



## Progress report on eradication of poliomyelitis

### Introduction

1. In 2021, wild poliovirus type 1 (WPV1) continues to be detected in Afghanistan and Pakistan, although the number of cases and WPV1 detection through environmental surveillance has declined substantially compared with the resurgence observed in 2019 and 2020. As of 8 August 2021, only one wild poliovirus case in Afghanistan and one case in Pakistan have been reported – far fewer than the number of cases registered in the same period last year (34 in Afghanistan and 63 in Pakistan). Despite this, significant and widespread disruptions to immunization and other public health initiatives caused by the COVID-19 pandemic have set back global eradication efforts. Insecurity, vaccine hesitancy and bans on immunization campaigns in large areas of Afghanistan have also continued to play a role in the spread of wild poliovirus.

2. In Afghanistan, the change in the political situation in August 2021 provides potential opportunities for nationwide mass vaccination campaigns, while presenting immediate challenges to the funding of the basic health system in the country. During earlier negotiations with the Taliban authorities in Doha, the polio programme was given an assurance of access to children for vaccination at mosques in all previously inaccessible areas as a first step before house-to-house vaccination began. Discussions are ongoing with the Taliban authorities to safeguard the resumption of critical polio supplementary immunization activities across the country and the programme remains optimistic that the polio vaccination campaigns planned for later this year will go ahead. Essential polio functions including acute flaccid paralysis (AFP) and environmental surveillance and polio vaccination through transit immunization teams are continuing, and contingency planning with neighbouring countries that takes into consideration the impact of displaced populations due to the conflict is supporting enhanced surveillance and opportunistic vaccination.

3. Outbreaks of circulating vaccine-derived poliovirus (cVDPV) have expanded in the Region, as have the number of countries detecting cVDPV. In 2021 to date, 51 cVDPV type 2 cases (cVDVP2) have been reported in the WHO Eastern Mediterranean Region (43 in Afghanistan, eight in Pakistan). In Yemen, three children have been paralysed by cVDPV type 1 (cVDPV1) in 2021 (as of 8 August 2021).

4. The twenty-ninth meeting of the Emergency Committee under the International Health Regulations (IHR) (2005) regarding the international spread of poliovirus, which convened on 4 August 2021, reiterated that the risk of international spread of poliovirus remains a Public Health Emergency of International Concern, and consequently the WHO Temporary Recommendations for infected countries remain in force, including for: Afghanistan and Pakistan (WPV1 and cVDPV2); Egypt, Islamic Republic of Iran, Somalia and Sudan (cVDPV2); and Yemen (cVDPV1).

5. On 10 June 2021, the Global Polio Eradication Initiative (GPEI) launched its new 2022–2026 strategy, entitled *Delivering on a promise*,<sup>1</sup> which builds on recent lessons learned and new approaches, tactics and tools, particularly in the context of COVID-19. Priorities include a focus on filling gaps in operations and community engagement in endemic countries (microplanning, social and programmatic suitability of frontline workers, social mapping and alliance building, and data-driven, high-level accountability), adjusting operational resilience and access in the evolving context in Afghanistan, and intensifying government ownership and oversight in Pakistan. The use of novel oral polio vaccine type 2 (nOPV2) also features prominently.

<sup>1</sup> Delivering on a promise: Polio eradication strategy 2022–2026. Pre-publication version, as of 10 June 2021. Geneva: World Health Organization; 2021 (<https://polioeradication.org/wp-content/uploads/2021/06/polio-eradication-strategy-2022-2026-pre-publication-version-20210609.pdf>).

6. The second meeting of the Regional Subcommittee for Polio Eradication and Outbreaks was convened on 1 July 2021 by Dr Ahmed Al-Mandhari, WHO Regional Director for the Eastern Mediterranean. The meeting brought together ministers of health from Member States across the Region as well as leaders from GPEI partner agencies to ensure more coordinated support for the remaining wild poliovirus-endemic and polio outbreak-affected countries in the Region, and to mobilize the commitment and regional solidarity needed to achieve eradication.

7. Since the beginning of the COVID-19 pandemic, the polio programme has continued to provide its technical expertise, workforce and extensive laboratory and surveillance network to support countries as they respond to COVID-19. A report on the polio programme's contribution to the COVID-19 response was issued by WHO in October 2020, outlining how this engagement demonstrated the programme's value as a strong and multipurpose public health asset skilled at emergency response.

