

THE WORLD IS WAITING

19TH REPORT



Nineteenth Report

December 2020

INDEPENDENT MONITORING BOARD

GLOBAL POLIO ERADICATION INITIATIVE

INDEPENDENT MONITORING BOARD

The Independent Monitoring Board (IMB) provides an independent assessment of the progress being made by the Global Polio Eradication Initiative (GPEI) in the detection and interruption of polio transmission globally.

Its members are:

SIR LIAM DONALDSON (CHAIR)

Former Chief Medical Officer of England, Professor of Public Health, London School of Hygiene and Tropical Medicine.

DR ALA ALWAN

Regional Director Emeritus, WHO, Professor, Department of Global Health, University of Washington, and Professor of the Practice of Global Health, London School of Hygiene and Tropical Medicine.

DR THOMAS FRIEDEN

President and CEO of Resolve to Save Lives (an initiative of Vital Strategies, USA) and former Director, The Centers for Disease Control and Prevention, Atlanta, USA.

PROFESSOR SUSAN GOLDSTEIN

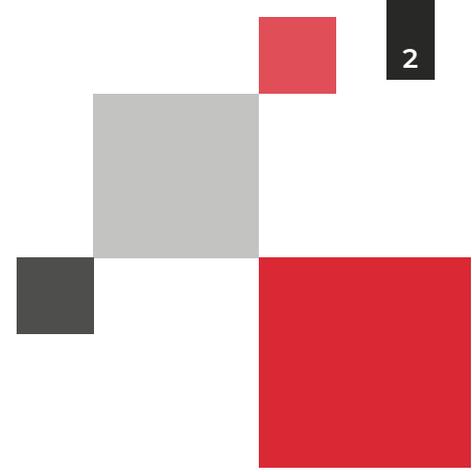
Deputy Director SAMRC Centre for Health Economics and Decision Science, School of Public Health, University of Witwatersrand, South Africa.

DR MUHAMMAD PATÉ

Global Director, Health, Nutrition and Population and Director, Global Financing Facility for Women, Children and Adolescents the World Bank. Former State Minister of Health, Nigeria.

The IMB's reports are entirely independent. No drafts are shared with the Polio Programme prior to finalisation. Although many of the data are derived from the GPEI, the IMB develops its own analyses and presentations.





CONTENT

INTRODUCTION	3
GLOBAL OVERVIEW	5
PAKISTAN	25
AFGHANISTAN	38
DATA INSIGHTS	47
CONCLUSIONS	57
RECOMMENDATIONS	72



INTRODUCTION

Taken together, the 17th (November 2019) and 18th (July 2020) IMB reports showed: deep-seated, long-standing and intractable barriers to polio eradication; a worsening epidemiological situation for wild poliovirus in Pakistan and Afghanistan; widespread vaccine-derived poliovirus outbreaks affecting 20 or more countries; and a failure to create, or implement quickly enough, transformative solutions that matched the complexity of the problems. The 16th IMB (October 2018) report was preceded by a separate expert field review of the polio-endemic countries, which raised wide-ranging concerns about the Polio Programme's fitness for purpose.

The problem diagnosis and messages from this careful scrutiny by the IMB, over several meetings and after in-depth independent country visits, left little room for doubt about where strategic action by the GPEI and country leadership needs to be focused. Moreover, it is entirely consistent with the content of even earlier IMB reports, and with the frustration and views of major polio eradication stakeholders and seasoned expert observers of the Polio Programme.

The clear line of sight to the root causes of the slump in performance of the polio eradication effort during 2019 and to the barriers facing the programme became blurred and distorted by the arrival of the COVID-19 pandemic. This was the subject of much of the last (18th) IMB report.

The 18th IMB report set out three strategic issues confronting the Polio Programme.

The first is that the barriers to eradication that pre-existed COVID-19 are largely still extant and must be addressed.

The second is what the Polio Programme will look like, or should look like, coming out of the COVID-19 crisis. Will it be on the same pathway to eradication as was being pursued before





(i.e. predominantly vertically delivered) or will there be a shift to integrated delivery (as part of essential childhood immunisation programmes)?

The third issue is what will be the impact on eradication of the operating constraints and additional budgetary pressures of COVID-19?

Since March 2020, the IMB has heard impressive accounts of the way in which polio eradication assets had been repurposed and are helping greatly in the fight against the pandemic. Indeed, many people have spoken of a COVID-19 “silver lining”; this references the much better joint working of teams, and the dissolution of many organisational and professional boundaries. Specifically, given the rapid mobilisation of the Pakistan government’s response to COVID-19, people have asked: if Pakistan can do it for COVID-19, why can they not do it for polio?

This 19th IMB Report follows a series of videoconference meetings of the Board held on 17 to 19 November 2020 with the GPEI Strategy Committee, regional representatives, donors, wider polio partners and the governments of the polio-endemic countries.

It provided the opportunity to take stock of the Polio Programme after it has resumed some polio eradication activities in the field; as it is poised to introduce hundreds of millions of doses of a new oral polio vaccine to combat the effects of vaccine-derived poliovirus; as it begins, at strategic level, to revisit the factors that had made it a failing endeavour before COVID-19 emerged onto the world stage; as it puts in place measures to operate within the constraints imposed by the ongoing pandemic threat; and, all of this, as it faces unprecedented financial pressures.

GLOBAL OVERVIEW



In the first session of the IMB meeting, the GPEI leadership began by stating its view that three main challenges confronted the Polio Programme as it moved to the end of 2020, a momentous year.

The first challenge is the perceived lack of full country ownership for the polio situation on the part of the endemic countries and some of the outbreak countries.

The second challenge is the very low population immunity against type 2 poliovirus; this poses a high level of risk of the international spread of type 2 vaccine-derived poliovirus.

The third challenge is related to the COVID-19 pandemic and its impact on the Polio Programme, both on delivery of services and on costs and funding.

The positive news of 2020 is the certification on 25 August of the African region as wild poliovirus-free.

Aside from that, the story of polio in 2020 has been one of expanding outbreaks of vaccine-derived poliovirus in sub-Saharan

Africa that have spread from one country to another over the last two years, together with the ongoing serious problems, and lack of progress, in the two remaining endemic countries. The situation has been exacerbated by the way that the COVID-19 pandemic has played out within polio-affected and polio-vulnerable countries across the world.

In the polio-endemic countries, Pakistan and Afghanistan, there is dual circulation of type 1 wild poliovirus and type 2 vaccine-derived poliovirus. They are occurring across multiple districts.

The vaccine-derived outbreak started in the northern areas of Pakistan, has spread across the two countries, and now has infected all the core reservoirs. The priority for Pakistan and Afghanistan is rapidly to knock out the vaccine-derived poliovirus and the ongoing danger that it poses, as well as retaining absolute focus stopping the wild poliovirus.

A fuller consideration of the situation in the two polio-endemic countries and the IMB's view comes later in this report.

ONGOING PROGRAMMATIC IMPACT OF COVID-19

In the third week of March 2020, the GPEI Polio Oversight Board was convened and issued a statement.

All mass immunisation and door to door campaigns were suspended, first to avoid the Polio Programme being responsible for the further and intensified spread of COVID-19. Second, to enable governments to call upon Polio Programme staff in their countries to support them in the response to the COVID pandemic.

Thus, the GPEI was able to help countries through use of polio eradication assets and skills, including human resources, data management, risk communication and surveillance. Over 31,000 staff were repurposed to fight the coronavirus pandemic, mostly in the African and Eastern Mediterranean Regions. Polio Programme resources worth more than \$60 million were used.

Over 60 campaigns have been paused in close to 30 countries since late February 2020. This has had a direct effect on vaccine supplies. Purchased vaccine, already delivered to countries, was not used. Vaccine procured at manufacturers could not be shipped because of the difficulties in international travel. Some vaccines expired. Manufacturers producing vaccines have

limited storage capacity and, if they cannot ship the vaccine, then this has the potential to stop production.

When the Polio Oversight Board decided to suspend the programme, it recommended that surveillance for both wild and vaccine-derived polioviruses should continue, along with efforts to bring in the novel oral polio vaccine.

The suspension of activities affected surveillance. There was a significant drop in acute flaccid paralysis cases reported in a number of countries, especially in the Middle East, and in the South-East Asia and Western Pacific Regions, as well as in Africa. They included the polio-endemic countries, some of the polio-outbreak countries and other non-infected high-risk countries.

The GPEI developed a plan to respond to the coronavirus pandemic with three phases: Emergency phase (March –June 2020); Resumption phase (July –September 2020); Para-pandemic phase (October 2020 onwards).

The GPEI team informed the IMB that national and subnational-level leadership and coordination by governments, coupled with timely support from partners, had been critical to successful resumption of polio eradication activities. Extremely tight coordination and high-quality technical

support from the COVID-19 perspective had also been vital and will continue to be so.

There are, of course, additional costs associated with personal protective equipment, communication and training. Community engagement, especially in key areas of the endemic countries, was already problematic, but the polio eradication resources being used for communications on COVID-19 have been helpful. In some places, they may have softened populations' attitudes towards the oral polio vaccine.

At the time of the IMB meeting, in mid-November 2020, a second wave of COVID-19 was underway in the polio-endemic countries, many polio-outbreak countries and polio-vulnerable countries. Sustaining and building on the resumed polio immunisation campaigns and related activities is essential but does have an impact on frontline health workers. They are at risk in going door to door in the midst of a pandemic.

The GPEI issued country guidance to resume activities, plan resumption, putting emphasis on the safety of communities and frontline workers as well as, wherever possible, coordinating polio activities with other public health programmes.



IMB ASSESSMENT

The Polio Programme at global, regional and national levels is to be commended for the major part it played, through a repurposed role, in combating the new and unexpected threat of a coronavirus pandemic. Although it was a bold policy decision by the Polio Oversight Board, it was also a pragmatic one, since tackling the first wave of COVID-19 inevitably became the unequivocal top health priority of governments throughout the world.

The all-consuming nature of the work on COVID-19 has come at a cost to the polio eradication endeavour. Some surveillance standards have slipped. Cancelled immunisation campaigns have allowed the poliovirus to spread and led to increases in the numbers of children who lack immunity to polio and are therefore susceptible. Uncertainties have been introduced into vaccine availability and supply. Essential immunisation coverage rates have fallen in many places.

The subsequent resumption of polio activities in many countries, notably Pakistan and Afghanistan, from July 2020, is a positive development. The continuation of planned campaigns is vital.

It is not yet clear how COVID-19 levels will affect the sustainability of the polio campaign resumption, nor how the polio eradication assets (so vital in the first pandemic wave) will again be diverted to deal with second and later waves.

One of the greatest challenges is prioritisation at national government level: how to ensure that polio is brought back up the countries' agendas in parallel with COVID-19, and to utilise the kind of mobilisation that was effective in responding to the first wave of the pandemic.

The obvious and deserved pride that the polio-endemic and some polio-affected countries feel about their handling of

COVID-19 has led to repeated references to a “silver lining.” It is clear from the IMB’s discussions with the GPEI leadership, and leaders in Pakistan and Afghanistan, that the Polio Programme wishes to learn from the COVID-19 operating model and work differently in the future. The most important of these lessons is to recognise the merits of a public health emergency modus operandi.

This is something that the IMB has been advocating for some time:

4th IMB report, 2012: Countries, partners and all who have a stake in polio eradication need to understand the severity of the situation. The impact of an emergency response will not come from what they say, but from what they now do.

