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Sustaining momentum to end polio



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2018-2023

Sustaining momentum to end polio



DEDICATION

THIS REPORT IS DEDICATED TO THE HEALTH WORKERS AND THE SECURITY PERSONNEL PROTECTING THEM WHO HAVE SACRIFICED THEIR LIVES TO ENSURE A POLIO-FREE WORLD

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FOREWORD

At every turn in its course during the last five years, the WHO Eastern Mediterranean Region's Polio Eradication Programme has witnessed fleeting but defining moments, where purpose, partnerships and action have come together, in locations ranging from the doorsteps of family homes to polio laboratories. Journeys on long-winding roads have led to the tables where decisions are made. This report on the work of the polio programme presents progress made during all these moments in the last five years which, together, form the final blocks to build a polio-free world. It provides an overview of the Region's efforts in the last five years to interrupt the transmission of wild and vaccine-derived polioviruses wherever they have been detected.

At country level, led by governments and supported by partners, polio teams have found extraordinary ways to cross barriers and fulfil their duties. This was best demonstrated during the COVID-19 pandemic and other dire emergencies such as floods and droughts, when our teams stood by the countries they serve. They pivoted to ensure they helped communities to prevent, detect and respond to diseases. In some instances, they did this even in the face of rapidly changing political and security situations.

Policy-makers played their part in discussing solutions and galvanizing support on every occasion possible. As never before, ministers of health joined hands and resolved to defeat a formidable foe. Our partners in the Global Polio Eradication Initiative (GPEI) have been a force multiplier in our joint efforts to end polio. This advocacy and support have successfully carved out clear pathways towards protecting children in the Region from polio and other vaccine-preventable diseases.

As time has progressed, we have sharpened our skills and tools. With an extensive network for surveillance to track polioviruses, a constantly reinvigorated focus on reaching underimmunized and zero-dose children with vaccines that are best suited for the context in which they are to be used, we have made incredible progress in the last five years.

In the two last bastions where the wild poliovirus type 1 (WPV1) persists – Afghanistan and Pakistan – both the geographical footprint and number of genetic clusters of WPV1 have been reduced significantly, which has catapulted us closer to a world free of WPV1.

Working in tandem with the GPEI, countries facing poliovirus outbreaks have responded vigorously and stopped the outbreaks and ensured that any remaining or newly emerged chain of poliovirus transmission is interrupted. As the report outlines, the polio programmes in countries of the Region have been active in preparing for importations of poliovirus, to ensure they do not spiral into outbreaks.

At the heart of all we do are children, of diverse backgrounds and demographics, living in 22 countries and territories across the Region, many in communities facing armed conflict, political turmoil and prolonged humanitarian crises. Our teams are continuously building on our accomplishments and filling in gaps to end the spread of polio, the only disease that has remained a Public Health Emergency of International Concern since 2014. Through this work, the programme has strengthened health systems for countries – in line with the Eastern Mediterranean Region's *Vision 2023* of health for all by all – to keep our promise of protecting every last child from polio.



Dr Ahmed Al-MandhariRegional Director
for the Eastern Mediterranean



Dr Hamid JafariDirector Polio Eradication for the Eastern Mediterranean



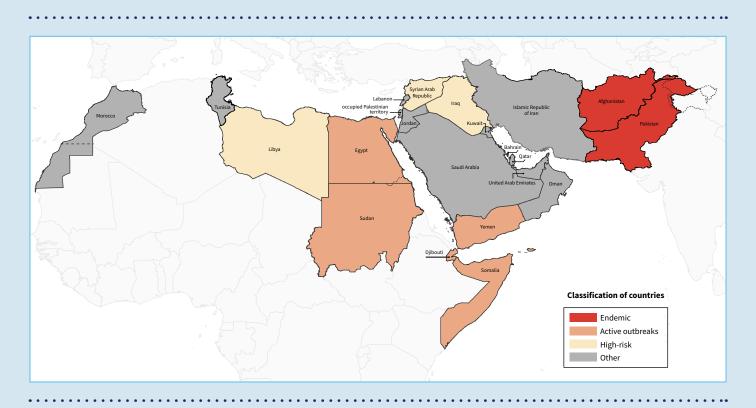
INTRODUCTION

The Eastern Mediterranean Region's polio eradication programme is pursuing two goals outlined in the Global Polio Eradication Initiative (GPEI) strategy 2022–2026 to end polio: to permanently interrupt wild poliovirus transmission in countries that continue to be polio endemic; and to stop circulating vaccine-derived poliovirus type 2 (cVDPV2) transmission in affected countries (1). During the last five years, the regional polio eradication programme has been working with much urgency alongside governments, regional health leadership, communities, donors and other partners to end polio within the shortest possible time frame.

The programme's work is also aligned with WHO's Thirteenth General Programme of Work (GPW 13) and with the WHO Eastern Mediterranean Region's *Vision 2023*, introduced in October 2018, which aims to achieve health for all by all. Polio eradication efforts are a major regional priority and are managed and executed as befits a public health emergency with the full support of the ministerial Regional Subcommittee for Polio Eradication and Outbreaks that Member States established under a Regional Committee resolution.

This report provides an overview of progress toward polio eradication in the last five years, in addition to presenting examples of how, through its flexibility and formidable strength, the polio programme has repeatedly proved its value. The status of poliovirus in the Region is shown in Fig.1.

Fig. 1. Status of poliovirus, Eastern Mediterranean Region, 2023



Regional ownership of the risks and challenges and the solidarity of regional leaders to end polio have been pivotal to enhancing national political commitments and sustaining programme delivery despite significant challenges of insecurity, political turmoil and complex emergencies. The WHO Regional Director has been instrumental in garnering national and regional commitments and the confidence of donors and has been the main driving force that has propelled the programme forward, working closely with Member States, his counterparts in the United Nations Children's Fund (UNICEF) regional offices and GPEI leadership in the Polio Oversight Board.

In the last two refuges of the WPV1 in the world – Afghanistan and Pakistan – the virus has been cornered to the east region of Afghanistan and a handful of districts in the southern part of Khyber Pakhtunkhwa province in Pakistan. Both countries have overcome challenges such as political transitions and persistent insecurity to diligently deliver strategies to end poliovirus transmission. Programmatic pivots, innovative interventions, political commitment and a razor-sharp focus have led to genetic clusters of WPV1 being slashed to the lowest number they have ever been: one in each endemic country.

However, as long as even just one trace of poliovirus remains anywhere in the world, it will be a threat to children everywhere.

The polio programme has continued to work to break chains of transmission of vaccine-derived polioviruses, whether they have been detected in children or in wastewater samples. From 2018 to 2023, Afghanistan, Egypt, Pakistan, the Syrian Arab Republic and Sudan closed cVDPV2 outbreaks, while the Islamic Republic of Iran and Jordan closed cVDPV2 events. Somalia stopped a circulating vaccine-derived poliovirus type 3 (cVDPV3) outbreak in 2021. A circulating vaccine-derived poliovirus type 1 (cVDPV1) outbreak in Yemen confirmed in 2020 was interrupted in 2021.

The regional programme assisted countries at risk of cVDPV2 to prepare for the use of the novel oral polio vaccine type 2 (nOPV2), a new vaccine deployed in 2021 under the WHO Emergency Use Listing protocol requiring extensive readiness criteria for vaccine use. Egypt was the first country in the Region to deploy nOPV2, and Djibouti and Somalia have also used it.

As part of the strategy to focus on the main poliovirus hotspots, the GPEI has identified seven consequential geographies. These are subnational areas prone to repeated polio outbreaks which are difficult to control and are associated with the international spread of polioviruses. The Region hosts four of the seven consequential geographies, located within Afghanistan, Pakistan, Somalia and Yemen. The regional polio programme has invested significant technical, financial and human resources in these poliovirus hotspots.

Moreover, the regional programme plays a central role in coordinating cross-border activities to manage the risks of the international spread of polio and to assist countries in joining forces along shared borders, reaching moving and displaced populations and offering integrated, essential health services alongside polio vaccines to communities in need.

