26. In resolution WHA71.16 (2018), Member States committed to intensifying efforts to accelerate progress towards poliovirus containment. National authorities for containment have been established in 25 of 26 countries hosting facilities that are planning to retain type 2 poliovirus materials. Poliovirus-essential facilities have until 31 December 2019 to enter into the Containment Certification Scheme by submitting applications for participation in the scheme to their national authorities for containment.

27. The Global Polio Eradication Initiative partners continue to advocate for the reduction in number of facilities planning to retain type 2 poliovirus. Training sessions and webinars on GAPIII and the risks and costs associated with poliovirus type 2 material retention have been conducted for 27 facilities in the WHO Region of the Americas and European Region. As a result, two designated poliovirus-essential facilities have opted to destroy or transfer their type 2 poliovirus materials rather than retain them. Additional in-country visits and training sessions are already scheduled.

28. WHO is helping build capacity for GAPIII auditing in all countries with facilities planning to retain type 2 poliovirus materials. As at October 2019, 13 GAPIII auditor training sessions have been provided by WHO, with four taking place in 2019. WHO is also providing opportunities for trained auditors to become qualified as lead GAPIII auditors by performing supervised facility audits.

29. National efforts to complete inventories for types 1 and 3 wild poliovirus materials have continued in 2019. In light of the Commission's certification of the eradication of wild poliovirus type 3 in October 2019, type 3 inventories have been prioritized. The initial focus for containment following certification will be the inventory, destruction or transfer of type 3 wild and vaccine-derived poliovirus infectious and potentially infectious materials. Countries planning to retain these materials within a poliovirus-essential facility must have established a national authority for containment and should enrol all facilities in the Containment Certification Scheme.

STRENGTHENING PARTNERSHIPS AND NEW ENABLING FACTORS

30. The Global Polio Eradication Initiative partnership continues to strengthen its governance and management structures. Coordination with Gavi has been formalized, with Gavi officially joining the Polio Oversight Board in 2019. This enhanced collaboration will be at the centre of the integration goal of the new strategy, as was seen in the joint effort in Papua New Guinea.

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. Available at <http://apps.who.int/iris/handle/10665/208872> (accessed 24 July 2019).

31. In 2019, continued political will for polio eradication was demonstrated by the Group of 7 (G7) and the Group of 20 (G20), through the G7 Health Ministers' meeting in May in Paris, France, during which they followed up on previous G7 commitments on polio eradication, and through the G20 Heads of State declaring at their Summit in June in Osaka, Japan: "we reaffirm our commitment to eradicate polio ...". The G7 and G20 global health commitments focus on the implementation of the 2030 Agenda and making progress towards achieving universal health coverage. The Global Polio Eradication Initiative is working to further key universal health coverage priorities by improving the delivery of health services, developing and scaling health infrastructure, and effectively mobilizing domestic resources to confront key health issues.

32. In November 2019, the Reaching the Last Mile Forum in Abu Dhabi, United Arab Emirates, will focus international attention on tackling infectious diseases, and provide an opportunity for world leaders and civil society organizations, notably Rotary International which is at the origin of this effort, to contribute to the last mile of polio eradication. The Global Polio Eradication Initiative 2019–2023 Investment Case defines the impact of investing in polio eradication. Besides the savings of more than US\$ 27 billion in health costs that has resulted from eradication efforts since 1988, a sustained polio-free world will generate US\$ 14 billion in expected cumulative cost savings by 2050, when compared with the cost countries will incur for controlling the virus indefinitely.

33. Another enabling factor in polio eradication is the increased focus on gender as a determinant of health-seeking behaviours and a critical variable in vaccination outcomes. The programme is committed to identifying and addressing gender-related barriers to immunization, communication and disease surveillance and to advancing gender equality. The Global Polio Eradication Initiative Gender Equality Strategy 2019–2023¹ and implementation plan provide a clear framework for action to guide the programme's work on gender-responsive programming.

ACTION BY THE EXECUTIVE BOARD

34. The Executive Board is invited to note the report.

= = =

¹ Available at http://polioeradication.org/wp-content/uploads/2019/08/20190829_Gender_Strategy_V14_web.pdf (accessed on 10 October 2019).