### **Progress toward interruption of wild poliovirus transmission**

8. Only one case each of WPV1 has been reported from Afghanistan and Pakistan as of 8 August 2021, with onset of both cases in January, compared with 97 cases in both countries during the same period in 2020. The proportion of WPV1 positive environmental surveillance samples has declined in Pakistan in 2021 to 11% (62), compared with 58% (318) in 2020, whereas only one WPV1 positive environmental sample (0.3%) has been detected in Afghanistan in 2021 compared with 29 (12%) in 2020.

9. Major disruptions to polio immunization caused by the COVID-19 pandemic, compounded by persistent gaps in campaign quality, insecurity, mobile populations, vaccine hesitancy and refusals, and other operational issues, have prevented health workers from reaching all children everywhere with polio vaccines. In Afghanistan, concern remains around the growing cohort of children who have missed vaccinations as a consequence of the vaccination ban that has been in place since May 2018.

### **Vaccine-derived polioviruses**

10. Circulation of cVDPV2 continued in the Eastern Mediterranean Region in 2021 in different countries, resulting in international spread of the virus within the Region and to neighbouring regions as well. The cVDPV2 transmission detected in 2019 in Pakistan survived through 2020–2021 and resulted in its international spread to Afghanistan in early 2020 and the Islamic Republic of Iran and Tajikistan in late 2020. Also, the cVDPV2 outbreak in Somalia resulted in the spread of the virus to neighbouring Kenya, and the outbreak in Sudan, originally seeded from Chad, spread to Egypt.

11. In Afghanistan, a total of 305 cases of cVDPV2 and 174 positive environmental samples were reported in 2020. A total of 43 cVDPV2 cases and 40 positive environmental samples have been reported in 2021 as of 8 August 2021. The cVDPV2 outbreaks threaten to paralyse hundreds more children living in parts of Afghanistan where vaccination campaigns have been banned for three years, resulting in 3.4 million children being missed in every national or subnational immunization campaign.

12. In Egypt, cVDPV2 has been isolated from 10 environmental samples from sites in six governorates as of 8 August. Genetic sequencing has confirmed that the virus is linked to cVDPV2 from Sudan, belonging to a previous emergence in Chad. Egypt has completed two nationwide response rounds with monovalent type 2 oral polio vaccine (mOPV2).

13. In the Islamic Republic of Iran, cVDPV2 was detected in environmental samples taken from two districts bordering Afghanistan. Genetic sequencing has linked the virus to ongoing transmission in Afghanistan and Pakistan. Three positive isolates were confirmed in 2020 and one positive isolate has been confirmed in 2021, as of 8 August 2021. The Islamic Republic of Iran has completed two targeted response rounds with mOPV2.

14. In Pakistan, a total of 135 cases of cVDPV2 and 135 positive environmental samples were reported in 2020, and eight cases and 32 positive environmental samples have been reported in 2021 as of 8 August. Intensified vaccination activities continue to address co-circulation of WPV1 and cVDPV2.

15. Somalia continues to respond to an outbreak of cVDPV2 that started in 2017. Fourteen cVDPV2 cases were detected in 2020, compared with three cases detected in 2019. The last positive environmental sample was collected on 23 May 2021. No cases have been reported in 2021 as of 8 August, although persistence of cVDPV2 in inaccessible areas is likely, given that strains genetically linked to cVDPV2 isolates in Somalia have been detected in Kenya in 2021. The cVDPV type 3 (cVDPV3) outbreak in Somalia was officially closed on 17 February 2021 after careful review of the available epidemiological and surveillance data. The last cVDPV3 case in Somalia was reported on 7 September 2018.

16. Sudan is responding to an outbreak of cVDPV2. In 2020, 58 cases were confirmed in 15 out of 18 states, indicating widespread transmission. Sudan has implemented two nationwide outbreak response campaigns. No cases have been detected in 2021 as of 8 August. As epidemiological and virological investigations indicate the outbreak is associated with multiple introductions of cVDPV2 strains already circulating in Chad, WHO country offices in Sudan and Chad continue to coordinate on the outbreak response.

17. In Yemen, a total of 35 cases of cVDPV1 have been reported since the outbreak was detected, including one case confirmed from 2019, 31 cases confirmed in 2020 and three cases in 2021, as of 8 August 2021. Several large-scale outbreak response campaigns have been implemented, including one nationwide campaign and two rounds of integrated outreach in the epicentre of the outbreak in Sa'adah governorate. All cases, except for one case detected in Sana'a, have been reported from Sa'adah governorate. Given concurrent outbreaks of polio, measles and diphtheria in the governorate, integrated vaccination activities have been conducted in response to the outbreak.