In addition to supporting COVID-19 surveillance during the pandemic, WHO has continued one of its core tasks of assisting Members States in maintaining high quality and sensitive surveillance for poliovirus. An extensive network of health facilities and communities is fine-tuned to conduct surveillance for acute flaccid paralysis (AFP), a key symptom of polio, in children aged under 15. To supplement this, environmental surveillance has been expanded across the Region and is currently active in 16 of 22 countries and territories, with plans to expand to all in 2024. Health teams are collecting wastewater for sampling from over 500 permanent and temporary environmental surveillance sites. The Region supports a high functioning network of 12 WHO-accredited poliovirus laboratories that provide crucial programme information to track polioviruses following testing of samples from children with AFP and wastewater from environmental surveillance sites. To minimize the risks of any future transmission of polioviruses escaping from laboratories or vaccine manufacturing facilities, the programme is supporting appropriate containment of polioviruses in facilities across the Region.

At the heart of all this work has been the drive to create a polio-free world for future generations and avert the human and economic costs of having polioviruses resurface in the Region. Across the Region, resilience and flexibility have been resounding themes in the polio programme. Whenever the opportunity arose, over the last five years, the programme has repurposed its personnel and systems to support other pressing needs – supporting

emergency responses to the COVID-19 pandemic, earthquakes in Afghanistan and the Syrian Arab Republic, floods in Pakistan and drought in Somalia. Amid conflict in countries such as Somalia, Sudan and Yemen, polio teams have been creative in finding ways to ensure the mission goes on, using measured approaches.

Well-designed advocacy has often translated into increased access to children in areas that were previously out of the programme's reach. Despite what seemed like insurmountable risks, the polio programme has attained significant milestones with the support of the Member States, GPEI partners, donors, health workers, communities, local leaders and administrations and a wide range of actors from the health sector among other partners.

In order to ensure the robust polio assets built are sustained for the long term, and following a resolution by the World Heath Assembly in 2018, WHO established a programme for polio transition. This programme focuses on countries that have already eradicated polio but needed additional support to fully transition polio assets to the national health system; in the Region, Iraq, Libya, Sudan, Somalia and the Syrian Arab Republic were designated as polio transition countries. All six countries are fragile and conflict-affected, requiring technical and financial support to sustain polio essential functions. In 2019, the Regional Director established a Regional Committee on Polio Transition, that he chairs.

The next steps for the programme will include interrupting polioviruses in endemic and non-endemic countries and capitalizing on political will, strong leadership and partnerships, in addition to leveraging the extensive human workforce trained in diverse skills related to immunization, disease elimination, emergency response and systems built over the years to continue to strengthen national public health systems.





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In our Region, we have made significant progress in both containing the spread of wild poliovirus and closing outbreaks of vaccine variant polio. Afghanistan and Pakistan have restricted the virus to the smallest geographical footprint in history and are now doubling up efforts to fully interrupt the remaining transmission. The engines fuelling this progress are manifold, but the two most powerful are improved immunity and better surveillance. We are reaching and vaccinating more children, more often, and we are using the most sensitive and robust surveillance measures in history to ensure that if the virus is there, we are not missing it.



HE Dr Hanan Mohammad Al-KuwariMinister of Public Health of Qatar and Co-Chair of the Regional Subcommittee

for Polio Eradication and Outbreaks1

Wiping out a disease from the world requires the commitment and collaboration of a wide range of partners. As the longest-running Public Health Emergency of International Concern, the polio programme enjoys the support of a range of partners, donors and stakeholders at all levels of the programme who trust WHO and other partners from the GPEI to deliver on the promise of a polio-free world.

At the global level, during meetings of the Executive Board and at the special polio session at the World Health Assembly, global health experts have acknowledged the progress towards eradication and outlined the importance of maintaining a razor-sharp focus on closing immunity gaps and ensuring that once a polio-free world is attained, it is sustained through country-specific solutions for polio transition. In the Region, the Regional Director has continued efforts to accelerate eradication activities, including the mobilization of necessary financial and technical support, and to convene regional health leaders.

Driving regional solidarity and collective action

In 2020, recognizing the need for a specialized subcommittee to engage in coordinated action on polio eradication in the Region, WHO formed the Regional Subcommittee for Polio Eradication and Outbreaks by passing resolution EM/RC67/R4 at the 67th session of the Regional Committee for the Eastern Mediterranean (2). Convened by the Regional Director and led by two co-chairs from the Region, the Subcommittee brings together Member States, GPEI partners and donors to drive regionally led solutions that complement the efforts being made by local authorities and at ground level by health workers and communities. The focus areas of the Subcommittee are shown in Fig. 2.

Fig. 2. Areas of focus of the Regional Subcommittee for Polio Eradication and Outbreaks



Engaging in coordinated action



Supporting regional polio eradication efforts including fostering collective public health action



Areas of focus of the Regional Subcommittee for Polio Eradication and Outbreaks



Strengthening efforts to transition polio assets and infrastructure



Advocating for the mobilization of national and international funding to sustain polio eradication efforts

¹ Remarks delivered during the polio session at the 76th World Health Assembly (2023) in Geneva, Switzerland.

The Regional Subcommittee has convened nine times since it was established. As part of its active advocacy to drive urgent action and in efforts to highlight ongoing polio-related emergencies, the Subcommittee has issued six statements, each focusing on one or two of the following countries: Afghanistan, Pakistan, Somalia and Yemen. The two co-chairs from, United Arab Emirates and Qatar, have played key roles in supporting programmatic work and advocacy to reach underimmunized or zero-dose children in the Region, including through their efforts in support of the Regional Subcommittee for Polio Eradication and Outbreaks. Since 2014, the United Arab Emirates has offered key support to polio eradication efforts in Pakistan through the UAE-Pakistan Assistance Program (3).

High-level commitment translated into country-level support

Since its inception, the Subcommittee has created a momentum that has drawn the interest and commitment of regional governments and regional and global partners – all of whom have played critical roles in spearheading efforts to end polio in countries endemic for wild poliovirus and those affected by outbreaks of vaccine-derived poliovirus. The focused engagement of presidents and other top leadership of Rotary International has been pivotal to sustaining political and public support and financial resources for the programme across the Region. Rotary members across Pakistan are actively engaged in the country's polio eradication effort, mobilizing communities and leadership at all levels, organizing health camps and promoting broader public health efforts. Rotary is the civil society arm of polio eradication around the world, and nowhere is this more evident than in Pakistan.



January 2019

Dr Tedros Adhanom Ghebreyesus, WHO Director-General and Dr Ahmed Al-Mandhari, Regional Director, visited Afghanistan and acknowledged progress made towards ending polio.



February 2020

UN Secretary-General, António Guterres, participated in a polio vaccination campaign in Lahore.



2021

September 2021

Dr Tedros Adhanom Ghebreyesus, WHO Director-General and Dr Ahmed Al-Mandhari, Regional Director visited Afghanistan and encouraged the new authorities to continue intensifying efforts to interrupt poliovirus transmission.



August 2022

Rotary International President 2022–2023 Jennifer Jones visited Pakistan and participated in polio vaccination campaigns in the country. Meeting with leaders, communities, female health workers and local Rotary members, President Jones thanked all stakeholders in the country for their tremendous efforts in bringing the country to the threshold of being polio-free.



September 2023

Chair of the Polio Oversight Board Dr Chris Elias met with the Prime Minister of the Federal Government of Somalia, HE Mr Hamza Abdi Barre, and senior representatives from WHO, the Bill and Melinda Gates Foundation (BMGF) and UN partners to review progress, assess barriers and determine how to advance towards a polio-free Somalia.



Between 2021–2023, the Chair of the Polio Oversight Board and Regional Directors from the WHO Eastern Mediterranean Region and UNICEF South Asia region conducted six high-level visits to Pakistan.



Governments' commitment to ending polio can withstand political transition

Member States have shown that their pledges to end polio are not dependent on the political constellation in which they were made. Extraordinarily high commitment from the Government of Pakistan, for example, has sustained gains made and the momentum to interrupt poliovirus transmission in the country, despite multiple political transitions and complexities.

