



Progress report on eradication of poliomyelitis

1. Introduction/highlights

1. Wild poliovirus transmission is at the lowest levels in history and is limited to a few discrete zones in the two remaining polio-endemic countries in the Eastern Mediterranean Region – Afghanistan and Pakistan. In 2017 to date, only six cases due to wild poliovirus type 1 have been reported in the Region, four from Afghanistan and two from Pakistan.
2. Intensified supplementary immunization activities (SIAs) have been carried out across the Region in endemic and at-risk countries. A total of 31 SIAs, including case response campaigns, were carried out between January and June 2017, during which 223 million doses of polio vaccine were administered.
3. An outbreak of circulating vaccine-derived poliovirus type-2 (cVDPV2) has recently been confirmed in the Syrian Arab Republic, centred on Deir-Ez-Zhor governorate. There have been serious access issues in Deir-Ez-Zhor and neighbouring governorates for more than one year. An outbreak response has been initiated.
4. One cVDPV2 case and several environmental isolates were reported from Quetta city in Pakistan in 2016 and successful vaccination response activities were conducted.
5. The International Health Regulations (IHR) Emergency Committee on the international spread of poliovirus, in its thirteenth meeting on 24 April 2017, concluded that the current epidemiology of wild poliovirus and circulating vaccine-derived polioviruses (cVDPVs) still constitutes a Public Health Emergency of International Concern (PHEIC). Consequently, temporary recommendations on immunization of travellers remain in effect and will be reconsidered at the subsequent meeting of the Emergency Committee. Afghanistan and Pakistan remain on the list of states infected with wild poliovirus and Pakistan remains on the list of states infected with cVDPV2. The Syrian Arab Republic will be added to the list of states infected by cVDPV2 during the next meeting of the Emergency Committee.
6. Further verification of the complete withdrawal of the type-2 component of oral polio vaccine is being undertaken in some Member States following the global switch from trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV) in 2016.
7. All Member States submitted annual updates or progress reports to the Regional Certification Commission (RCC) in May 2017, confirming that all wild polioviruses type-2 and vaccine-derived polioviruses type-2 (VDPV2) in laboratories of Member States of the Region have been either destroyed or transferred to polio essential facilities.
8. The World Health Assembly in May 2017 urged the Director-General to make polio transition a key priority for the Organization at all levels. Four Member States in the Region, namely Afghanistan, Pakistan, Somalia, and Sudan, are among the 16 globally prioritized countries for polio transition. A Regional Polio Transition Steering Committee has been formed and has held two meetings to date on planning the transition process.

2. Interruption of wild poliovirus transmission

9. As of 20 June 2017, six wild poliovirus type-1 cases (WPV1) have been reported globally, all from the two remaining polio-endemic countries in the Region (four cases from Afghanistan and two cases from Pakistan). This compares to 19 cases in total reported from both countries during the same period in 2016. The number of polio cases reported so far in 2017 is the lowest since the establishment of the Global Polio

Eradication Initiative in 1988. However, in the first half of 2017 wild poliovirus continued to be isolated through environmental surveillance over a significant geographical range in Pakistan.

10. On 20 September 2015, the Global Commission for the Certification of Poliomyelitis Eradication declared the global eradication of wild poliovirus type-2.

11. Wild poliovirus type-3 has not been detected globally since November 2012.

3. Vaccine-derived polioviruses

12. After the tOPV-bOPV switch during the period 17 April–1 May 2016, isolation of any type-2 poliovirus (Sabin, VDPV or WPV), from any source, is a notifiable event under the IHR (2005), requiring thorough investigation and response if needed.

13. An outbreak of cVDPV2 has emerged in conflict-affected areas of the Syrian Arab Republic. As of 20 June 2017, a total of 17 cVDPV2 cases have been confirmed (16 cases from Deir Ez-Zhor and 1 from Raqqa). The date of onset of paralysis of the first known case is 3 March 2017. An outbreak response is being coordinated with the government and other partners. Technical support is being provided to Syrian Arab Republic through surge missions.

14. Circulating vaccine-derived polioviruses were also reported in 2016 from the Quetta district in Pakistan, an immunization response was successfully conducted in the first quarter of 2017.