7th IMB report, 2013: At the heart of the matter is a yearning for short decision chains, for clarity in who leads on what, for rapid action in response to urgent challenges, for each and every group to add real value, and for a greater feeling of “one team”.

IMB Field Review, 2018: All three endemic countries have prioritised polio eradication at the highest levels of government. However, the sense of urgency, flexibility, and local empowerment needed to address polio as a global public health emergency is not consistently evident.

Given the Polio Programme’s past resistance to respond to such calls to operate in a high-energy manner, it remains to be seen whether it can successfully model its future self on a COVID-19-style delivery.

New COVID-19 vaccines will be available for deployment. This will be the global priority for the next year.

Many decisions for prioritising the use of COVID-19 vaccines will be made nationally. However, there should be a global interest in protecting public health workers who will be at risk in delivering immunisation and other essential services in communities still experiencing outbreaks of COVID-19.

It would be ideal if a rapid mobilisation of vaccine for these workers was coordinated globally rather than leaving it for individual countries to implement on variable timescales.



THE MOST IMPORTANT
OF THESE PANDEMIC
LESSONS IS TO RECOGNISE
THE MERITS OF A PUBLIC
HEALTH EMERGENCY
MODUS OPERANDI



PROGRESS WITH INTEGRATED PROGRAMME DELIVERY

The polio eradication and essential immunisation programmes are undertaking an Integrated Programme of Work.

Integration is a key goal in the strategic plans of both programmes. Integration, as a concept, has been talked about for some time, but implementation has been ad hoc and opportunistic, with no structured way to think about exactly what is intended to be integrated.

The centrality of integration to both the Immunization Agenda 2030 and Gavi 5.0 was another impetus for this Integrated Programme of Work. It started as a multi-stakeholder process, after comprehensive mapping of ongoing integration, and identification of key gaps and opportunities.

The objective is to accelerate the alignment and coordination of work among partner agencies on polio and essential immunisation. This approach seeks to define immediate integrated actions required to meet the challenge of the current context of the COVID-19 pandemic. It also takes on the broader task of enhancing and improving the capacity and capability of the essential immunisation and polio eradication programmes to achieve their goals.

The resumption of the polio and essential immunisation campaigns, on the same post-COVID-19 timescale, and under similar pandemic operating protocols, has provided an exceptional opportunity for integrated delivery models. In total 91 immunisation campaigns were postponed, because of COVID-19, in 53 countries. Most were measles and polio immunisation campaigns.

The action initiated by the GPEI Polio Oversight Board at the end of 2018, in response to a recommendation by the IMB, was directed at an even bolder kind of integration: targeting the most deprived communities in Pakistan and Afghanistan with funds to regenerate water and sanitary infrastructure and broad-based public health services.

The IMB regarded its recommendation as having transformational potential. The IMB had argued that there would be three benefits.

The first was an environmental benefit: that improved sanitation, hygiene and water purity would be likely to reduce the circulation of the poliovirus. The second benefit was a straightforward moral one, an equity benefit: that it is unfair that these communities should be in such a deprived state, and that they should be helped to boost and sustain their quality of life and life chances. The third benefit was the prospect of greater trust within the communities.

The IMB field visit in 2018, together with repeated surveys and multiple streams of soft intelligence, have shown that these poor communities are hostile to the oral polio vaccine, partly on the grounds that they felt they were being expected to do something for the Polio Programme, while so little was being done for their health and wider needs. If these investments in infrastructure and services were to be perceived as beneficial by the community members themselves, then the goodwill generated would make the Polio Programme more acceptable.

The 40 super-high-risk union councils identified by the programme comprising three million people (547, 000 children under five years old) are the target for this integration.

The implementation vehicle is the Pakistan Government's sub-package for polio within the Universal Health Coverage Essential Package of Health Services. It has been developed in collaboration with the Disease Control Priorities Project and endorsed by the Federal Minister and the Inter-ministerial Forum (all the provincial ministers). It was planned and costed by the Emergency Operations Centre Integrative Service Delivery Task Team in collaboration with the Disease Control Priorities Project and

UNICEF. About 12 health interventions have been included in the sub-package. Another part of the package addresses water and sanitation. A very innovative and relatively low-cost set of interventions has been developed by experts from UNICEF, WHO and CDC (The US government Centers for Disease Control and Prevention) and endorsed by the Pakistan government in May 2020.

The programme has still not secured the funds required for full implementation of this sub-package. The initial costing was \$24 million over three years, a figure of \$18 million is now being suggested. Implementation has been initiated in seven union councils. Five health facilities have



been refurbished; hygiene kits, soap and masks have been distributed during polio campaigns, but action so far has been rather patchy and fragmented.

The Afghanistan Polio Programme has developed an integrated service delivery plan to address basic needs in the most deprived communities, particularly in the polio-endemic provinces of south – Kandahar, Helmand and Uruzgan.

Implementation of the plan has been initiated but the pace has been slow due to limited resources and challenges in coordination. The plan includes interventions related to improving essential immunisation, strengthening primary health care delivery systems, education, nutrition and WASH (Water, Sanitation and Health).

During its meeting, the IMB was informed about an initiative, built upon a previous National Immunisation Support Programme, in which the Pakistan Government is negotiating with the World Bank Global Financing Facility for Women and Children, and other partners, to secure substantial funding for its universal health coverage package. This has 80 benefits to be delivered through primary health care system interventions. Such funding is unlikely to become available before September or October 2021.

The choice of the places and communities that are to get the investment will be guided by national government and provincial governments in Pakistan.



IMB ASSESSMENT

The term “integration” is now very widely used within the Polio Programme and by its partners. Its use has different meanings, not all of which are made explicit when activities are being described or discussed.

The GPEI leadership told the IMB that there were extensive strategic discussions about integrated models of polio vaccine delivery during the COVID-19-induced pause in polio activities. In particular, the Integrated Programme of Work is underway.

In practice, when the Polio Programme restarted after the COVID-19 lockdown, some countries, but very few, resumed with an integrated model of delivery. One example is Somalia. The integrated campaign there comprised measles-rubella, bivalent oral polio vaccine, vitamin A and deworming tablets; so, it was bringing other health products or amenities valued by communities, not just immunisations. This kind of package of public health benefits, added to the multi-antigens, is also referred to as “integration”.

This is a practical mode of integrated delivery that perhaps sets the stage for the future.

In the present reality, the Polio Programme does not yet seem ready to move wholly over to integrated delivery of its oral polio vaccines. It is so pressurised to stop the expansion of circulation of the two types of poliovirus that little time has been spent in planning beyond traditional polio campaigns.

It is, of course, true that the logistics of integrating with anything else, the multiple, intensive, population-tracking oral polio vaccine response rounds is very difficult.

The IMB’s overall impression is that there has been some progress on integrated services delivery, particularly in providing some basic amenities that are valued by poor communities such as soap and vitamin A. There have also been some joint polio-measles campaigns.

In general, though, the approach to integration has been fragmented, patchy and on a scale inconsistent with the seriousness of the community mistrust that is a major impediment to polio eradication. The IMB greatly welcomes the Integrated Programme of Work.

The specific programme aimed at improving the environment, quality of life, and access to public health services through investment in the most impoverished communities in Pakistan (the “sub-package” of services) has been moving slowly.

In its last (18th) report, the IMB expressed concern about the loss of a potentially transformative opportunity first initiated by the Polio Oversight Board following an IMB recommendation towards the end of 2018.

The GPEI leadership reminded the IMB that the Polio Oversight Board decision back in 2018 was after a call for action from the Executive Director of UNICEF to launch a resource mobilisation effort, not through the GPEI, but by each one of the individual polio stakeholders.

UNICEF has taken this forward, has tried to raise resources, but has found it difficult to raise as much as they had planned to. The GPEI leadership says that it has no skills to implement a broader range of health services. Moreover, it stated that it does not have the resources to finance large, or even

small, amounts of integrated services from the GPEI budget.

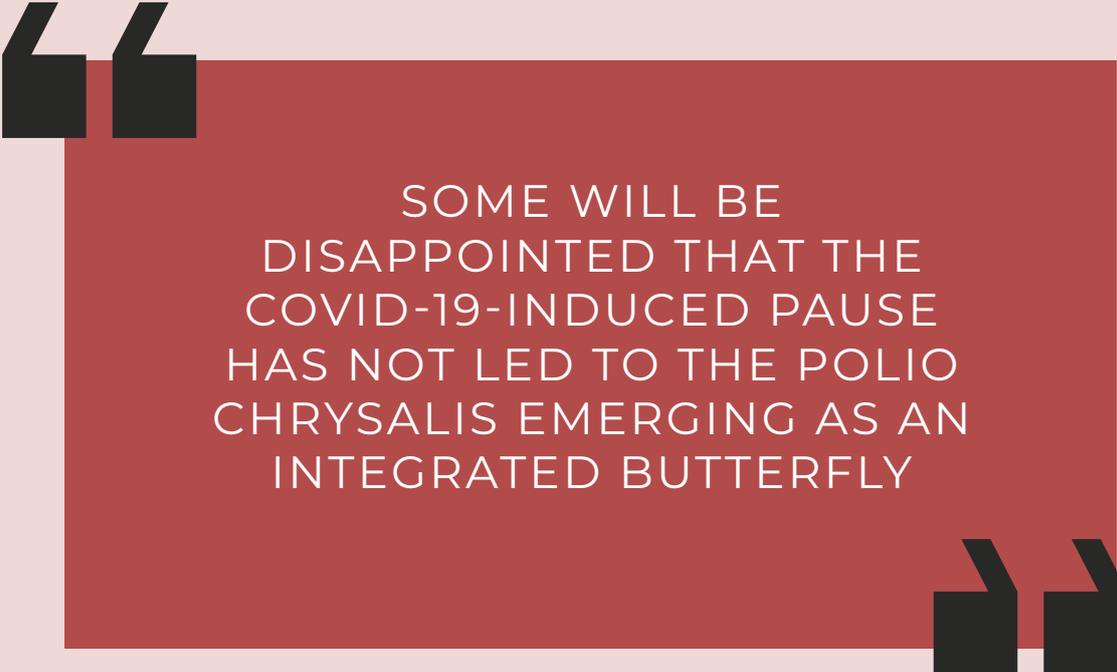
The GPEI position is that the costs of outbreaks of polio have increased so much that they are “in the red” for the next year onward, and not even sure that they will be able to carry out the plan for purely scheduled activities. It is committed to advocate, help, and support fundraising and has issued an appeal to the donors to commit at country level to addressing weak systems in multiply deprived communities.

The IMB understands that the GPEI’s focus and funding base is not directed towards community development, nor on strengthening infrastructure and local public health systems. Nevertheless, the initiative was signed off by the GPEI Polio Oversight Board and many of the polio partners see it as a key step on the critical path to polio eradication. It is deeply

disappointing that it is not being handled with an active and dynamic project management approach.

The new, separate and additional opportunity for strengthening local public health systems has been created by the current World Bank–Pakistan Government initiative. The key step is the selection of local areas for investment. It would be a very positive development if the communities chosen were the Tier 1 (very high risk) polio districts.

It is important, for completeness, to mention that, during polio transition discussions, the term “integration” is also used to refer to combined local teams of polio, essential immunisation, and health emergencies. This concept was discussed at the recent Polio Transition Independent Monitoring Board (TIMB) meeting and will be covered in the TIMB report.