In Afghanistan, the programme's longstanding coordination with the Taliban leadership for polio vaccination resulted in the continuation of polio eradication activities after the change in government in 2021. The programme also gained access to 3.5 million previously inaccessible children thanks to advocacy and negotiations at all levels following the transition in leadership. The relentless support provided by the polio teams to Afghanistan's health care system throughout the transition helped to earn the trust of leadership and communities across the country.

In Somalia, Prime Minister HE Hamza Abdi Barre established the Somalia Immunization and Polio Eradication Taskforce in 2023 to address the longest-running outbreak of circulating vaccine-derived poliovirus and strengthen immunization efforts across the country.

The accomplishments of the polio programme have been sustained thanks to the partnership of several donors and partners, and the GPEI partners: Rotary International, Bill & Melinda Gates Foundation (BMGF), the United States Centers for Disease Control and Prevention (CDC), Gavi, the Vaccine Alliance, WHO and UNICEF.



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I remain cautiously optimistic about the goal of interrupting transmission of poliovirus in Pakistan. Overcoming formidable challenges will require solidarity and rigorous collective action, reinforced by political, administrative and security leadership. Under our regional vision of health for all by all, WHO will continue supporting Pakistan's polio programme to gift our future generations a polio-free world.

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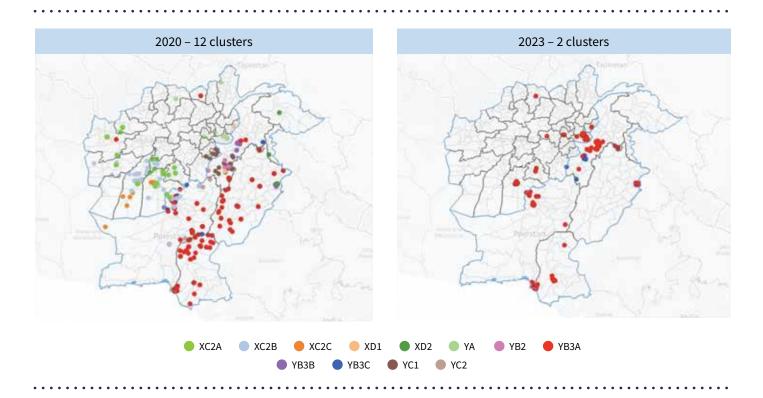


Dr Ahmed Al-Mandhari

WHO Regional Director for the Eastern Mediterranean²

Wild poliovirus type 1 (WPV1), the last remaining type, remains endemic in only a handful of districts of the world, restricted to the east region of Afghanistan and the southern districts of Khyber Pakhtunkhwa province in Pakistan (see Fig. 3). The genetic clusters of WPV1 have also reduced from 12 in 2020 to just two, one each in Afghanistan and Pakistan, a sign of the hopefully final exit of wild poliovirus from the world.

Fig. 3. Reduction of genetic clusters of WPV1, 2020-2023



The epidemiological progress over the past five years is the result of programmatic pivots, innovative interventions, political commitment and a laser-sharp focus on vaccinating every child and eliminating polio. Programme implementation has been coordinated by the cross-partnership emergency operation centres led by senior government officials.

Comprehensive programme reviews, including an internal WHO functional review of the polio programme in the Regional Office and the two endemic countries conducted in 2019, led to transformative changes that improved management, national ownership and expertise at all levels.

At the regional level, the GPEI hub was established in 2019. Hosted by WHO in Amman, Jordan, the hub brings together expertise from BMGF, CDC, UNICEF and WHO, and has continued to provide coordinated strategic guidance and technical surge support to Afghanistan and Pakistan. Since late 2019, the GPEI hub has also been

² Remarks delivered during the Polio Oversight Board Chair and GPEI leadership visit to Pakistan, July 2023.

coordinating cross-border activities between the two endemic countries, supporting strategic planning activities and strengthening coordination across the GPEI and other relevant global bodies.

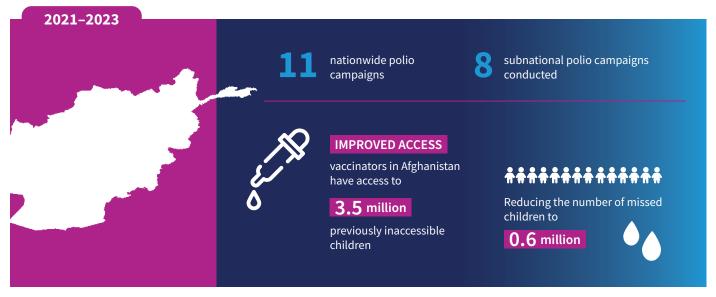
Intensified efforts yield promising results

The five-year period discussed in this report has been marked by significant achievements for the programme. From negotiations with the Taliban authorities in August 2021 that opened up access to 3.5 million children who had previously been inaccessible for more than three years (see Fig.4), to 15 months without a case of WPV1 in Pakistan until April 2022 – the longest period without a human case for the country and a testament to the laser-focused efforts to raise immunity levels to polio in children across the country. With persistent low levels of polio transmission in the endemic countries, cross-border coordination efforts were further streamlined, particularly along the international transit points. At the same time, the two programmes leveraged opportunities of partnership with the expanded programme on immunization (EPI) and other humanitarian partners to reach even more children and build overall immunity levels.

Fig. 4. Campaigns conducted in Afghanistan, November 2021-December 2023

SIGNIFICANT GAINS SINCE RESUMPTION OF POLIO CAMPAIGNS IN AFGHANISTAN

A ROBUST VACCINATION SCHEDULE

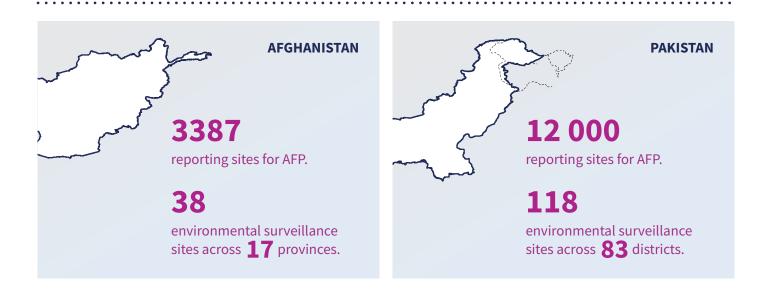


One such example of the partnership with EPI is the Nomad Vaccination Initiative in Pakistan (4). Through this intervention, 80 agile, two-member teams rove across 22 districts of Balochistan, Punjab and southern Khyber Pakhtunkhwa on motorcycles to vaccinate children from highly mobile nomadic communities against polio and other vaccine-preventable diseases.

Technical reviews help in streamlining efforts

The epidemiological progress in both countries has been recognized by members of the Technical Advisory Group for Afghanistan and Pakistan. In 2022, due to the changing epidemiological situation, the Group proposed major strategic shifts and prioritization for the endemic countries, categorizing areas for priority actions according to the risks they faced. The areas were categorized as endemic, outbreak response, at-risk and immunity maintenance zones, allowing the programmes to tailor their approaches (5). To gauge the sensitivity of the surveillance systems the Global and Regional Certification Commissions initiated six-monthly deep-dive reviews of surveillance in the two countries and expressed their confidence in the highly sensitive surveillance systems in both (see Fig. 5).