15. Ambiguous VDPVs (aVDPVs) were reported from Pakistan, Yemen and Somalia in 2016 and from Pakistan in 2017, while VDPVs isolated from immunodeficient individuals (iVDPVs) were reported from Egypt, Islamic Republic of Iran, Iraq and Palestine in 2016 and from Egypt in 2017.

16. WHO's Regional Centre for Emergencies and Polio Eradication has provided training to technical staff from Member States of the Region on responding to poliovirus type-2 events and outbreaks.

4. Endemic countries

17. The governments of Afghanistan and Pakistan and their implementing partners have developed robust National Emergency Action Plans (NEAPs) including innovative strategies to reach chronically missed children and those living in inaccessible areas.

18. Community-based vaccination by locally recruited and mainly female volunteers has markedly increased access to children in all endemic transmission zones in Pakistan.

19. Emergency Operation Centres (EOCs) have been established at national and subnational levels in both countries to coordinate the efforts of governments and partners and to closely monitor implementation of the NEAPs.

20. Inaccessibility and insecurity in some areas of the two endemic countries, limiting reach to children, and compromised supervision and monitoring of immunization activities in some key reservoir zones, remain significant issues.

5. At-risk countries

21. There are six 'at-risk' countries namely Iraq, Libya, Somalia, Sudan, Syrian Arab Republic and Yemen. All of them have access or security constraints to varying degrees which hamper efforts to maintain high population immunity and sensitive surveillance.

22. WHO's regional polio eradication team has designed a risk analysis model for these countries. The analysis is conducted quarterly to monitor progress in mitigating risk and to devise operational strategies.

23. The six countries continue to carry out SIAs and activities to strengthen surveillance. Technical support to these countries has been provided in 2016 and 2017.

6. Surveillance

24. Acute flaccid paralysis (AFP) surveillance continues to function in all Member States. Strong AFP surveillance remains the gold standard for detection of polio, however, environmental surveillance has proven to also be of value in understanding polio epidemiology. Environmental surveillance has been expanded from three countries in the Region (Afghanistan, Egypt and Pakistan) to include Jordan and Lebanon in 2017. Arrangements are in place for environmental surveillance to commence in Islamic Republic of Iran and Iraq before the end of the year. Environmental surveillance helps in the early detection of polioviruses from catchment areas, and in monitoring the impact of interventions. Plans include its expansion to all at-risk countries.

25. The AFP surveillance system reported 16 005 acute flaccid paralysis cases in 2016 compared with 13 214 in 2015, a 21% increase in reporting. In 2016, all Member States, except Djibouti and Morocco, met certification standard surveillance indicators for non-polio AFP rates and percentages of AFP cases with adequate specimens. Djibouti failed to meet both performance indicators and Morocco failed to meet the former. The AFP surveillance system is supported by an efficient network of WHO-accredited laboratories, which are meeting global standards. There is good coordination between field and laboratory surveillance teams.

7. Communications

26. In endemic and at-risk countries, communications outreach to build and maintain community demand and trust for polio vaccination continues to take place. Through a range of print, online and broadcast news outlets, communities are made aware of vaccination drives, and the importance of continued vaccination against the virus.

27. In Afghanistan and Pakistan, in addition to national and more generic public information, communications are also targeted and tailored to the local level taking into account specific social, cultural and political contexts. In Pakistan, in areas with relatively high numbers of refusals, outreach aims to build a sense of familiarity and trust around community vaccinators. Vaccinators are also being trained on interpersonal skills, and on how to address key areas of concerns of parents/caregivers, to enable them to make informed decisions about polio vaccination.

28. Communication activities tie in closely with social mobilization efforts, for which UNICEF is the lead partner agency.

8. Withdrawal of the type-2 component in oral polio vaccine – tOPV-bOPV switch

29. On 20 September 2015, the Global Commission for Certification for Poliomyelitis Eradication declared that wild poliovirus type-2 had been eradicated. One month later, the Strategic Advisory Group of Experts on Immunization (SAGE) reviewed the situation of type-2 VDPV epidemiology and progress towards global readiness for the coordinated, phased removal of oral polio vaccine, and confirmed that the withdrawal of type-2 oral polio vaccine should occur between 17 April and 1 May 2016, through the globally synchronized switch from tOPV (types 1, 2 and 3) to bOPV (types 1 and 3) vaccine, in all countries using tOPV.

30. All Member States of the Region have successfully implemented the switch.

31. Further verification of the withdrawal of the type-2 component will be conducted in conflict-affected countries where full access is an issue, and in countries where type-2 containing oral polio vaccine (mOPV2) has been used after the switch.