SOME WILL BE
DISAPPOINTED THAT THE
COVID-19-INDUCED PAUSE
HAS NOT LED TO THE POLIO
CHRYSLIS EMERGING AS AN
INTEGRATED BUTTERFLY

OUTBREAKS AND VACCINE DEPLOYMENT

At the time of its 17 November 2020 meeting, the IMB was informed by the GPEI leadership that there were 667 cases of type 2 vaccine-derived poliovirus globally, compared with 157 at the same point in 2019.

Between April and June 2020, there was substantial cross-border, international spread, for example: from: Pakistan to Afghanistan; Côte d'Ivoire to Mali; Guinea to Mali; Côte d'Ivoire to Ghana; Ghana back to Côte d'Ivoire; Central African Republic to Cameroon; and Chad to Sudan and also to South Sudan.

These outbreaks are the consequence of multiple factors, including: the 2016 switch of trivalent to bivalent oral polio vaccine (with resulting decline in type 2 poliovirus immunity levels); the seeding of outbreaks with the continued use of monovalent oral polio vaccine type 2 to combat vaccine-derived poliovirus emergence in areas with low coverage; low quality outbreak response campaigns themselves (most recently exacerbated by the constraints of operating within COVID-19 protocols); and poor essential immunisation coverage.

Overall, 18 of the 41 instances of vaccine-derived poliovirus emergence in 2019 have continued into 2020. Ten new and distinct emergence events started in 2020 and 90% of those occurred after the COVID-19-induced suspension of operations in March 2020. All of these came from seeding following the continued use of monovalent oral polio vaccine type 2, except for Pakistan and Afghanistan where, despite a number of field investigations, the source of infection remains obscure.

In campaigns prior to COVID-19, where the Polio Programme did two rounds of immunisation response, despite the variable quality of those activities, population immunity was achieved in many situations. Indeed, in 77% of outbreak zones no further detections occurred. Multiple outbreaks have been successfully dealt with in 2020, including those in Myanmar, Angola, Zambia, Democratic Republic of Congo and Nigeria.

Meantime, detailed GPEI guidance has enabled most countries, using existing tools, to resume post-lockdown polio activities; or helped newly affected countries – for example, Mali and Côte d'Ivoire, Sudan and Yemen – to start their response activities.

The GPEI's review of the campaign data, in multiple countries where there have been two rounds of activities, has shown reduced quality and clear performance gaps since the restart.

There are a number of factors involved, including COVID-19 itself; in some cases, people who have worked in the pandemic response teams have not been paid. There has been an upsurge in refusals in places (e.g. Cameroon and Togo). Other factors, such as elections, have affected performance in some countries.

Not all governments, when faced with multiple public health emergencies, treat polio as their top priority. There have been delays in campaigns, for example, in Democratic Republic of Congo, because government funding was beyond the parameters of the programme. Chad wanted to wait for the novel oral polio vaccine and



so would not restart its campaigns. They have since started, but the virus had, in the meantime, spread across borders. In some geographies, polio activities have not been on a big enough scale. There have been pressures on vaccine availability, though no campaigns have been denied vaccine. The 2020 budgetary ceiling for outbreaks has been far exceeded.

The GPEI has taken steps at all levels to address the quality problems. For example, detailed assessment in the Philippines has examined gaps in campaigns, but also surveillance.

In Africa, there has been a major review of the reasons for suboptimal performance: a datasheet analysis; an analysis of workloads; and establishing the reasons for refusals. Some country-specific improvement measures have been put in place to address the weaknesses found in round one of the resumed campaigns. The GPEI outbreak task team has put in

place guiding principles to prioritise the distribution of vaccines. Prioritisation is based on factors such as the epidemiology, the addition of newly affected countries, expanding outbreaks, and stockpile management principles.

The epidemiological pattern reinforces the urgent need for a more stable outbreak management vaccine on the path to eradication.

The novel oral polio vaccine type 2 is being introduced through an Emergency Use Listing. This procedure assesses the suitability of an unlicensed product during a public health emergency. Country governments must formally decide whether to deploy the new vaccine and, if so, get ready to meet the rigorous requirements governing its use. Vaccines introduced under this Emergency Use Listing procedure must meet detailed and mandatory conditions throughout the entire period of their use.



IMB ASSESSMENT

It is fair to acknowledge the experience that almost three quarters of outbreaks are extinguished, but a quarter are not. Moreover, the monovalent oral polio vaccine type 2, the current weapon of choice in combating outbreaks, is itself seeding new outbreaks in adjacent districts or in neighbouring countries.

The large size of vaccine-derived poliovirus outbreaks in Pakistan and Afghanistan is a threat to other countries, especially the one in Pakistan, because large amounts of monovalent oral polio vaccine type 2 that will be deployed. As a result, the poliovirus could transmit to communities outside Pakistan and Afghanistan. It has been detected already in sewage in Iran. Since most of these countries have a very low population mucosal immunity against type 2 poliovirus, if it penetrates their borders, it will spread very quickly, just as it has in Africa. So, this is another big risk that can be justifiably laid at the door of Pakistan and Afghanistan.

The novel oral polio vaccine type 2 is a

cause of great optimism and seen as the cavalry riding to the rescue of the Polio Programme. Everyone must hope that it works as expected: that it leads the implementation of good quality campaigns to stop the outbreaks, that it does not seed new outbreaks, and that it does not have any unforeseen features. However, it is still going to take time to make a difference. To extinguish the fire raging in many African countries will not be easy because the poliovirus is spreading in many places.

If the vaccine is rolled out at the end of 2020 or early 2021, probably the whole of 2021 will be responding to these outbreaks, stopping them and not seeding new ones. That would be success. Continued use may be necessary until 2022.

The quality of outbreak responses is critical in achieving better outcomes. That applies with existing vaccine tools and operating procedures, but quality will be equally important in the deployment of the novel oral polio vaccine type 2.

With the prospect of larger scale outbreak

activities and more frequent responses, mediocre performance should not be acceptable. It will delay eradication and be a huge drain on money and staff time.

It is essential for the GPEI and the country teams to continue to think about how they are going to extract higher value from outbreak response activities.

Detailed attention must be given to the money, the staff numbers, and the surge capacity that goes into all outbreak responses. The option of co-delivering other health interventions and vaccines is difficult in an outbreak situation. This is especially so for the initial rounds of response, given the urgency required. Thinking and planning must also involve deploying inactivated polio vaccine to stop as much paralytic polio as possible in the affected geographies.

Initially, the use of the novel oral polio vaccine type 2 will be limited to a few countries only, where its use can be controlled. These are the conditions of

the Emergency Use Listing. Given the critical nature of compliance with the full monitoring arrangements, many polio-outbreak countries, will find it hard to make the full preparations speedily. So, as a result, the Polio Programme will not be able to fight all the outbreaks using the novel oral polio vaccine.

Another condition of early use of the novel oral polio vaccine is that campaigns using it can only take place in a country that has not deployed a Sabin oral polio vaccine type 2 (monovalent or trivalent) for at least 12 weeks. Many countries have already responded to the ongoing outbreak and so they will have to wait 12 weeks. That also applies to Afghanistan and Pakistan. The Polio Programme needs to address the consequences of this more fully.

Closure of outbreaks should be paired with actions to make sure that resources are also strengthening other immunisation activities at the country level, including surveillance.



GENDER STRATEGY

The GPEI partners began their work on gender in 2017. First, they produced the *Technical Brief: Gender*. This aimed to explore and analyse the gender aspects of delivering the Polio Programme's work. It sets out the case for using four gender sensitive indicators: a) the percentage of girls and boys vaccinated during campaigns; b) the percentage of zero-dose and three-plus dose girls and boys; c) the timeliness of surveillance for girls and boys; and d) the percentage of frontline workers who are women.

After publication of the Brief, a strategy was produced and approved by the GPEI Polio Oversight Board in May 2019.

The GPEI team has ensured that the strategy is aligned with the Immunization Agenda 2030 and provided strategic support to Gavi's gender policy. Much of this work focused on identifying the gender-related

barriers to vaccination and how to improve women's participation in decision-making and service delivery.

There are some immediate actions that can be taken towards gender parity, working on, and with, human resource policies, staffing targets and more equitable recruitment.

So far, the GPEI has developed a case for ensuring gender equality. It is taking the initial steps, producing the first action plans and committing to governance and reporting mechanisms. It is trying to avoid common pitfalls with gender strategies, especially at the country level.

The GPEI team sees many of the gender barriers facing the initiative as falling

outside their mandate, hence the need to be selective and prioritise. Across the immunisation community, all organisations are facing similar challenges in country level implementation.

At political level, three foreign ministers (from the United Kingdom, Australia, and Spain) have now announced their commitment as Gender Champions for polio eradication.

At the programmatic level, polio is one of the few global health programmes to have extensive, routinely collected data disaggregated by gender for every country. There is now a dashboard for age- and gender-disaggregated data. This facilitates enormously the monitoring of progress.





IMB ASSESSMENT

The IMB strongly supports the work that the GPEI is undertaking to advance the roles and needs of women through the Polio Programme, and in collaborative initiatives with partners and allied global health programmes.

The IMB has commented on policy and practice related to women in its previous reports, for example:

8th IMB report, 2013: A particularly neglected area is the potential benefit of gender-based strategies. The impact of fostering the nurturing instincts of women and the protective instincts of men could do much to break down barriers that are currently impeding vaccination of many children. This is all part of the ongoing quest to find new solutions to long-standing and recurring problems in areas affected by polio, particularly if [the programme shifts] the focus from providing information to generating demand.

13th IMB report, 2016: The WHO Eastern Mediterranean Office should appoint a senior female official to its Polio Programme team. She should be charged with rapidly strengthening the role and capacity of female workers in the successful delivery of polio immunisation (and in due course

routine immunisation). She should give immediate attention to removing the barriers to progress in Afghanistan.

14th IMB report, 2017: The IMB is disappointed that the Afghanistan Polio Programme could not make progress on extending the role of female vaccinators, given that this policy has been so successful in Pakistan.

15th IMB report, 2017: Initiatives to give more women the confidence to take on these roles would be particularly valuable. The supervisor roles are among the highest paid in the Polio Programme, so the leadership needs to be hard-nosed in ensuring that the very best people occupy these roles.

17th IMB report, 2019: The quality of implementation of the Afghanistan Polio Programme remains a major challenge, mainly in the southern region. This is not limited simply to restrictions in access but also there is interference by anti-government elements in the selection and management of the frontline workers and a low proportion of female volunteers in the vaccination teams.

The IMB was pleased to hear about practical, well-informed developments that are now taking place.

In the discussion at the IMB meeting, GPEI staff related what they had learned during a visit to Kandahar City last year, when pushing for more recruitment of female supervisors, frontline workers and managers. They learned that there were factors in addition to the well-known, conservative cultural and attitudinal barriers.

They found that some men in the programme were blocking the recruitment of women to work in the programme. A number of women's groups are active in Kandahar. So now, after some pushing, the numbers of female workers are increasing. A gender specialist has been recruited in Kandahar to help with this process.

In Pakistan, an anthropologist, who is a consultant with UNICEF is working in Pashtun-speaking communities to understand the matriarchal lines of decision-making about childcare and vaccine acceptance. This has the potential to explore a key area of the role of women in decision-making. Overall, given the slow speed of change, a much more assertive and performance-oriented approach is required.