Fig. 5. Footprint of polio surveillance networks in Afghanistan and Pakistan

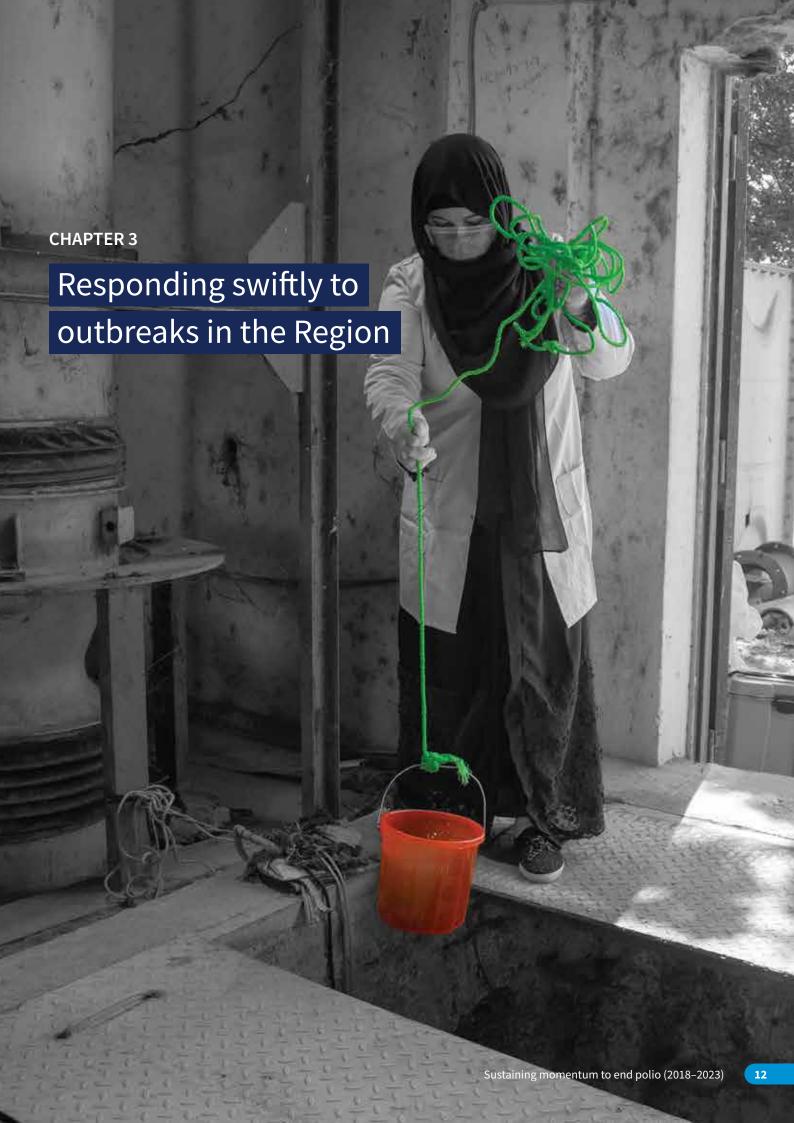


At the core of this progress lies the dedication and effort of polio workers – vaccinators, social mobilizers and surveillance officers – who have gone above and beyond to reach children with polio drops, build trust with parents and communities and actively seek out the presence of the virus by collecting stool and wastewater samples.

As part of efforts to listen to polio workers and capitalize on their experience and knowledge to develop solutions to end polio, Pakistan's polio programme's National Gender Group, comprising representatives from the Government, WHO, UNICEF, BMGF and CDC, launched The Listening Initiative to systematically listen to female frontline workers and co-develop solutions for a polio-free Pakistan (6).

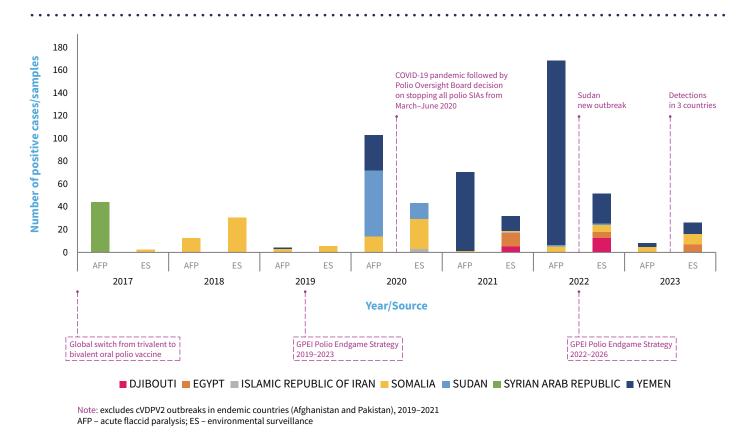
Tragically, some polio workers have also lost their lives while carrying out life-saving work. The programme is forever indebted to their sacrifices to create a polio-free world for future generations. In recognition of their sacrifices, the families of eight frontline workers who were killed in attacks in northern Afghanistan received a special award by Dr Tedros Adhanom Ghebreyesus, WHO Director-General, during the opening session of the 75th World Health Assembly in 2022.





In the last five years, at least half of the 22 countries and territories of the Region have faced some form of conflict or violence, in addition to natural disasters that have sparked additional health emergencies (7). Despite these emergencies, the polio programme continued to become more agile at detecting outbreaks through intensified surveillance (Fig. 6), prompting a chain of urgent responses that stopped any further poliovirus transmission among children.

Fig. 6. Timeline of VDPV isolates from AFP and wastewater in the Eastern Mediterranean Region, 2017–2023



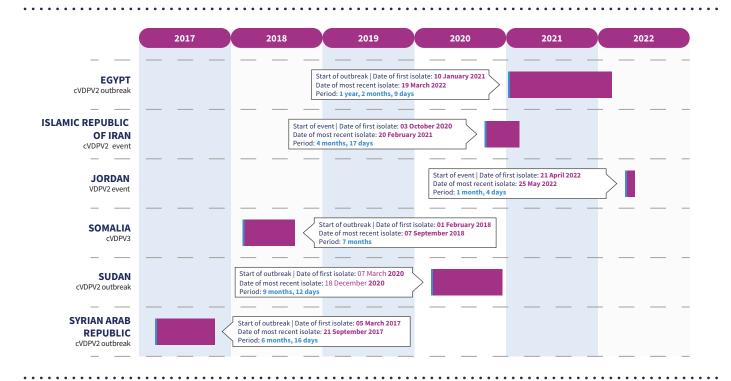
Continuous efforts to optimize coordinated support to outbreak-affected countries

To better prepare for, respond to and stop vaccine-derived poliovirus outbreaks and events across the Region, the regional Incident Management Support Team for polio outbreaks and events was established in 2020. This is a well-oiled coordination mechanism, jointly run by WHO and UNICEF with inputs from other GPEI partners. The Team provides coordinated technical assistance and resources to countries facing outbreaks. It also works with the GPEI's Polio Outbreak Response and Preparedness Group to deploy urgent technical support, such as organizing adequate vaccine supply for immunization campaigns and mobilizing funds for rapid responses in countries facing outbreaks.

Closure of outbreaks and events

Robust responses and evidence-based strategies have led to the closure of several outbreaks (Fig. 7). This included deploying special strategies such as delivery of vaccines to children in camps for internally displaced persons in the Syrian Arab Republic to the use of next-generation novel oral polio vaccine type 2 in Djibouti, Egypt and Somalia. Countries such as Djibouti, Egypt and Sudan have mobilized domestic funding to respond to the outbreaks.

Fig. 7. Closed poliovirus outbreaks and events, 2018–2023



Focused strategies for consequential geographies in Somalia and Yemen

In 2020, Yemen detected an outbreak of circulating vaccine-derived poliovirus type 1 (cVDPV1) to which both the southern and northern governorates responded with adequate mass vaccination campaigns. No new cVDPV1 cases have been reported since 2021. A large outbreak of cVDPV2 was confirmed in Yemen in late 2021 and has paralysed 237 children, more than 80% of these in the northern governorates. While outbreak response activities in the southern governorates appear to have stopped the transmission in the south, the outbreak continues to smoulder in the north, where the authorities have not yet permitted implementation of an appropriate outbreak vaccination response. Multichannel advocacy efforts continue to be conducted to engage the authorities in the north. Authorization to implement mass vaccination campaigns that can achieve high coverage will also be essential to stop the large ongoing outbreaks of measles and diphtheria in the north of the country.

Using an emergency action plan for polio eradication in Yemen, the programme is building on its resilience while continuing to work with external laboratories and multiple partners to ensure stool and environmental samples are transported out of the country and tested for poliovirus as soon as possible. An independent external surveillance review conducted in September 2023 concluded that Yemen has a functioning surveillance system that can detect poliovirus outbreaks, even though it noted some areas for improvement. In the absence of outreach and social mobilization in the northern governorates, community engagement around vaccination is still suboptimal. The highly resolute surveillance and immunization staff diligently conduct community awareness sessions and offer routine immunization outreach to 30 households for every confirmed polio case, any case likely to be confirmed as polio and any cluster of AFP cases.