32. A global stockpile of mOPV2 has been established in order to facilitate outbreak response, should it be needed. The World Health Assembly in resolution WHA68.3 (2015) endorsed an approach for the management and release of the stockpile and urged Member States to establish procedures to authorize the importing and use of mOPV2 from the global stockpile, after its release has been authorized by the Director-General in the event of an emergency. Two countries in the Region, Pakistan and Syrian Arab Republic, have so far made use of this stockpile to respond to cVDPV2.

33. Post switch inactivated polio vaccine (IPV) supply: IPV was introduced into the EPI schedule in all Member States implementing the switch. However, a global shortage of IPV has occurred due to major manufacturing setbacks. To mitigate the risks associated with the withdrawal of the type-2 component of oral polio vaccine, in the context of the global IPV shortage, SAGE recommended prioritizing higher risk tier 1 and tier 2 countries for IPV supply, and maintaining a stock of IPV vaccine and monovalent OPV-2 for post switch response to poliovirus type-2 outbreaks. Egypt and Islamic Republic of Iran are particularly impacted by the global IPV shortage. Countries are encouraged to stretch the available amount of IPV by adopting fractional intra-dermal use of IPV (requiring only one fifth of a dose).

9. Certification of polio eradication

34. The RCC convened its thirty-first meeting from 16 to 18 May 2017 in Casablanca, Morocco.

35. Reports from all 21 Member States and Palestine were reviewed by RCC members and Secretariat staff. All reports, with the exception of Djibouti's, were provisionally accepted. Comments were provided on each report and formal approvals will be communicated following receipt of feedback from respective National Certification Committee chairs.

10. Containment

36. Significant progress has been made in the Region to contain type-2 polioviruses, in line with the WHO Global Action Plan (GAP III) to minimize poliovirus facility-associated risks after type-specific eradication of wild polioviruses and sequential cessation of oral polio vaccine use.

37. To assist countries in achieving containment, two regional meetings and a workshop on containment of polioviruses and potentially infectious materials have been held.

38. As of April 2016, 21 countries of the Region reported they had no wild poliovirus type-2 or vaccine-derived poliovirus type-2 (VDPV2). The Razi Institute in the Islamic Republic of Iran has been designated as a polio essential facility and is the only polio vaccine producing facility in the Region. It is also the only facility in the Region authorized to retain poliovirus type-2 materials. The National Institute of Health in Pakistan is considering applying for polio essential facility status to enable its polio laboratory to continue to carry out sero-surveys.

39. All countries that destroyed VDPV2 materials documented their destruction processes. Pakistan transferred its VDPV2 samples to the United Kingdom's National Institute for Biological Standards and Controls for research purposes.

40. A dashboard has been developed to monitor the progress of GAP III phase 1 containment activities.

11. Polio outbreak simulation exercise (POSE)

41. A standard training module for simulation exercises has been developed, consistent with global guidelines/SOPs.

42. The regional polio team facilitated 21 workshops in 18 countries in 2016 and 2017. Five workshops are scheduled for the remainder of 2017, including three refresher courses.

12. Transition planning

43. In 2016 and 2017, transition planning in the Region has been initiated, aiming to serve three purposes. First, it should ensure that those core functions needed to maintain a polio-free world after eradication (for example, immunization, surveillance, outbreak preparedness and response, containment and certification) are brought into the mainstream of continuing national public health programmes. Second, it should ensure that the knowledge generated and lessons learned from polio eradication activities are shared with other health initiatives. Third, where feasible and appropriate, it should ensure the transfer of polio programme capabilities, assets and processes in order to support other health priorities.

44. At the Seventieth World Health Assembly, Member States urged the Director-General to make polio transition a key priority for the Organization at its three levels, to present a comprehensive organizational transition plan by the end of 2017, and to report regularly on the planning and implementation of the transition process to the World Health Assembly, through the Regional Committees and the Executive Board.

45. The initial priority countries for transition planning in the Region are Afghanistan, Pakistan, Somalia and Sudan, where there are significant polio infrastructure and assets. These countries are among 16 globally prioritized countries for transition.

46. The Regional Director has approved a Regional Steering Committee on Polio Transition Planning. The Committee has convened two meetings so far and has decided to expand the scope of transition planning to include Iraq, Libya, Syrian Arab Republic and Yemen among the Region's priority countries.