18. Due to the increased burden of cVDPV outbreaks across the Region in 2020, WHO, along with its implementing partner UNICEF, established a regional Incident Management Support Team to reinforce preparedness and response to polio outbreaks and streamline coordination with GPEI structures and partners during responses.

### **Regional polio risk categories**

19. The regional programme has established polio risk categories across Member States as follows: endemic countries (Afghanistan, Pakistan) responding to the dual challenge of WPV1 and cVDPV2; countries responding to cVDPV due to imported or local emergence (Egypt, Islamic Republic of Iran, Somalia, Sudan, Yemen); and countries in the Region at high risk of outbreaks due to importation of WPV1 or importation or emergence of cVDPV (Djibouti, Iraq, Libya, Syrian Arab Republic). These four at-risk countries are experiencing varying degrees of complex emergency and have access or security constraints that hamper efforts to maintain high population immunity and sensitive surveillance. WHO is providing technical and logistic support to these countries for supplementary immunization and surveillance strengthening.

### **Surveillance**

20. Consequent to lockdown and travel restrictions in 2020, coupled with competing priorities and overwhelmed health and logistics systems, a sustained decline in AFP reporting was seen across the Region in 2020. The shipment of samples to reference laboratories was also hindered significantly, leading to delayed detection of cases and outbreaks.

21. In 2020, the polio programme expanded its environmental surveillance network in Afghanistan and Somalia and initiated work on the establishment of laboratory capacity for environmental surveillance in Iraq and Saudi Arabia. Environmental surveillance in Sudan is being expanded to nine new sites in Gezira, East Darfur, North Darfur, Red Sea, West Darfur, and White Nile states, building on the existing five sites in Khartoum.

22. In Yemen, WHO is exploring options to establish the technology and capacity for direct virus detection in response to the ongoing challenges the programme faces in transporting AFP and environmental samples to polio reference laboratories.

## **Certification of polio eradication**

23. The Eastern Mediterranean Regional Commission for the Certification of Poliomyelitis Eradication met virtually in June 2021 for its thirty-fifth meeting.

24. At its meeting, the Regional Commission expressed concern over the increase in WPV1 transmission in Afghanistan and Pakistan, the increase in cVDPV2 outbreaks affecting Afghanistan, Pakistan, Somalia and Sudan, and the risks associated with mOPV2 use. Concern was also expressed over the cVDPV1 outbreak in Yemen. The Commission further expressed concern regarding the recent international spread of cVDPV2 between countries both inside and outside the Region leading to outbreaks in Egypt and Sudan as well as an event in the Islamic Republic of Iran.

## **Poliovirus containment**

25. The implementation of poliovirus containment activities is on track. All Member States in the Region have complied with Global Action Plan III (GAP III) requirements for the containment or destruction of type 2 poliovirus. GAP III Phase 1 containment activity reports have been submitted or are being finalized by all countries for submission to national certification committees and WHO.

## **Polio transition planning**

26. At their February 2021 meeting, the Regional Steering Committee on Polio Transition endorsed the Regional Polio Transition Workplan for the year 2021 and operationalization of the Integrated Public Health Teams approach in the priority transition countries as an interim solution until essential functions are integrated into national public health systems, with Somalia, Sudan and Yemen prioritized to establish integrated teams. The Committee is chaired by the WHO Regional Director and includes membership from all WHO programmes and departments with the aim of leading the regional transition planning and implementation process, as well as conducting high-level advocacy for domestic resource mobilization and the integration of polio-essential functions into national health systems.

27. The programme continues to support efforts to deliver polio vaccines within a broader package of basic health services and to recognize broader community needs in areas vulnerable to polio transmission. It is working to ensure that polio-essential functions continue while polio infrastructure is being used for the greater public health good.

28. As part of the functions of the GPEI Hub for Afghanistan and Pakistan to strengthen services beyond polio, work continues on strengthening broader immunization services by providing technical support to increase services in under-resourced areas and to build capacity, including through supporting health worker training.

## **The Islamic Advisory Group for Polio Eradication**

29. The Islamic Advisory Group for Polio Eradication (IAG) held its seventh annual meeting on 7 December 2020, acknowledging the unprecedented challenges to polio eradication posed by disruptions to health care delivery due to the COVID-19 pandemic and reiterating its commitment to polio eradication. The IAG has an expanded mandate to support a broad public health agenda.

30. The IAG organized a training-of-trainers course on 22–28 December 2020 for medical students at Mogadishu University, Somalia, to build capacity on public health priorities from a religious perspective.