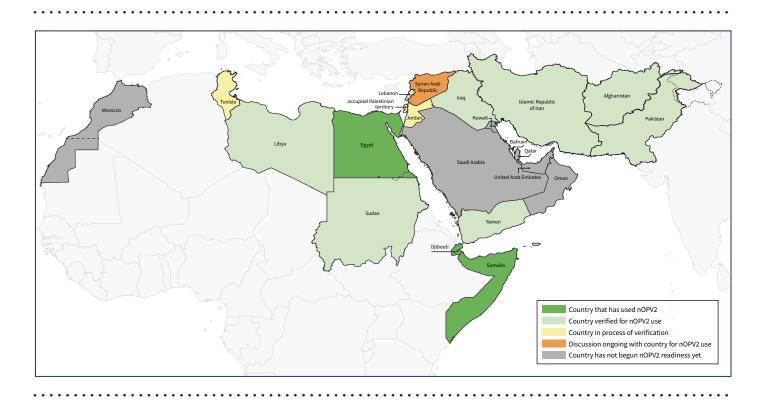
In 2023, the polio programme in Somalia implemented the second and more robust phase of an emergency action plan to end the cVDPV2 outbreak, the longest of its kind. This plan focuses on enhancing campaign quality across the country, using strategies that include reaching children who chronically miss out on polio vaccinations, such as those in camps for the internally displaced and in inaccessible areas that are not under government control. The plan is being implemented under the leadership of the Government of Somalia with strong and well-coordinated support from all GPEI partners. The national programme has also focused on maintaining robust levels of coordination with neighbouring Ethiopia and Kenya to prevent polioviruses spreading across borders.

Tapping into innovations to end polio: Using nOPV2

To address the surge in number of cVDPV2 cases and increasing threat of related outbreaks, WHO issued an Emergency Use Listing Procedure for nOPV2 use in November 2020. This followed months of rigorous analysis that showed the novel vaccine is safe and provides the same level of protection against polio as the Sabin monovalent oral polio vaccine type 2 (mOPV2) and with less chance of genetic reversion. This oral vaccine is known to be more genetically stable than its predecessor, the Sabin type 2 oral polio vaccine.

In the Region, preparedness for nOPV2 use was prioritized in countries at high risk of international spread of cVDPV2 and by the end of 2023, 11 countries were verified for use of nOPV2 (Fig. 8). In a significant milestone, in December 2021, Egypt was the first country in the Region to use nOPV2 under WHO's Emergency Use Listing Procedure for a polio outbreak response campaign. In 2022, Djibouti followed suit as the second country in the Region to offer nOPV2 during polio outbreak response campaigns and between May and June 2023, Somalia conducted a campaign to provide nOPV2 to children across the country.

Fig. 8. Readiness for use of nOPV2 in the Eastern Mediterranean Region, 2023



The Regional Director for the Eastern Mediterranean has lent strong support to countries facing poliovirus outbreaks.

In 2022, the Regional Director directed that all WHO polio operations to support outbreak-affected countries be implemented using procedures reserved for graded emergencies.

This ensures that outbreaks are handled with the urgency and priority they require.



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The Eastern Mediterranean Region is the last WHO region with endemic poliovirus, in Afghanistan and Pakistan. Yet 20 out of the 22 countries and territories in the Region have achieved the required standards for polio certification. This is a great achievement and demonstrates the commitment of Member States.



Remarks by Dr Yagob Al Mazrou Chair, Regional Certification Commission³

Polio eradication efforts are at a defining crossroads, where the quality and scale of surveillance for polioviruses, the timeliness of their detection and the subsequent actions taken are vital for creating a polio-free world.

Extensive surveillance network detecting polioviruses

Since its establishment, the regional polio programme has supported countries to create and strengthen sensitive systems to search for and detect polioviruses. These primarily comprise gold standard surveillance for AFP, the most common symptom of polio. All countries in the Region conduct AFP surveillance using a reporting network that includes health facilities, key informants and communities.

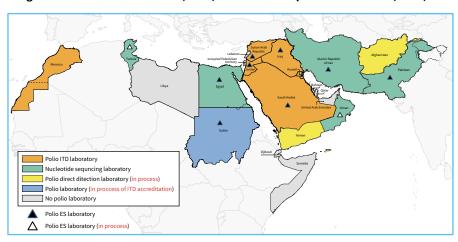
To supplement this, environmental surveillance, introduced in 2001 in the Region, casts a wide net as a powerful tool to detect polioviruses in the absence of children with paralysis. The Eastern Mediterranean Region has an extensive footprint in environmental surveillance – 16 of 22 countries and territories currently maintain a web of over 500 permanent and temporary environmental sites. The programme is working closely with the other countries in the Region to initiate environmental surveillance. Together, the investigation of AFP cases and environmental surveillance sites provide critical information on the current and potential spread of polioviruses across countries and internationally, while providing confidence in the successful elimination of the virus in previously infected countries.

Fig. 9 provides an overview of the poliovirus laboratories in the Eastern Mediterranean Region in 2023.

Fig. 9. Poliovirus laboratories in the Eastern Mediterranean Region, 2023

12 polio laboratories:

4 regional reference laboratories (RRLs) and 8 national polio laboratories (NPLs)



Laborator	Facilities			
Laboratory	V.I.	ITD	Sequ.	ES
RPL EGYPT	✓	✓	✓	\
NPL ISLAMIC REPUBLIC OF IRAN	LIC / / /		✓	>
NPL IRAQ	✓	✓		\
NPL JORDAN	✓	✓		/
NPL KUWAIT	✓	✓		\
NPL MOROCCO	✓	✓		
NPL OMAN	✓	✓	✓	\
RPL PAKISTAN	✓	✓	✓	✓
NPL SAUDI ARABIA	✓	✓	✓	/
NPL SUDAN	✓	✓		\
NPL SYRIAN ARAB REPUBLIC	✓	✓	·	>
RRL TUNISIA	✓	✓	✓	✓

5 sequencing laboratories

9 environment surveillance laboratories

2 direct detection laboratories (currently being established)

V.I.: Virus isolation ITD: Intratypic differentiation

Sequ.: Sequencing **E.S.:** Environmental surveillance ✓ Planned and in proccess

✓ Functional and accredited

Trained; accreditation pending

³ Remarks delivered to the Regional Subcommittee for Polio Eradication and Outbreaks on 11 October 2022.

In 2019, the regional polio programme kicked off a project to conduct surveillance for immunocompromised vaccine-derived poliovirus (iVDPV) among children with primary immune deficiencies. Considering the risk that chronic excretion of poliovirus by such patients poses, WHO has been supporting countries in the Region to implement and integrate iVDPV surveillance among children with these conditions into a larger poliovirus surveillance system. So far, Egypt, the Islamic Republic of Iran and Tunisia have surveillance systems for iVDPV.

Maintaining swift turnaround time for testing

The polio eradication programme has relentlessly enhanced laboratory capacity and streamlined processes to test more samples within the shortest timeframes possible. In Yemen, for instance, sample shipment has been exceedingly challenging; nevertheless, the number of days from sample collection to obtaining test results has been reduced from 229 in the second quarter of 2022 to 78 in the second quarter of 2023.

Even amid the ongoing conflict in Sudan, following occupation of the polio national laboratory by combatants in April 2023, the polio programme took urgent but measured steps to intricately carve a route to transport samples from both children with AFP and the environment to the border for further testing in Egypt.

Developing the capacity of polio laboratories

During the COVID-19 pandemic, because of the repurposing of polio laboratories to support COVID-19 testing and restrictions on movement within countries, the polio programme suffered delays in testing samples, which further affected some countries. Subsequently, the polio programme provided surge support to laboratories with personnel and especially pre-positioned supplies from WHO's logistics hub in Dubai. This support has been instrumental in enabling laboratories to cope with and manage the backlog of samples from children with AFP and the environment while allowing continued expansion of AFP and environmental surveillance with a progressively increasing testing workload. The pre-positioned laboratory supplies in the Dubai hub served as a lifeline for many laboratories of the Global Poliovirus Laboratory Network outside the Eastern Mediterranean Region.