In its 18th report, the IMB expressed concern about the outcome of a review which led to the Community Based Volunteer scheme in Pakistan being switched over to a



Special Mobile Team model of delivering polio vaccine. The Community Based Volunteers had initially been highly successful and were a majority female workforce that had gained acceptance in neighbourhoods previously hostile to the Polio Programme.

It seems that the outcome of the switchover was not deleterious to the programme's performance and has also retained much of the female workforce. UNICEF prepared the field for what was about to happen and worked very well with each of the staff. Most of the Community Based Volunteer staff were redeployed into Mobile Teams or Special Mobile Teams.



BUDGETARY SHORTFALLS AND BRIDGING THE GAP

In mid-2020, it became apparent that the GPEI would be facing a large budgetary shortfall (a deficit of nearly \$0.5 billion), as programme requirements grew beyond the level of planned resources. This was due to: eradication setbacks in the endemic countries; the spread and size of the outbreaks of vaccine-derived poliovirus; and the urgent need to replenish vaccines resulting from that.

The Polio Programme made initial proposals for a new 2021 budget. It was revised down with austerity measures to balance the deficit.

Cost-efficiencies were examined in areas such as joint programming and campaigns; detection and response; ways to stretch the vaccine supply; and more integration and alignment at policy level.

Substantial cuts were proposed in campaigns and in the GPEI presence in lower polio-risk countries. This also required more cost-sharing in endemic and outbreak areas.

In response to the GPEI management team's proposals, the Polio Oversight Board expressed reluctance to further financially burden countries while their health systems and economies were struggling with COVID-19. The GPEI was asked instead to seek additional resources, and also to economise and rationalise the programme without adding undue risk to eradication.

Generous funding promises were made at the Abu Dhabi Pledging Conference, on 19 November 2019. The arrival of the COVID-19 pandemic, only a few months later, meant that very few of those many pledges have been monetised. Sovereign donors are being pursued first to implement their pledges.

The Director-General of WHO and the Executive Director of UNICEF are sending letters to targeted sovereign donors. The GPEI's resource mobilisation focus is very heavily on this monetisation process.

A new stream of resource mobilisation work involves engagement with the multilateral development banks; they have approved

health financing packages at unprecedented levels.

As countries move towards, or plan, recovery from the pandemic, essential health services (such as immunisation) will be reactivated. The World Bank is being engaged to look at high-risk countries, to make sure that they have access to funds as they respond to outbreaks and help their immunisation systems to recover.

Then there is COVID-19-related resource

mobilisation. This is aimed at securing reimbursement of GPEI resources that were put at the disposal of the pandemic response.

A high-profile funding call to action has been issued. This is to alert the world of its public health duty to mitigate the threat of vaccine-preventable diseases in the wake of the pandemic, and to urge countries to invest in rebuilding their immunisation systems. For polio, this means about \$400 million to militate against the disrupted routine

immunisation and the interruption of campaigns.

This is the first time that the GPEI has undertaken a joint fundraising initiative with the measles programme. It provides an opportunity for donors to give targeted emergency support. It encourages countries to allocate funds that are available at country level. It is a call to action both to the affected countries, but also to immunisation partners, so that work is aligned to support the countries.

IMB ASSESSMENT

In the past, the Polio Programme has reduced its budget to the level of anticipated resources. That has meant that, on occasions, programmes of work and initiatives have been squeezed out of its plans.

In 2020, the GPEI Polio Oversight Board has directed that programme plans and aspirations should not be limited. Rather, the planning process has been based on the GPEI management team's judgement on what is necessary to succeed. This means that there are requirements in excess of anticipated resources. Going into 2021, the Polio Programme has bigger ambitions than the resources currently available.

The GPEI is looking at ways to shrink the programme without damaging its prospects of success. Reduction of preventive campaigns is being considered. These campaigns are in GPEI plans and budgets but may be deferred until later in the year

to see whether additional resources have been found to cover them. Vaccine supply is also being targeted for savings, through negotiating more favourable financing terms, allowing some payments to be pushed into future periods.

The prospect of major resource mobilisation on top of the Abu Dhabi meeting commitments (many of which have not yet been fulfilled) will be very difficult. Polio donor countries will have COVID-related pressures on their domestic economies that may constrain their overseas aid budgets.

Little attention has been given over the years to relating the performance of the polio-endemic and polio-affected countries to the levels of funding that they receive. In a harsher global economic climate and failure to hit polio eradication targets, it is likely that donors will wish to explore that territory more frequently.

STRATEGY AND GOVERNANCE

The GPEI Strategy Committee engaged a Seattle-based consultancy, Camber Collective, as an independent party. The mandate was to facilitate the exploration of new challenges facing the GPEI and provide an opportunity for GPEI partners and broader stakeholders to collectively identify remaining obstacles to eradication, and the optimal solutions to surmount them. The process also set out to develop relationships of trust among key internal and external stakeholders, and to manage initial stakeholder inputs into the new strategy.

The work started in July 2020 and will ensure that, by December 2020, the headlines of a new strategy, reflective of internal and external stakeholders' highest priorities, will

be presented to the GPEI Polio Oversight Board.

The process has involved a series of bilateral conversations – primarily with members of the GPEI Strategy Committee, each agency's selected engagement lead, and a subset of major donors – to understand where stakeholders have consensus and where opinions diverge on key issues and problem statements. This initial phase of work was followed by guided discussions in sets of workshops.

The governance review carried out by the GPEI Strategy Committee and published in June 2020 has not yet been implemented.





IMB ASSESSMENT

The polio donors pushed heavily for the governance review. They demanded action at the November 2019 GPEI Polio Oversight Board. The report of the governance review went to the GPEI Strategy Committee. At its meeting with the IMB, donors said that they had asked the GPEI Strategy Committee why there been no movement on the recommendations but got the impression that they are not a high priority for the GPEI.

In the work on the new strategy, the external stakeholders have welcomed their involvement and applauded the GPEI for reaching out and having so many people involved. Concerns have been expressed, though, that, those around the table are still just the GPEI partners, with the donors “thrown in”.

So, although there is an external voice, they are not seeing the transformative thinking that they had hoped the process would bring. They comment that the spearheading partners are dominant in the processes that frame the consideration of the topics. However, there is an external stakeholder group made up of about 30 people who will “pressure test” the solutions coming out of the working groups.

These review processes on governance and a new strategy are important. They should be a step on the critical path to eradication but, at this point in the work, it is difficult to judge their direct value to this. They should certainly serve to maintain the support of donors. They should also be a means to strengthen the solidarity of the polio partnership.

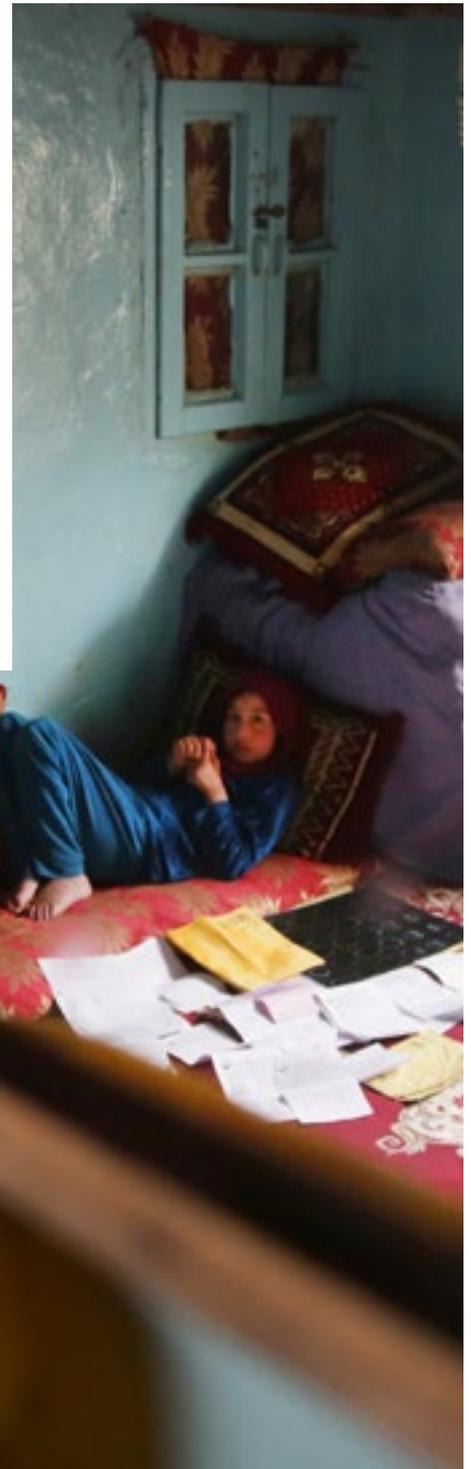
The GPEI Strategy Committee seems reluctant to implement the governance changes and is giving the impression that ultimately the output of the strategy discussions will go back to the same Strategy Committee to be written up into the official document.

The GPEI is aware that polio eradication is no longer just around the corner. Even optimists speak of two or three years before the two types of poliovirus can be stopped. This means that the leadership of the GPEI has to carry the polio family with them through some difficult times. Ongoing pandemic disease and the need for equitable distribution of a pandemic vaccine will add complexity and unpredictability to their work. Those outside the core membership of the GPEI must feel part of the team and not that they are “bit players”.

PAKISTAN

The Pakistan Federal Health Minister (formal title: Special Assistant to the Prime Minister on Health), Dr Zafar Mirza, left his post after having attended the 18th IMB meeting in July 2020, but before the IMB's report of that meeting had been finalised and published. He had been in post for around a year.

The IMB welcomed Dr Mirza's successor, Dr Faisal Sultan, appointed in August 2020, to the 19th IMB meeting to represent the Pakistan government. Dr Sultan is the Special Assistant to the Prime Minister on Health, a post that also has the status of Federal Minister. He is a medically qualified infectious disease specialist and prior to his appointment was the chief executive officer of a major cancer hospital and research centre in Pakistan. He also served as the Prime Minister's Focal Person on COVID-19.



THE PAKISTAN GOVERNMENT'S POSITION

As he came to the first meeting of the IMB in his new role, Dr Faisal Sultan made a very strong statement of commitment, both personal as well as professional, and reaffirmed that the country's government "will not be found lacking" on polio eradication. He said that this will be demonstrated in a greatly improved performance in the weeks and months ahead. He told the IMB that he was confident that there is good support from all the chief ministers and the political leadership in the provinces; in his view, there is no dearth of commitment there either.

He has established a national support unit to advise him on polio-related matters.

Like other countries, Pakistan experienced disruption and constraints on the operation of primary and community health services due to the COVID-19 pandemic. In the beginning, because of a very broad, across the board, attempt at lockdown, there was a profound impact on essential health services delivery, including preventive services, essential immunisation and polio activities.

Dr Sultan explained to the IMB that a coherent national strategy helped the country to get out of the first wave of COVID-19 effectively. They were able to leverage polio infrastructure to help gather the data and to analyse the pandemic's trajectory. The whole polio team was marshalled into the COVID-19 effort, including down to the database that used the polio model. Other polio resources, like the helpline, were also brought into play and have provided COVID-19 information to the public. Those who went door to door as vaccinators were redeployed to fight the pandemic.

Dr Sultan reflected that if the polio machinery could help with controlling a novel disease that was uncharted territory, it was somewhat mysterious to him that the same vehicle has not eliminated polio by now.