## **Equity and gender**

31. Mainstreaming gender equality is a priority for the polio programme. This includes ongoing efforts to systematically incorporate a gender perspective into programme design, delivery, and monitoring and evaluation, and implementing gender-balanced staffing to ensure that women are empowered as decision-makers at all levels of the programme. The Regional Office participates in the Gender Data Working Group at WHO headquarters and in efforts to collect and analyse sex-disaggregated data on immunization coverage and AFP surveillance, and provides gender expertise to further strengthen the reach of vaccination services.

32. The recent recommendations of the Pakistan Technical Advisory Group, which call for the integration of women into all levels of the polio programme, the assurance of a safe environment for women and the introduction of gender awareness and training for all programme staff at all levels, are indicative of the growing recognition of the importance of gender in reaching eradication where poliovirus is endemic.

### **Regional priorities for polio eradication**

33. The newly established Regional Subcommittee for Polio Eradication and Outbreaks provides a platform to enhance regional commitment to eradication by forging collective and coordinated public health actions and rallying political support and domestic funding. The Regional Subcommittee aims to bolster efforts across countries to close ongoing cVDPV outbreaks, raise immunity levels and enhance surveillance activities across the Region.

34. Collective action is needed by all stakeholders to capitalize on the opportunity to stop WPV1 transmission in the Region, given the unprecedented decline in WPV1 transmission in the two remaining WPV1-endemic countries, Afghanistan and Pakistan.

35. National authorities and all GPEI partners, donors and regional stakeholders should ensure the implementation of mass polio vaccination campaigns that reach all children across Afghanistan and children displaced from Afghanistan, as well as the continuation of poliovirus surveillance and other essential programme functions, taking into consideration the safety and security of all staff and frontline workers.

36. Advocacy for unimpeded and sustainable access across the Region is required to enable health workers to reach every child with polio vaccine and other essential health services.

37. Accelerated preparation for the use of novel oral polio vaccine type 2 (nOPV2) is needed along with national ownership of efforts to meet the criteria for nOPV2 use under WHO's Emergency Use Listing.

38. National commitment is needed to polio transition activities that will ensure the continuation of polio-essential functions through further integration of polio eradication strategies into national health systems and public health programmes.

### **Financing polio eradication**

39. Significant GPEI funding shortages and highly-earmarked financing threaten to affect the smooth implementation of planned activities in 2021 across all endemic and high-risk countries. The recent developments in Afghanistan may jeopardize donor funding for polio eradication and for essential health services, including immunization. The GPEI and regional polio eradication programme continue to advocate strongly with donors and governments for more flexible funding and fully funded multi-year budgets. The expansion of cVDPV2 outbreaks across the WHO African and Eastern Mediterranean regions has further depleted GPEI financial resources, requiring higher national commitments to domestic funding.

### **The way forward**

40. Member States are encouraged to:

- support the efforts by Afghanistan and Pakistan to stop poliovirus transmission and strengthen regional collaboration to halt transmission as soon as possible;
- endorse the new GPEI strategy for 2022–2026, which was launched on 10 June 2021 following an extensive GPEI strategy review initiated in 2020;
- advocate for and facilitate access to currently unreachable children in parts of Afghanistan, Somalia and Yemen, and maintain the neutrality of health care and the commitment to reach all children everywhere with polio vaccine;
- support efforts in Egypt, the Islamic Republic of Iran, Somalia, Sudan and Yemen to urgently stop cVDPV transmission and prevent further outbreaks;
- accelerate national efforts to meet the criteria for nOPV2 use under WHO's Emergency Use Listing;

- support efforts to rapidly scale up polio eradication operations to restore and enhance poliovirus surveillance, increase population immunity and deliver integrated services as supplementary vaccination activities resume following the pause due to the COVID-19 pandemic;
- mobilize domestic resources to support polio eradication activities nationally and regionally;
- honour their pledges and promises and encourage other donors and partners to do the same, particularly ensuring international funding for the programme in Afghanistan;
- complete the implementation of phases I and II of GAP III for the containment of polioviruses;
- take all necessary measures to implement the Temporary Recommendations of the Emergency Committee under the IHR (2005) regarding the international spread of poliovirus;
- maintain a high level of immunization coverage through essential and supplementary immunization services, expand environmental surveillance as planned and ensure the highest possible quality of AFP surveillance, particularly among high-risk groups, including refugees, internally displaced persons, immigrants and mobile populations; and
- ensure that polio outbreak preparedness and response plans are up to date and test them regularly through polio outbreak simulation exercises.