Despite the challenges of the COVID-19 pandemic, armed conflicts and emergencies in the Region and an increasing specimen testing workload, each of the 12 regional network laboratories has maintained the annual international accreditation that assures the reliability and timeliness of its test results. Concurrently, an increasing number of the network laboratories are deploying newer and more advanced testing methodologies, including genetic sequencing of poliovirus isolates.

Women at the helm of polio laboratories

Women play important and integral roles at all levels of the polio programme, bringing in diverse perspectives into different aspects of the GPEI's programming. In line with the GPEI's Gender Equality Strategy, the regional polio programme is taking steps to improve participation of women at all levels of the programme (8). The Regional Director also served as a Gender Champion for the GPEI and took concrete efforts to highlight the role of gender in polio eradication. In 2023, women were heading seven of the 12 polio laboratories in the Region:

- In Giza, Egypt, Amira Zaghloul serves as the Director of the polio reference laboratory at the Egyptian Holding Company for Biological Products and Vaccines.
- Overseeing nine polio and measles departments means that Dr Hanan Al Kindi ensures every stool sample sent from Oman or other countries to her laboratory in Oman is promptly and reliably tested.
- Dr Nayab Mahmood, a virologist based in the Regional Reference Polio Laboratory at Pakistan's National Institute of Health, oversees 25 people who carry out the genetic sequencing of poliovirus isolates.
- Chief of the Laboratory of Clinical Virology at the Pasteur Institute of Tunis, Professor Henda Triki believes in the value of strong leadership. She constantly looks at ways to upgrade her team's skills and technology in her laboratory.

Currently, the programme is preparing some polio laboratories for the use of the direct detection method, which detects poliovirus directly from samples without having to first grow the virus in cell culture – this will be a gamechanger in testing for polioviruses in record time. Egypt and Pakistan are conducting studies on this methodology and after studies around the world are completed, this method of detection of polioviruses will be ready for roll out in the Region, including in the new laboratories that are being set up for this methodology in Afghanistan, Yemen and other countries.

Simulating outbreak response in polio-free countries

Continuing to advance preparedness and response capacities in polio-free countries that are at high risk of poliovirus outbreaks, the regional programme has been facilitating training and polio outbreak simulation exercises (POSE).

Since 2018, teams in Bahrain, the Islamic Republic of Iran, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, Tunisia and the United Arab Emirates have updated their national preparedness and response plans for polio outbreaks. Simulation exercises were conducted in the Islamic Republic of Iran in 2020 and in Libya, Qatar and the United Arab Emirates in 2023. The regional polio programme convened workshops in 2023 for staff from ministries of health, WHO and UNICEF from Egypt, Iraq, Jordan, Lebanon, Libya, the occupied Palestinian territory and the Syrian Arab Republic, to support them to update their outbreak preparedness plans and strengthen strategies to address gender-related barriers to an effective outbreak response.

Joining forces with Qatar to scale up AFP surveillance ahead of FIFA 2022



Qatar is a key partner in polio eradication. In preparation for the FIFA World Cup tournament in 2022, Qatar took key measures to mitigate the risks associated with the spread of diseases such as polio.

Following months of planning and coordination with the Government, and a review of the AFP surveillance system, WHO's regional polio team proposed vital measures to enhance AFP and environmental surveillance across the country (9). They also trained more than 200 public and private health professionals on global and regional polio risks, AFP surveillance and case reporting, and oriented health and government officials through a polio outbreak simulation exercise and on the use of the country's polio outbreak response plan. The simulation exercise ensures the responders are aware of activities to conduct within the first critical 72 hours after a polio outbreak is confirmed.

Certification and containment: laying the groundwork for assurance of polio eradication

Every year, countries in the Region that are free of wild polioviruses submit annual certification reports to the Regional Commission for Certification (RCC) of polio eradication. The RCC is the independent body that is responsible for certifying the Region as polio-free, for which it reviews countries' progress towards certification and confirms that countries of the Region that have not detected poliovirus are indeed free of polio.

In efforts to streamline this reporting, in May 2022, the RCC endorsed the new Electronic Annual Certification Reporting (e-ACR) system, for the data entry, archiving, submission, review and clearance of certification reports. The online customized and structured data entry system allows users to easily retrieve data and reports from different years for comparison and analysis.

Containment is critical to attaining and maintaining a polio-free world. It requires laboratories, vaccine production sites and other facilities handling or storing polioviruses to minimize the risks of inadvertently releasing these polioviruses into communities. The Region is implementing the WHO Global Action Plan IV and all countries that have destroyed or removed wild poliovirus or VDPV2 materials have documented the destruction processes. To assist countries in achieving containment goals, the regional polio team developed an online containment database which is being used by all countries. Two countries, the Islamic Republic of Iran and Pakistan, have opted to host designated polio essential facilities, which will store poliovirus strains for reference or vaccine manufacturing, adhering to strict containment measures.



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We are indeed at a critical juncture for eradicating polio from our Region, and ultimately the world. For us to succeed, we need to invest in building strong health systems and increasing the capacity of our health workers, as well as protecting them. These strong foundations will allow us to not only address the existing threat of polio, but also ensure that we are able to respond to all other emerging and re-emerging diseases beyond polio.

HE Abdul Rahman Mohammed Al Oweis

Minister of Health and Prevention, United Arab Emirates; Co-chair of the Regional Subcommittee for Polio Eradication and Outbreaks⁴



Decades of microplanning for house-to-house vaccination, training and deployment of local health workers, community mobilization, maintaining highly sensitive surveillance systems and preparing for and responding to polio outbreaks have sharpened the polio programme's knowledge, expertise and tools and have created a highly effective and operational public health infrastructure. These assets and experiences of the polio programme support other public health needs and have been deployed time and again to support countries during times of urgent need.

Pivoting to support health systems during the COVID-19 pandemic

When the magnitude of the COVID-19 pandemic became clear early in 2020, the polio programme took an initial four-month pause, from March to June, while its most prized assets – its health workforce – pivoted immediately to support national health systems and communities across the Region.

As the COVID-19 pandemic caught the entire world off guard in 2020, polio personnel proved to be a substantial asset to public health in the Region, particularly in countries with fragile health systems (10).

Their skills ranged from disease surveillance and laboratory testing, to outbreak response, infection prevention and control, data collection, management and analysis, vaccine supply and management, capacity development and communications, and meaningful engagement with communities. Polio personnel also provided support for the roll out of COVID-19 vaccines, evaluating cold chain for the vaccine and training health workers to administer vaccines to people of all age groups.

When the polio programme resumed polio-related activities in July 2020, personnel used measures such as wearing personal protective equipment and maintaining no-touch or minimal-contact techniques in interactions with communities and each other to minimize the risk of COVID-19 transmission during vaccination.

From July to December 2020, almost 68 million children in the Eastern Mediterranean Region received at least one dose of polio vaccine through supplementary immunization activities.

These efforts demonstrated the full value of the network and infrastructure developed over decades and supported by the investments of the GPEI in polio eradication.

Integration of assets to deliver broader health priorities

To ensure these rich legacies are sustained and utilized by countries to address broader essential public health needs, the Regional Director established and chairs a Regional Polio Transition Committee. The

As part of efforts to transition effectively, the relevant WHO country offices have established integrated public health teams that support and empower national health systems to deliver integrated, comprehensive public health functions. In addition to sustaining essential polio functions, which include AFP and environmental surveillance, the teams focus on three key areas: routine immunization, outbreak preparedness and response and disease surveillance.

⁴ Remarks delivered during the 8th Regional Subcommittee for Polio Eradication and Outbreaks in February 2023.