At the time of the IMB meeting, Pakistan had entered into its second wave of COVID-19. The government says that it has learned the lessons from the first wave and intends to do everything possible to ensure that health services, especially the delivery of preventive services, do not suffer the scale of disruption that they did in the first wave of COVID-19.

The Pakistan polio resumption plan, as endorsed by the Technical Advisory Group, has successfully done multiple polio immunisation campaigns targeting both the wild and the vaccine-derived polioviruses since July 2020. The government is confident that this will have a positive impact on the epidemiology of both polioviruses. Its aim is to have the circulating vaccine-derived polio outbreak over by the first or second quarter of 2021, and significantly limit the scope of the wild poliovirus transmission by the end of 2021.

Dr Sultan feels that a coherent national response on polio holds exactly the same potential as it did for COVID-19, and not just limited to the security of the country's polio teams. He and his team have looked at their strategies. They have started focusing on building sustained alliances with communities. They have engaged political, religious and tribal leaders through this whole process to ensure there can be a continuous programme during 2021. They have recognised that Pashtun communities, in all locations, hold the key for ending polio in Pakistan. They agree that the issue of reaching or not reaching them is complex and often local.

The strategic goals are to interrupt transmission of the type 2 vaccine-derived poliovirus in the first part of 2021 and interrupt transmission of the type 1 wild poliovirus by the end of 2021.

THE PROVINCIAL GOVERNMENTS' POSITIONS

Sindh was the province most affected by COVID-19 in the whole of the country. Essential immunisations suffered (coverage falling to 20%), the polio campaign suffered, so too did other preventive health services. There was a big fear factor in communities.

At the time of the IMB meeting, the second wave of COVID-19 was underway. The provincial team thought it would be worse than the first wave.

Despite this, the Health Minister for Sindh, Dr Azra Pechuho, told the IMB that the essential services of routine immunisation and polio campaigns would continue. Sindh got polio activities back on track, with a small-scale campaign in Karachi in July 2020, followed by regular campaigns in August, September and October 2020. Very strict COVID-19 protocols were followed.

The IMB was informed that, in October 2020, Sindh achieved 97% coverage overall, with 93% in Karachi. However, the level of refusals still raises concern. In the August 2020 campaign, there were 120,000 refusals in Karachi, although reducing to 102,000 in September and 82,000 in October.

The health minister reassured the IMB of the provincial government's strong political commitment to polio eradication. A great deal of work to address refusals has concentrated on extensive community involvement. Focused campaigns in high-risk districts have addressed deficiencies in immunisation coverage, as well as refusals and missed children.

There have been improvements. Qambar and Dâdu, two places that have always shown positive environmental samples, have become negative. There is optimism that Hyderabad and Karachi will follow suit.

The provincial health team is forging alliances on polio with major political leaders and macro-level influencers across political parties, with a specific focus on active involvement of Pashtun influencers. Political and tribal leaders have been mapped and engaged and are now supporting polio campaigns.

A memorandum of understanding has been signed with the Islamic Medical Association, which is now actively highlighting the importance of immunisation and dispelling myths and rumours in the community about polio vaccine.



A coalition with industrial associations and the corporate sector is in place. The health minister believes that the media environment, too, is now supporting the polio eradication cause.

Meanwhile, to create an enabling environment, the Sindh government, with the help of partners, has initiated and is expanding an integrated service delivery package for the super-high-risk union councils of Karachi, which includes experimental dispensaries, mother and child health care centres and model immunisation centres. These initiatives seek to serve better the populations that are struggling to meet basic health needs.

Punjab found new cases of wild poliovirus in nine divisions in 2020, and vaccine-derived poliovirus in Faisalabad. After interrupting polio vaccination campaigns because of COVID-19 on 13 March 2020, the Punjab Polio Programme has been able to resume with two campaigns against wild poliovirus and against vaccine-derived poliovirus.

The Punjab Health Minister, Dr Yasmin Rashid, assured the IMB that the government of Punjab is committed to polio eradication in the province and has provided personal protective equipment to all polio teams, so that people understand that it is extremely important that polio activities will continue, with proper COVID-19 precautions.

The health minister told the IMB about programmatic improvements. As a result of the continuous detection of wild poliovirus in Lahore and Dera Ghazi Khan, and its intermittent detection in south Punjab, these areas have been targeted to improve the quality of campaigns; micro-plans have been strengthened and there is now better intra-campaign monitoring.

The health minister put the poor performance down to the large number of vacancies which she said were being filled very vigorously. Gaps identified at the international borders in several Pakistan districts have been addressed, and vaccination of “still missed” children has been improved by increasing same-day and catch-up day coverage.

Nine health camps were held in 2020, and 31 are planned by 31 March 2021 in eight districts, including Lahore, Rawalpindi and Dera Ghazi Khan.



The health minister also told the IMB that work is underway to strengthen the provinces' essential immunisation performance. This involves ensuring a complete record of all children who have received their polio vaccination. All public sector hospitals have been instructed only to issue birth registration if immunisation has been carried out. No child can now get a birth certificate until they receive their polio zero dose, and this enables subsequent follow-up through vaccination cards.



Baluchistan has seen more wild poliovirus cases and more of its districts infected than in 2019. It also faces the challenge of vaccine-derived poliovirus. The health minister and secretary of the province could not attend the IMB meeting, so it was not possible for the IMB to get a clear idea of the quality of political leadership or the strength of commitment to eradicating polio in this province, compared to the others.

A technical team walked the IMB through its self-assessment of their programme.

Immunisation campaigns have been resumed after the COVID-19 interruption. The IMB was told that the outcome of each campaign, in numbers of children vaccinated, varied from place to place, but in the last two campaigns 95% coverage was achieved across all of Baluchistan.

The introduction of trivalent oral polio vaccine is expected to reduce type 2 vaccine-derived poliovirus. Essential immunisation performance has stalled at around 58%, well below the desired outcome of 80%, which is set for Baluchistan.

Khyber Pakhtunkhwa has resumed polio activities following the COVID-19 suspension. The health minister, Taimur Jhagra, told the IMB that his focus was on the end goal, rather than seeking mere incremental progress from campaign to campaign. He referred to an undesirable pattern of going "one step forward, and one step back" the whole time.

He drew the IMB's attention to three "good signs." First is the activity resumption across the province. The second is that cases are coming down, based on current data, and reducing relative to the rest of the country. The third is an improving picture on the environmental samples.

The health minister spoke of the importance of the "health ecosystem,"





pointing to the work that his team had done to improve essential immunisation. Coverage levels were at about 50%, and, with what the health minister called “laser-like focus,” they have increased to 85% and been sustained at that level. That shift came in a period of just two to three months between June and September 2020.

He also pointed to the recent passage of legislation for universal health insurance. This is a one million rupee a year package covering all secondary and tertiary care for domicile holders of the province wherever they reside in the country (e.g. most Pashtuns in Karachi will also be covered).



The minister told the IMB that, when he last reviewed the database of the Polio Programme, he saw something like 500 indicators. Not all can be equally important, so he aims to simplify what people need to look at and determine what the 15–20 indicators are that are really going to be a measure of success. This is a very positive move.



Another potentially beneficial change is the human resources reform that the minister spoke of as being necessary at the previous IMB meeting. He told the IMB that district leadership will stay longer in post and be more directly accountable for the Polio Programme. That is apparently work in progress, but the minister felt that if it is “cracked,” then it will make a transformational impact on how polio is dealt with.



IMB ASSESSMENT

The IMB has noted that the resurgence of wild poliovirus cases in Pakistan began in the second half of 2018 and peaked in late 2019. It started to decline in early 2020 and then plateaued.

At the time of the IMB meeting, the number of cases was similar to the same time of year in 2019, but the detection of wild poliovirus in environmental samples was higher in 2020 (60%) than in 2019 (47%). Environmental surveillance is an indicator of widespread infection with wild poliovirus.

The vaccine-derived poliovirus emergence and outbreak was initially identified in mid-2019 in the northern Gilgit-Baltistan province of Pakistan. It immediately spread to adjoining areas of northern and eastern Khyber Pakhtunkhwa, then into the



more densely settled areas of the Peshawar valley districts and to southern Khyber Pakhtunkhwa.

Parts of northern Punjab (Rawalpindi and Gujranwala) were affected by early spread, and positive environmental samples were detected in August 2019. The bulk of the spread and incidence of cases has occurred in early to mid-2020 in central and southern Punjab and cases have continued to occur through October 2020.

A few sporadic vaccine-derived poliovirus environmental isolates were detected in Karachi and at a site in northern Sindh during late 2019. The increase in frequency of positive environmental samples was followed by detection of cases during the second and third quarters of 2020. Most cases were in Karachi, with only a few in north and central Sindh.

These trends mask important epidemiologic shifts in Pakistan's provinces.

The outbreak of wild poliovirus cases began in southern Khyber Pakhtunkhwa Province in April 2019 and continued unabated until early 2020. It was the major source of spread to the rest of the country. In the six months prior to the IMB meeting, 19 of the 29 cases were in southern Punjab and the Quetta Block. Only two cases in this period had been reported from Khyber Pakhtunkhwa and three from Sindh.

The increases in the proportion of wild poliovirus positive environmental samples in 2020 compared with 2019 have been much greater in Punjab and in Baluchistan than in other provinces.

During 2019–2020, the bulk of cross-border transmission has occurred across the southern region of Afghanistan and the Quetta Block. Cross-border transmission of the southern Khyber Pakhtunkhwa outbreak also continued across southern Khyber Pakhtunkhwa and the south-east region of Afghanistan. There has been much less

transmission, particularly in 2020, across the Peshawar/Khyber corridor and the eastern region of Afghanistan.

Outbreak response campaigns to combat vaccine-derived poliovirus were implemented across different epidemiologic zones from November 2019 through to March 2020.

Following a pause of four months due to the coronavirus pandemic, large-scale vaccination campaigns have been conducted across the country during August and October 2020. They have tried to deal with new outbreak areas and areas considered at risk of further spread or breakthrough transmission.

Overall, the trend indicates that in districts where two or more rounds were delivered either with monovalent type 2 or trivalent oral polio vaccine, there has been no sustained breakthrough transmission. However, a few districts did have breakthrough transmission during the pre-pandemic phase.



KEY PROVINCES

After considering the status of the four key provinces, the IMB sets out its core observations and concerns.

The **Sindh** province was heavily infected by the spread of the polio outbreak from southern Khyber Pakhtunkhwa. From Sindh's only reported polio case in 2018, together with a few environmental positives from sites in Karachi and northern Sindh, it was plunged into wild poliovirus outbreaks, affecting both central and northern Sindh in 2019. This peaked in December 2019 but continued as a mainly northern Sindh outbreak in 2020.

Outbreaks in central Pakistan (that includes northern Sindh, southern Punjab and adjoining districts of Baluchistan) have been stopped in the past by well-coordinated and intensive outbreak responses. However, gains are seldom sustained in these areas, which are difficult to operate in.

Parts of Karachi remain persistent hotbeds of polio. These areas are populated by migrant Pashtun communities from tribal districts of Khyber Pakhtunkhwa and Baluchistan. Refusals and vaccine avoidance behaviour are common. As was clear from the provincial team's report at the IMB meeting, this results in many missed children.