47. Polio transition planning needs primarily to occur at national level. The leadership of Member States is crucial to this process. If polio transition planning is well-executed, investments in polio eradication will benefit other development goals in the long term.

48. Human resources, facilities and processes funded through the Global Polio Eradication Initiative are substantially involved in the delivery of non-polio functions, particularly in the areas of immunization, surveillance, and emergency response, e.g. cholera and measles campaigns in Iraq and Somalia. A successful transition planning process will ensure that these essential functions are sustained after polio eradication funding ceases.

13. The Islamic Advisory Group (IAG) for Polio Eradication

49. The IAG was constituted under the leadership of Al Azhar Al Sharif of Egypt, International Islamic Fiqh Academy (IIFA), Jeddah, and in collaboration with the Organization of Islamic Cooperation (OIC), and the Islamic Development Bank (IsDB).

50. The objective of the IAG is to provide high-level global leadership and guidance for building ownership, solidarity and support for polio eradication across the Muslim *ummah* confirming that polio vaccination fully conforms to Islamic principles and religious rulings.

51. In its third meeting in July 2016, while reiterating the support for global polio eradication efforts, the group decided to expand the work of the IAG to support key maternal and child health interventions, including immunization. A consultative meeting held in Cairo in October 2016 with participation of different departments of WHO, UNICEF, the United Nations Population Fund and representatives from the IAG was held to discuss and agree upon specific impactful interventions that the IAG will support.

52. Efforts of the National Islamic Advisory Group (NIAG) in Pakistan are well integrated with activities of the NEAP at the lowest administrative level (union council), through the support provided by Religious Support Persons in addressing misconceptions and vaccine refusals. A similar role is performed by the NIAG in Afghanistan in the five priority provinces.

14. Regional priorities for polio eradication in 2017 and 2018

53. The overriding priority is stopping WPV transmission in Afghanistan and Pakistan and supporting teams in both countries to implement their comprehensive and robust NEAPs.

54. Other priorities include maintaining high levels of immunity and where possible improving immunization services in 'at risk' countries; ensuring the highest possible quality of AFP surveillance; enhancing preparedness and response plans in all Member States of the Region to ensure early detection and appropriate response to any event or outbreak of WPV or cVDPV; streamlining certification and containment processes; and transition planning.

55. Polio teams and surge human resources in the Middle East and Horn of Africa will continue their support in line with the above mentioned programme priorities.

15. Finance and management of the Global Polio Eradication Initiative

56. In 2016, the Polio Oversight Board endorsed a revised financial scenario, which took into account the delay encountered in achieving interruption of WPV transmission, resulting in the need for an additional year of intense activities.

57. The scenario foresees an increase in global budgetary requirements between 2016 and 2019 of US\$ 1500 million, bringing the total budget estimates for the period to US\$ 3.864 billion. Extensive efforts are underway to mobilize these funds.

16. Actions proposed to the Sixty-fourth Regional Committee

58. The Regional Committee is invited to note the report and to request the following.

- Polio-endemic Member States enhance efforts to stop poliovirus transmission by thoroughly implementing their NEAPs.
- Member State(s) infected with circulating vaccine-derived poliovirus declare a national emergency as per the IHR and take all necessary measures to stop the outbreak within 120 days.
- Endemic and at-risk states declare transition planning as a priority and make maximum use of transition opportunities.
- All Member States:
 - support Afghanistan and Pakistan in implementing their NEAPS;
 - facilitate the implementation of the temporary recommendations of the Emergency Committee on Polio Eradication under the IHR (2005) by requesting proof of polio vaccination before issuing visas for travellers from states infected by WPV or cVDPV2;
 - maintain a high level of immunization coverage of high-risk groups, including refugees and internally displaced persons, through enhancing routine immunization, and if necessary, conducting targeted SIAs;
 - complete the implementation of phase II GAP III for containment of poliovirus type-2;
 - ensure highest possible quality of AFP surveillance, particularly among high-risk groups, including refugees, immigrants, and internally displaced communities, and immediately notify under IHR (2005) any poliovirus type-2 isolate (Sabin, vaccine-derived or wild);
 - conduct simulation exercises to test national preparedness to respond to polio outbreaks, and if necessary, update polio outbreak preparedness and response plans.