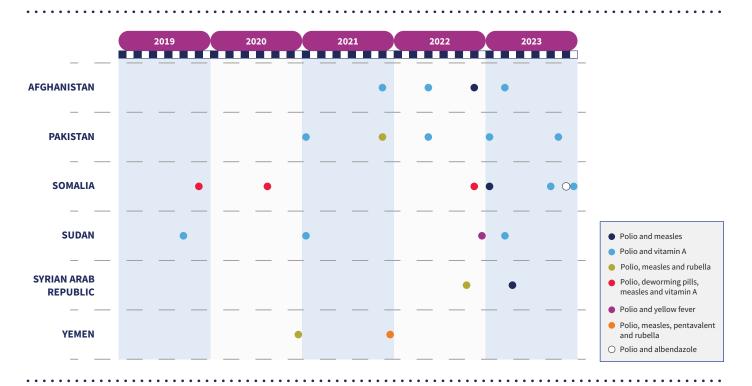
Committee prioritized polio transition in Iraq, Libya, Somalia, Sudan, the Syrian Arab Republic and Yemen to transition polio eradication assets and systems to support the broader national public health systems (11,12). Transition efforts in the polio endemic countries – Afghanistan and Pakistan – are on hold until the transmission of WPV1 is interrupted.

To chart the next steps in polio transition, WHO is currently finalizing a regional strategic plan focusing on sustaining polio essential functions and using polio assets, infrastructure and experiences to strengthen broader public health functions. This will update specific, tailored plans for each country and regional programme, with the aim of integrating key assets from the polio, immunization and WHO emergencies programmes to strengthen national health systems using feasible and inclusive approaches.

Boosting children's immunity against multiple diseases

The polio programme provides strong support to the essential immunization of children. In Afghanistan, the polio programme supported an integrated measles and polio campaign in December 2022 – the first since the political transition (13). In November 2021, in Pakistan's largest ever integrated measles/rubella campaign, more than 90 million children between nine months and 15 years of age were vaccinated (14). Children under five were also given oral polio vaccine. Additionally, other antigens are routinely included in polio campaigns, while EPI services are further strengthened through extensive outreach activities and health camps set up in districts with low vaccination coverage or facing emergencies. In Afghanistan, Iraq, Somalia, Sudan, the Syrian Arab Republic and Yemen, multiantigen campaigns are routinely supported by the polio programme (see Fig. 10).





First responders in natural calamities

In Pakistan, during the unprecedented floods that struck during the summer of 2022, polio teams supported the establishment of incident management, disease surveillance and health camps that provided critical clinical services (15). In Afghanistan, WHO's polio teams were the first responders to earthquakes in 2021 and 2023 and joined forces with United Nations agencies and nongovernmental organizations to deliver a coordinated and speedy response (16). Drawing on their local knowledge and relationships on the ground, they gathered reports on the effects of the destruction and mapped communities' immediate health needs to steer a focused response. They supported disease surveillance for acute watery diarrhoea, measles, tetanus and COVID-19.

For the earthquake response in the Syrian Arab Republic in 2023, WHO-supported health teams delivered

life-saving vaccines to children and adults to protect them from polio, measles, rubella and COVID-19. They drew on their inexhaustible strength and technical and interpersonal skills to protect over 1500 children and women in shelters and centres for the displaced from vaccine-preventable diseases.

Reaching personnel at grassroots levels with direct payments

Several countries in the Region do not have financial channels and systems in place to reliably and transparently pay the hundreds-of-thousands-strong polio frontline workforce. Against this backdrop, WHO introduced the Direct Disbursement Mechanism (DMM) to pay personnel at field level in the countries with the largest human resources footprint the programme has in the Region – Afghanistan and Pakistan (17). In 2022, Somalia joined the ranks in becoming the third country to deploy DDM for paying polio frontline workers (18). This transparent payment method replaces the use of cash and increases accountability, security and efficiency in delivering finances to any corner of the Region. Following this successful rollout of DDM, through knowledge transfer and by facilitating resource mobilization from partners, the polio programme is supporting the WHO Regional Office to use DDM to transfer funds to field personnel where needed in the Region.

The DDM was set up to ensure that these workers have quick and easy access to their payments upon completion of the vaccination rounds. Historically, vaccinators, area in-charges and union council medical workers had expressed frustration due to delays in their payments, which also affected worker morale.





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What I saw in Pakistan convinced me that we can and must finish the job of polio eradication, but it will only happen if we remain committed to a strategy that's working and back it with all necessary resources.

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Jennifer Jones

Rotary International President 2022–2023⁵

One of the key enablers for polio eradication is access to all children for polio vaccination activities. Only by building high levels of immunity against the virus can we prevent it from finding more hosts to infect. The polio programme has decades of experience in reaching children with polio vaccines to build these walls of immunity. Health workers have braved difficult terrain to reach children living in some of the most remote areas, while high-level political advocacy and negotiations have helped unlock doors to children who had not been accessible for years. The polio programme has learned key lessons in unlocking access to these children, particularly in Afghanistan, Pakistan and Somalia.

Lesson 1: A whole-of-government approach that creates strong ownership and support at the grass-roots level is critical

Through its work, the polio programme has brought together and mobilized different levels of government – from the highest-level national leadership and policy-makers to officials within health ministries, administrative services, security and law enforcement authorities, and foreign affairs and religious affairs bodies – to work in tandem with health workers and communities to end polio. At each level, commitment shown in different capacities, from advocacy to action on the ground, has helped move the needle. In the conflict-stricken Syrian Arab Republic, this strong collaboration resulted in the closure of a cVDPV2 outbreak within 18 months of its detection in June 2017. Despite the protracted war that began in 2011, the polio programme was able to implement response activities and vaccine management in a timely manner, with support from partners, including donors. The programme also focused on strengthening grass-roots community engagement to build children's immunity across the country.

By November 2022, Sudan was successful in closing a cVDPV2 outbreak detected in August 2020 amid a slew of emergencies, including the COVID-19 pandemic lockdown and political instability.

Lesson 2: Strong partnerships, including with the EPI, allow the programme to reach missed children through innovative approaches

In efforts to prioritize zero-dose and missed children, the polio eradication programme of Pakistan partnered with the EPI to improve the immunity of children in the historic polio reservoirs of Karachi and Peshawar and roll out the Reaching the Unreached initiative in the endemic zone of southern Khyber Pakhtunkhwa. The latter intervention is a targeted outreach in 69 high-risk union councils with a high density of zero-dose children. The initiative combines the delivery of polio and other antigens over a period of eight days at a stretch – different from the usual five-day campaign cycle – to reach missed and zero-dose children. Similar partnerships with EPI and multiple humanitarian relief agencies in Afghanistan are helping to build the immunity of children in the endemic east region and the high-risk south region.

Lesson 3: Building and maintaining trust in the programme is important to sustain access

The polio programme has had a long history of staying and delivering more than just polio vaccines. In Afghanistan, for more than two decades, the programme has been supporting polio eradication efforts and other

⁵ Quote published in Rotary International October 2022 newsletter.

acute health emergencies. In August 2021, over 85% of WHO polio staff stayed in place to deliver essential polio activities, including AFP and environmental surveillance. Following the political transition, WHO's polio personnel were instrumental in reporting in real time the status of essential health services across the country. These assessment reports were instrumental in directing emergency medical supplies to the *Sehatmandi* project, the backbone of the health system and the main source of primary health care for millions of Afghans.

Lesson 4: Advocacy at all levels is essential to reach every last child

Under the leadership of the Regional Director, the health leadership of Member States and the GPEI have come together to demonstrate their commitment to polio eradication and to support front- and back-channel advocacy for priority countries in the Region. One such result of the high-level political advocacy with Taliban leadership was the early resumption of immunization activities after government transition in Afghanistan in 2021. This allowed the programme to access 3.5 million children who were previously not accessible to the programme. Since November 2021, the polio programme has intensified vaccination activities and reduced the number of missed children significantly. Another illustration is the sustained high-level commitment to end polio in Pakistan, despite multiple transitions in provincial and federal governments between 2018 and 2023.