The IMB was pleased to hear about the changes in delivery structure, performance management, staffing, integrated service provision and implementation of a Pashtun engagement strategy. These are absolutely vital in the super-high-risk union councils. Only then will the quality and coverage of polio campaigns improve.

If the IMB is to be convinced of the Sindh programme's capability to eradicate polio, it must demonstrate improvement quickly, with visible and incontrovertible evidence.



Potentially transformative actions aimed at winning over disaffected and mistrustful communities, together with building a coalition of powerful will among political and civil society groups, must be rigorously pursued with determination on a daily basis, not just intermittently.

Punjab had remained free of sustained wild poliovirus transmission for more than two years, until mid-2018. Lahore has become the epicentre of this transmission, with continuous detection of positive environmental samples and periodic incidence of polio cases. The suboptimal quality of campaigns in parts of Lahore, many with migrant Pashtun communities, is



largely responsible. It puts Lahore at risk of becoming an endemic reservoir like other provincial capitals that re-infect other parts of the country.

There is ongoing wild poliovirus transmission in southern Punjab as part of the central Pakistan outbreak, with most cases contributed by Punjab during the last six months. Well-coordinated and intensive response vaccination campaigns are usually effective in stopping these outbreaks. However, the provincial Polio Programme needs to give particular attention to sustaining quality in districts with weaker health systems.

In **Baluchistan**, wild poliovirus transmission was re-established during May 2019 in the renowned polio hotspots within the Quetta Block comprising parts of Quetta City, Chaman tehsil (the second-largest city in the Pashtun majority north of Baluchistan) in the district of Killa Abdullah and Pishin district.

The Quetta Block is a high-risk contributor to the southern cross-border poliovirus corridor to the southern region of Afghanistan. With reinfection of districts in northern Sindh, the adjoining districts of Baluchistan are also affected by contiguous spread. The only reason why there is no continuous poliovirus transmission in interior Baluchistan is due to its sparse population.

The provincial government has found no comprehensive solution to long-standing problems associated with persistent or repeated poliovirus infection.

Why are there gaps in polio campaign quality in Quetta City, with its known pockets of vaccine refusal?

Why is there an inability to control known local elements that manipulate the security situation in Killa Abdullah?

What is being done to address poliovirus carriage because of the intimate links of Chaman tehsil and other parts of Killa Abdullah with populations in the Helmand river basin in Afghanistan (some allegedly involved in illegal cross-border trade)?

Why is vaccination of the large numbers of children that cross the Chaman border daily not being carried out to a higher standard?

Why are international staff unable to move and monitor programme implementation?

Some of the factions that discourage communities from accepting the polio vaccine are rumoured to have political patronage locally. Unless something is



done about this, poliovirus will continue to circulate in these areas.

These are huge questions to which the IMB has heard no convincing answers. The IMB considers the jury to be out on whether the political leadership and technical programme capability has the quality to deal with the complexities of the polio context of their province and come out on top.

In **Khyber Pakhtunkhwa**, the intense outbreak of wild poliovirus centred around Bannu and Lakki, in the southern part of the province, had abated by the time of the IMB meeting, with only one case reported since April 2020. During the last six months, the only other case reported from the entire province was from Peshawar, with onset in July 2020.

This reduction of transmission in the core reservoir areas of Peshawar and Khyber through 2019 and 2020 is reflected both in polio cases and environmental samples (although, after several clear months, environmental samples collected from a site in Peshawar have been positive again since July 2020).

This can be regarded as improved performance by the provincial programme in these districts, despite the disruptions caused by the “Peshawar incident” in April 2019 (described in the 18th IMB report).

The improvement is striking but can it be sustained? It must be if polio is to be

banished from this reservoir. It will not be if history is allowed to repeat itself.

In the past, wild poliovirus has always found its way back to the south of the province, centring around Bannu and Lakki and adjoining tribal districts.

The government of Khyber Pakhtunkhwa must take concerted political, administrative and community-oriented actions to address long-standing programmatic weaknesses and vulnerabilities in the south of the province.

This means providing essential public services and putting a stop to the activities of factions looking to use population access to polio vaccine as a bargaining tool. The social engagement of communities is vital. It is essential to involve locally respected community members, influencers, and tribal leaders, as well as political and government administrative leaders; they too must be mobilised. The programme will need to tailor the “Pashtun strategy” to the local context.

On top of these important potentially transformative actions, the challenge of missed children due to refusals and hostility has not been definitively solved, even though reports of fake finger marking have declined.

Finally, the health minister does not sit on the province’s taskforce on polio. This does not make sense and should be remedied at once.

NATIONAL GOVERNMENT LEADERSHIP AND MANAGEMENT

Immediately after his appointment in June of 2019, the previous Special Health Adviser to the Prime Minister, Dr Mirza, announced the establishment of a high-level National Strategic Advisory Group as part of a transformation agenda for polio and essential immunisation in the country.

The rationale for developing this national all-party group was to help achieve political consensus for polio eradication, and to make the process and solidarity visible to the Pakistan people. It would also provide a visible means of accountability, if political promises were broken.

The National Strategic Advisory Group never met. In its 18th report, the IMB pointed to the importance of all-party support for polio eradication and recommended that it should be convened and meet regularly.

The Group has not been reinstated in the national polio governance structure. It seems that the idea of having such a group has been dropped entirely. The thinking

is apparently that, because of the coming together of political groups in response to the threat posed by COVID-19, positive political unanimity will be the new attitude to polio also.

The IMB was very impressed by the new Special Health Adviser to the Prime Minister. He is an experienced medical professional, a former chief executive officer and extremely close to the Prime Minister. He is therefore well positioned and qualified to lead the national response to polio.

The support unit set up by the new Special Health Adviser to the Prime Minister to report to him directly appears to be quite technically oriented. The national taskforce meetings have not been taking place regularly. This feels like an important missing ingredient in the Pakistan Polio Programme. The provincial taskforce meetings, when they have taken place, are seen, by those familiar with their way of working, to be too much of a “box ticking” exercise and do not create enough meaningful engagement.





WITHOUT STRONG NATIONAL-PROVINCIAL TEAMWORK, IN PAKISTAN, BARRIERS TO POLIO ERADICATION WILL ENDURE; EFFECTIVE NATIONAL LEADERSHIP MUST INVOLVE ACTUAL VISITS TO THE PROVINCES AS WELL AS VIDEOCONFERENCING



It is important that Special Health Adviser to the Prime Minister has the space to fully understand the complex context of polio in Pakistan; if he is to succeed, it is vital for him to be clear why the country has repeatedly failed to eradicate the disease, and why it is not enough to see it through an infectious disease technical lens.

Crucially, coming new to the polio field, exploring and fully understanding the political and social dynamics of the programme at the provincial level is an essential first step.

The head of the national Emergency Operations Centre in Pakistan, Dr Rana Safdar, has been given full responsibility for the essential immunisation programme, as well as polio eradication. In addition, he oversees all the COVID-19 data management for the entire country. Taken together, this is a huge burden of work.

Looked at through a polio lens, it is vital that the national Emergency Operations Centre leader has close and day-to-day contact with his counterparts at provincial level. This is not just a matter of quick progress checking. The provincial Emergency Operations Centre teams will need regular guidance, encouragement and sometimes troubleshooting support.

The IMB remains concerned that the new Special Health Adviser to the Prime Minister and the Head of the national Emergency Operations Centre have very heavy workloads.

Without strong national-provincial teamwork, barriers to eradication will endure. This effective leadership role can only work if there are actual visits to the provinces as well as regular discussions through videoconferencing. Where their counterparts at provincial level feel themselves disempowered by local political factors, they need to be able to speak confidentially at short notice at the top federal level to ask for help. It will be essential to provide additional and highly functional staff to support these key individuals.

It is striking that in a global effort costing more than \$1 billion a year and involving work of health workers in very many countries, there is any delay or hesitancy in providing a robust team and full support for the leadership of the programme.

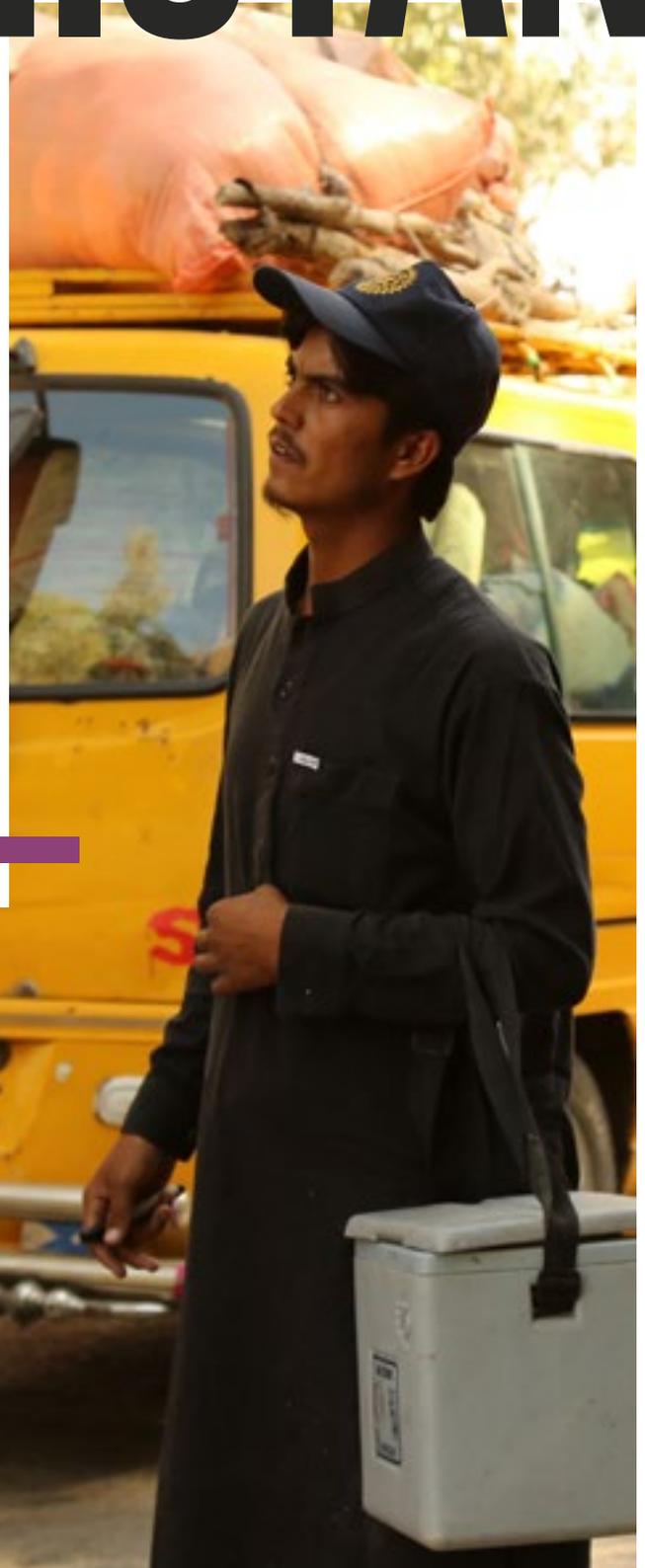
This means that the new Special Health Adviser to the Prime Minister and the Head of the National Emergency Operations Centre must create the time, space and staffing structure to maintain an unrelenting focus on polio.

AFGHANISTAN

The acting Minister of Public Health of Afghanistan, Dr Ahmad Jawad Osmani, and his team attended the IMB meeting.