Lesson 5: Coordinating across shared borders is required to ensure no child is missed

Cross-border coordination is crucial in the effort to stop poliovirus transmission. Polio knows no borders, and cooperation between neighbouring countries allows for more robust situation analyses and for countries to take joint actions to limit any spread.

In the last five years, strong efforts have been made between specific countries and subregions. Two epidemiological blocs were defined for cVDPV2 transmission: one bloc including Djibouti, Ethiopia, Kenya, Somalia and Yemen, and a second comprising the Central Africa Republic, Chad, South Sudan and Sudan. Within these blocs, coordination takes place based on need, such as between Chad and Sudan, and Somalia and Kenya. Through more focused coordination within cross-border corridors, district surveillance officers in specific locations share information, including on cross-notification of AFP cases, population movements and any pockets of missed children.



THE WAY FORWARD

All the ingredients of success are in place to achieve and certify polio eradication in the Eastern Mediterranean Region. The polio programme, in concert with governments, donors, communities and other partners, has created a very real opportunity to interrupt wild poliovirus transmission in the Region in time for the certification of polio eradication by the end of 2026. With the introduction of nOPV2 and access to all children, outbreaks of circulating vaccine-derived poliovirus should be interrupted during the coming biennium of 2024–2025. The strong political commitment that has been galvanized; enduring strong partnerships; resilient and experienced polio programmes at the national and regional level; a highly sensitive surveillance network; and inclusivity – attained by advancing gender equity and engaging all communities to reach all children, no matter where they live – are the key ingredients to getting over the finish line.

The polio programme will continue to leverage the platform of strong regional commitment and impetus created by the WHO Regional Director towards polio eradication efforts. The incoming Regional Director, Dr Hanan Balkhy, has expressed her strong commitment to end polio. Her leadership will be essential given the critical role that she is positioned to play in keeping a spotlight on polio eradication both within the Member States and across the Region and the globe.

The Regional Subcommittee for Polio Eradication and Outbreaks convened by the Regional Director has been instrumental in fostering the regional ownership of challenges and ensuring commitments to implement solutions. By continuing to leverage the leadership of the co-chairs and the Member States, the programme will advocate and secure access to every last child, particularly zero-dose and underimmunized children, for surveillance and for the provision of polio vaccines and other essential health services.

In line with one of its key priorities, the regional polio programme will continue to provide technical support to endemic, outbreak and at-risk countries to prepare for and respond to any poliovirus circulation or importation. This will include efforts to continue to intensify surveillance for polioviruses and preparedness for outbreak response.

Since its establishment, the polio programme has honed the skills of an extensive workforce and created efficient systems to detect, test for and respond to diseases. These systems and assets will be sustained through systematic integration with essential public health programmes in the Region. This integration will enhance essential immunization for children, the response to health emergencies and outbreaks and more integrated disease surveillance.

In preparation for a polio-free world, the regional polio programme will continue to support countries to prepare for the certification of polio eradication, which ensures the documentation of wild poliovirus-free status in the presence of surveillance and immunization that meets expected standards. Concurrently, diligent measures will be sustained for the containment of polioviruses in laboratories and vaccine production facilities.

Attaining these objectives will continue to empower and leverage the polio programme's workforce, advance health equity and systems across countries and create a polio-free world.



REFERENCES

- 1. GPEI Strategy 2022–2026. Geneva: Global Polio Eradication Initiative; 2021 (https://polioeradication.org/gpei-strategy-2022-2026, accessed 15 Jan 2024).
- 2. WHO Regional Committee for the Eastern Mediterranean resolution EM/RC67/R.4 on galvanizing efforts to eradicate polio in the Eastern Mediterranean Region. Cairo: WHO Regional Office for the Eastern Mediterranean; 2020 (https://applications.emro.who.int/docs/EMRC67R4-eng.pdf, accessed 8 Jan 2024).
- 3. United Arab Emirates re-affirms commitment to ending polio in Pakistan. Islamabad: Global Polio Eradication Initiative; 2021
 - (https://polioeradication.org/news-post/united-arab-emirates-re-affirms-commitment-to-ending-polio-in-pak istan/accessed 8 January 2024).
- 4. Vaccination on wheels for nomadic children. Geneva: Global Polio Eradication Initiative; 2023 (https://polioeradication.org/news-post/vaccination-on-wheels-for-nomadic-children, accessed 8 January 2024).
- Gearing up to stop polio in Afghanistan and Pakistan. Cairo: WHO Regional Office for the Eastern Mediterranean; 2023 (https://www.emro.who.int/polio-eradication/news/gearing-up-to-stop-polio-in-afghanistan-and-pakistan.html).
- 6. Women health workers hold the key to eradicating polio. Geneva: Global Polio Eradication Initiative; 2023 (https://polioeradication.org/news-post/women-health-workers-hold-the-key-to-eradicating-polio, accessed 8 January 2024).
- 7. Report on the implementation of Vision 2023 for the Eastern Mediterranean Region. Cairo: WHO Regional Office for the Eastern Mediterranean; 2023 (https://applications.emro.who.int/docs/Advancing-Health-For-All-by-All-Report-eng.pdf, accessed 17 January 2024).
- 8. This is what lab leaders look like: voices of women leading lab innovations to end polio. Geneva: Global Polio Eradication Initiative; 2023 (https://polioeradication.org/news-post/this-is-what-lab-leaders-look-like-voices-of-women-leading-lab-inno vations-to-end-polio, accessed 8 January 2024).
- 9. Getting ahead of the game. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (https://www.emro.who.int/polio-eradication/news/getting-ahead-of-the-game.html, accessed 8 January 2024)
- 10. Contributions of the polio network to the COVID-19 response: turning the challenge into an opportunity for polio transition. Geneva: World Health Organization; 2020 (https://www.who.int/publications/i/item/9789240011533, accessed 8 January 2024).
- 11. Integrated Public Health Teams: helping Sudan move forward on polio transition. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (https://www.who.int/news-room/feature-stories/detail/integrated-public-health-teams-helping-sudan-move -forward-on-polio-transition)
- 12. Syria takes steps to advance polio transition while strengthening essential health priorities. Cairo: WHO Regional Office for the Eastern Mediterranean; 2023 (https://www.emro.who.int/syria/news/syria-takes-steps-to-advance-polio-transition-while-strengthening-ess ential-health-priorities.html).
- 13. Polio programme provides vital support to nationwide measles vaccination in Afghanistan. Geneva: Global Polio Eradication Initiative; 2023 (https://polioeradication.org/news-post/whos-polio-programme-provides-vital-support-to-nationwide-measl es-vaccination-in-afghanistan, accessed 8 January 2024).

- 14. Nationwide measles and rubella campaign aims to vaccinate more than 90 million children. Cairo: WHO Regional Office for the Eastern Mediterranean; 2021 (https://www.emro.who.int/pak/pakistan-news/nationwide-measles-and-rubella-campaign-aims-to-vaccinat e-more-than-90-million-children.html).
- 15. Pakistan polio infrastructure continues support to flood relief, while intensifying eradication efforts. Geneva: Global Polio Eradication Initiative; 2022 (https://polioeradication.org/news-post/pakistan-polio-infrastructure-continues-support-to-flood-relief-while -intensifying-efforts-to-eradicate-polio, accessed 8 January 2024).
- 16. Polio teams support response to devastating earthquake in Afghanistan. Geneva: Global Polio Eradication Initiative; 2022 (https://polioeradication.org/news-post/polio-teams-support-response-to-devastating-earthquake-in-afghani stan, accessed 8 January 2024).
- 17. Direct disbursement mechanism for polio workers. Cairo: WHO Regional Office for the Eastern Mediterranean; 2012 (https://www.emro.who.int/pak/pakistan-news/the-world-health-organization-has-announced-that-it-will-pa y-front-line-polio-eradication-workers-directly-in-10-districts-in-the-upcoming-september-sub-national-immu nization-days-sn.html).
- 18. Use of direct disbursement mechanism to pay the grassroots vaccination personnel in Somalia: a financial innovation for transparency and accountability. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (https://www.emro.who.int/images/stories/somalia/documents/Polio-case-study-may-2022.pdf, accessed 8 January 2024).