The acting Minister reminded the IMB that Afghanistan is facing a triple challenge: a) viruses in the form of two poliovirus outbreaks and the COVID-19 pandemic; b) a volatile security situation, which has further degraded over the past year; and c) a Taliban imposed ban on house-to-house polio vaccination since May 2018, resulting in as many as 2.5 million children being missed in some campaigns.

There has been a deterioration of population immunity, with accumulation of susceptible children in the target age group in the country.



THE AFGHANISTAN GOVERNMENT'S POSITION

The acting Minister expressed his concern about the six months of loss of national-level vaccination campaigns in 2020 due to the COVID-19 cessation of activities. This caused further spread of the poliovirus, notably to previously polio-free provinces.

The coverage of routine immunisation still remains very low in polio-endemic provinces. Immunisation coverage declined by 20% during the peak of the COVID-19 pandemic. The acting Minister attributes this mainly to poor access and under-utilisation of basic health services. This is partly related to continuous insecurity and active fighting, but also in part due to lack of a proper planning and resource distribution in those provinces.

All Emergency Operations Centres, including their facilities at national and regional levels, were mobilised as coordination platforms for a national response to COVID-19 in the central, east, south and west regions. Large numbers of frontline workers and health care providers were infected with the pandemic coronavirus. This had a major impact on health service delivery.

The country could not immediately respond to the first outbreak of vaccine-derived poliovirus in the east region. This was because of the four-month pause in the vaccination campaigns due to the peak of COVID-19. However, poliovirus in the north and north-east regions did not survive once the campaigns resumed.

The acting Minister reflected on the impact of the vaccine-derived poliovirus outbreak in his country. It started in December 2019 and was first detected in environmental samples in the east region of Afghanistan, tied genetically to a virus strain from Pakistan.

The first polio case was confirmed in February 2020 and, by the time of the IMB meeting, there had been 136 type 2 vaccine-derived poliovirus cases throughout the country, affecting 20 provinces. The acting Minister remarked that: "The new outbreak has spread like wildfire and doubled the programme's operational workload by having to respond to outbreaks of two types of poliovirus."

There was the need for a careful assessment, targeting high-risk provinces. The programme considered the risk of seeding infection associated with oral polio vaccine type 2, as well as vaccine availability in the global stockpile.





Polio campaigns were resumed throughout June to September 2020 in the east, central and north-east regions using monovalent oral polio vaccine type 2 in response to the vaccine-derived poliovirus outbreak. Two vaccination rounds in June 2020, managed to successfully interrupt vaccine-derived poliovirus transmission in the east region.

The Afghanistan government obtained around 12 million doses of trivalent oral polio vaccine in mid-October 2020 and immediately conducted one round with it. The next round was due in late November 2020. This will help plug the immunity gaps throughout the accessible areas against type 2 poliovirus; however, the acting Minister did not hide his worries about the 41 inaccessible districts where the teams cannot respond to either of the polio outbreaks.

The country wants to use novel oral polio vaccine type

2 in early 2021, subject to its availability and their ability to comply with regulations on use. The acting Minister expects (via discussions with Gavi) to introduce a second dose of inactivated polio vaccine into the country's routine immunisation system by January 2021.

On the wild poliovirus front, at the time of the IMB meeting, in mid-November 2020, there had been just under double the number of cases compared to the whole of 2019. Overall, 75% of these cases were in the inaccessible areas where house-to-house vaccination campaigns have been banned since May 2018.

The acting Minister reaffirmed that polio eradication is still a high priority for the government, but he acknowledged that the offer of drops of polio vaccine alone is not enough anymore to engage communities. He sees the path to eradication as through provision of

integrated health services, and the supply of clean drinking-water, health education, sanitation, and treatment of malnutrition. These deficits have only been addressed on a small scale to date by the polio partners and the government.

The acting Minister's team explained that the increase in refusals in September 2020 was for several reasons.

Firstly, because of COVID-19-related community fears, especially in cities like Kandahar.

Secondly, in order to limit the risk of COVID-19 infection, there was no catch-up round in September 2020.

Thirdly, even in some accessible areas, refusals reflect the influence of the Taliban. They are not only banning campaigns in the areas that they control. They are also sending messages to their followers in big cities like Kandahar, Kabul,

and Jalalabad to tell them not to accept vaccination until they have reached a deal in international negotiations.

To address these challenges, the Ministry of Public Health recently designed the Afghanistan Health Transformation Program. This initiative is about broader health system strengthening measures, not just polio. The acting Minister set out for the IMB some key strategies that will be applied to accelerate polio eradication:

- Enhance and strengthen routine immunisation as backbone of the Program.
- Strengthen coordination and collaboration and gradual integration of polio eradication and essential immunisation programmes for the efficient and effective use of funds and implementation.
- Enhance Ministry of Public Health capacity in local production of vaccines and diagnostic facilities.
- Promote an integrated approach to health service delivery in the insecure and polio-endemic areas.
- Active monitoring and evaluation of the Program by Ministry central and provincial teams.
- Define the clear, accountable and transparent role of each partner for effective and efficient Program management.
- Enhance the ownership of the Ministry of Public Health, NGOs and communities by real engagement of all partners, including private health care providers.
- Strengthen cross-border coordination and collaboration activities between Afghanistan and Pakistan.
- Third party annual evaluation and payment system for performance.





The acting Minister reacted to the criticism – in the last IMB report – of the absence of a “Plan B” for the inaccessible areas of the country. The IMB has repeatedly pointed out that the Polio Programme pins its hopes on a negotiated end to the two-year-long Taliban ban, with no fallback or interim solution.

The acting Minister offered some immediate and long-term interventions in execution of a “Plan B” as follows:

1. Multi-antigen campaigns in the south region (Kandahar: four rounds completed in eight out of 18 districts in 2019; Uruzgan first round completed in January 2020, and a second round is ongoing; Zabul first round completed in October 2020).
2. Resumption of complementary immunisation activities (permanent transit teams and cross-border teams) has already been implemented.
3. Further acute flaccid paralysis surveillance enhancement, building on good improvements seen recently.
4. Vaccinating inaccessible children through expanded outreach by over 1,200 new outreach vaccinators in 14 polio very high-risk districts.
5. Expanding implementation of the Integrated Service Plan to boost immunity, including establishing an additional 150 new Basic Package of Health Services-plus health facilities, investing on building the capacity of existing health facilities, and adding “pluses” to them while improving integrated service outreach and community engagement.
6. Surge support for the whole health system (Basic Package of Health Services, Essential Package of Hospital Services, and the private sector) by adjusting oral polio vaccine routine targets from under one-year-old to under five-year-old children.
7. Administration of oral polio vaccine to under five-year-old children in all private health sector facilities.

IMB ASSESSMENT

Severe lack of access to bring the oral polio vaccine to children in Afghanistan has now prevailed for almost two years. Around one million children in the south region are not being vaccinated against polio. The post-COVID-19 campaign, in October 2020, missed 2.5 million children in 41 districts.

The team covering the **east region** of Afghanistan have managed wild poliovirus transmission quite well compared to other parts of the country.

There has been sporadic cross-border transmission, often with long chain or orphan polioviruses, and the region has reduced transmission. It is a strong programme, has strong coordination, and is managing to do good work, despite some inaccessible pockets in the region.

The east was also the region to be first hit by type 2 vaccine-derived poliovirus which came over from Pakistan. This led to an explosive outbreak that could not be combated by vaccination because of COVID-19-related suspension of operations. However, on resumption of campaigns, there was a very robust response, and, at the time of the IMB meeting, there had been no breakthrough transmission.

In the **south region** of Afghanistan, wild poliovirus transmission has been expanding across accessible and inaccessible areas. Vaccine-derived poliovirus is increasing there. A further outbreak is also likely to be explosive. Routine immunisation services in the south are poor and there is no type 2 poliovirus immunity to protect children.

Campaign quality and vaccine acceptance levels are a great concern in the accessible areas of the south, particularly so in Kandahar City. This city is accessible for everyone, for monitoring, and indeed for all polio-related activities, but it seems that the polio programme in Afghanistan is incapable of solving the problems. A large number of

the inaccessible children, currently around one million, are in the south region, mainly in the northern part of Kandahar, in Helmand, and in Uruzgan.

In the **south-east region** of Afghanistan, there is repeated cross-border transmission from Pakistan. An expanded type 2 vaccine-derived poliovirus outbreak was ongoing at the time of the IMB meeting.

There is a high number of vaccine refusals in populations in the south-east, especially along the border. There are some access problems but the team in the south-east has been successful getting access through local negotiation.

The United Nations partners have been trying to open access for the Polio Programme in Afghanistan, but largely to no avail. Internationally led negotiations have so far produced few substantive benefits for the Polio Programme.

The government team points to the success of local negotiations and argues that this lower-key approach has the potential to lead to more sustainable improvements in access. Talks with community leaders, community elders, and anti-government elements in some inaccessible areas, have been tested and piloted. At the time of the IMB meeting, this had led to complete access in Uruzgan for a multi-antigen campaign.

One suggestion made during discussion at the IMB meeting is to pursue methods to allow the Taliban to fully control and conduct the polio immunisation within their own areas. Seemingly, this approach worked in Angola 20 years ago when a third of the country was held by forces opposed to the official government. They were able to interrupt the transmission of poliovirus in their area of the country. This is an interesting idea, perhaps one to be borne in mind if there is no agreement on a solution for the governance of the country.



“
THE POST-COVID-19
CAMPAIGN, IN OCTOBER
2020, MISSED 2.5
MILLION CHILDREN IN
41 DISTRICTS

As discussed in detail in the 18th IMB report, most of the health system in Afghanistan is coordinated by the World Bank, through the Sehatmandi programme, and delivered by NGOs.

The donors who contribute funding to this national health delivery system have tried for some time to influence how the World Bank is implementing Sehatmandi (a fuller description of how this provides health services in Afghanistan can be found in the 18th IMB report). In particular, they have tried to strengthen the terms of the



agreements with the NGOs. This has never got very far. Nobody has been able to hold Sehatmandi's service provider, and the NGOs, accountable for the low coverage of routine immunisation, especially in the south region.

Notwithstanding the deployment by NGOs of the oral polio vaccine itself, routine immunisation is the backbone of eradication and the endgame strategy. If there is no way to reach an optimal level of coverage, with the NGOs' lack of accountability, there will be no end to polio.

There are good signs that NGOs funded by the Bill & Melinda Gates Foundation are making progress and are claimed by some to be "outperforming Sehatmandi". Also, social mobilisers, recruited in the NGO health facilities through the funding of UNICEF, have immunised almost 170,000 children, on average, per month.

When the age target was increased in October 2020, the NGOs, were immunising, on average, around 300,000 children each month in the south and east regions without charging. Similarly, some observers have pointed out that NGOs in the Kandahar Province (a hotspot for polio) are performing well.

Generally, there is a more positive view emerging of the potential for NGOs to be effective against polio as part of integrated programme delivery within inaccessible areas of Afghanistan. The difficulty is being able to reach the scale required quickly. This comes back to making the Sehatmandi scheme work properly and be more accountable.

The IMB encourages the World Bank to engage in resolving these problems. Their team in Kabul has already met the Ministry of Public Health in Afghanistan on the issue of polio eradication. This is in the context of the Bank's financing in Afghanistan and expansion of results-based financing for basic health services.

Seventy-four per cent of the country's population live in areas accessible for house-to-house vaccination. There is no excuse for having gaps in programmatic quality in these areas. The 74% of under five-year-olds needs to be protected from the polioviruses that keep coming into these areas.

IMB sources report that one of the reasons for campaign quality being substandard is interference in selection of frontline workers, who, too often, are not appointed on merit.

Aside from resolving the problems of access in Afghanistan, the IMB is greatly concerned about dysfunctional teamwork within and between the government organisation and the two United Nations agencies.

This is not the first time that the IMB has expressed such concerns:





12th IMB report, 2015: The GPEI partners and the government of Afghanistan should rapidly review and redesign leadership, accountability and coordination arrangements for the Polio Programme.

The acting Minister of Health in Afghanistan is still relatively new. There is also a new Senior Adviser to the Minister of Health who is also the National Polio Focal Person. He reports to the Minister of Health. The coordination platform that the national Emergency Operations Centre should be providing is repeatedly described by those with a good understanding of the Polio Programme in Afghanistan as “extremely weak”.

There are unclear terms of reference, overlapping roles and responsibilities at the “top of the office.” Decision-making processes are slow and coordination among the key stakeholders at national level is very fragile.

So, while there is dysfunction and a lack of clarity in the government’s polio leadership team, there are also serious problems in working relationships afflicting the two United Nations agencies.

The GPEI leadership told the IMB that the WHO and UNICEF teams in Afghanistan do not work well together. Apparently, this is widely known. There are both personality tensions and strategic tensions causing a wide schism in the relationship. These have been evident to others, for example witnessed in meetings with donors.

These matters have become so severe as to badly impact on the ability of the partnership to collaborate with the country to implement the Polio Programme.

The GPEI Strategy Committee has advised the two team leaders that they have to sit down together and agree on a joint plan of action and have it reviewed and endorsed by the Emergency Operations Centre and the Hub.

DATA INSIGHTS

PAKISTAN 2020: A WORSENING POLIOVIRUS PICTURE

WILD POLIOVIRUS

	2019			2020		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	12	151	17	14	161	12
NON-CORE RESERVOIRS	103	168	47	67	225	54

VACCINE-DERIVED POLIOVIRUS

	2019			2020		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	0	3	3	53	55	15
NON-CORE RESERVOIRS	12	21	15	51	25	30

Source: National Emergency Operations Centre for Pakistan
November 2020 data

COVID-19 IN PAKISTAN IN 2020: POLIO LOCKDOWN AND RESUMPTION PERIODS COMPARED

WILD POLIOVIRUS

	Mar-Jul			Aug-Nov		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	7	90	12	7	65	12
NON-CORE RESERVOIRS	24	132	35	9	85	28

VACCINE-DERIVED POLIOVIRUS

	Mar-Jul			Aug-Nov		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	6	28	10	31	34	13
NON-CORE RESERVOIRS	10	4	9	26	11	21

Source: National Emergency Operations Centre for Pakistan

AFGHANISTAN 2020: A WORSENING POLIOVIRUS PICTURE

WILD POLIOVIRUS

	2019			2020		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	21	50	14	35	23	19
NON-CORE RESERVOIRS	7	0	5	21	6	19

VACCINE-DERIVED POLIOVIRUS

	2019			2020		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	0	0	0	96	93	37
NON-CORE RESERVOIRS	0	0	0	66	25	38

Source: National Emergency Operations Centre for Afghanistan
November 2020 data

COVID-19 IN AFGHANISTAN IN 2020: POLIO LOCKDOWN AND RESUMPTION PERIODS COMPARED

WILD POLIOVIRUS

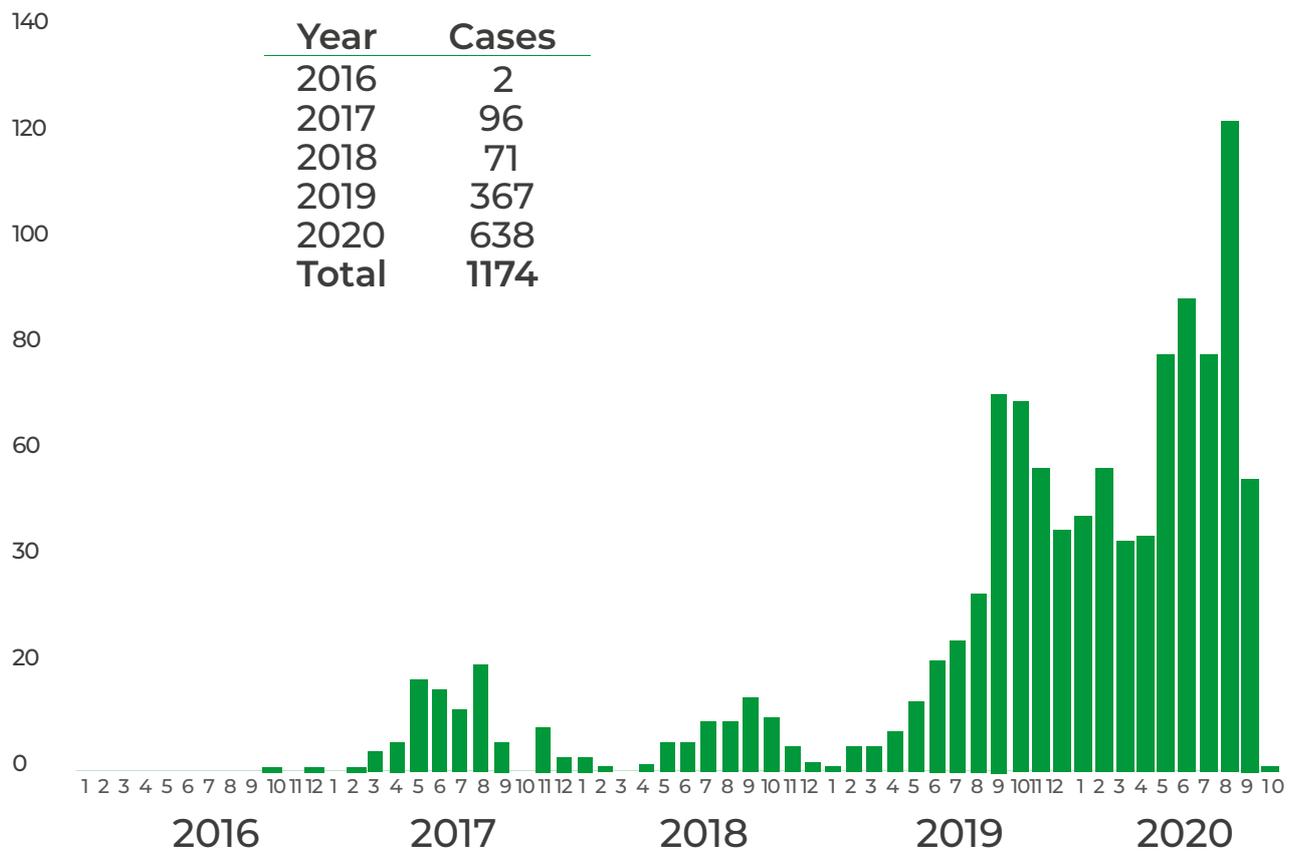
	Mar-Jul			Aug-Nov		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	27	15	18	7	5	6
NON-CORE RESERVOIRS	9	4	8	8	3	7

VACCINE-DERIVED POLIOVIRUS

	Mar-Jul			Aug-Nov		
	Cases	Environmental samples	Infected districts	Cases	Environmental samples	Infected districts
CORE RESERVOIRS	53	47	23	79	41	25
NON-CORE RESERVOIRS	23	11	15	59	14	40

Source: National Emergency Operations Centre for Afghanistan

VACCINE-DERIVED POLIOVIRUS RAMPANT GLOBALLY



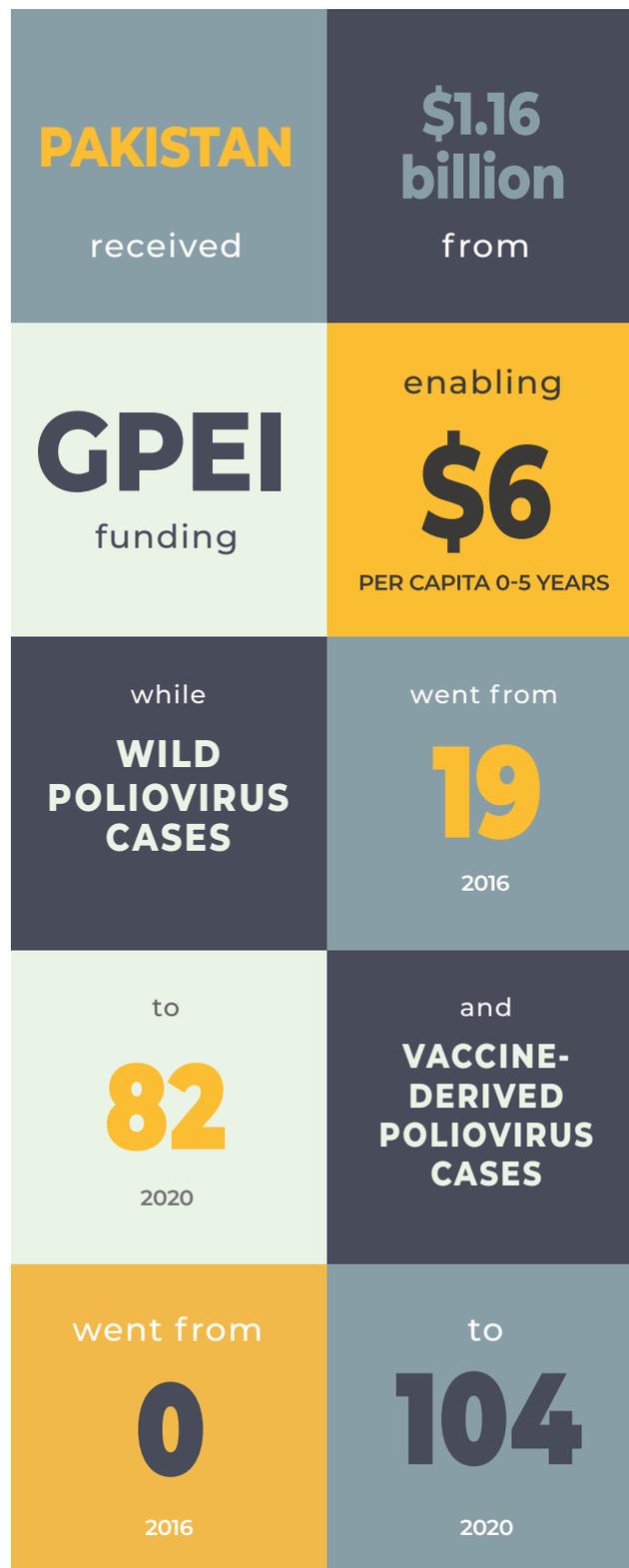
Source: GPEI
October 2020 data incomplete

THE PRICE OF LOW ESSENTIAL IMMUNISATION AND POOR CAMPAIGNS: VACCINE-DERIVED POLIOVIRUS OUTBREAKS IN 2020

Country	Cost	Country	Cost
Afghanistan	\$3.1 million	Benin	\$3.4 million
Angola	\$9.7 million	Burkina Faso	\$5.9 million
Cameroon	\$7.8 million	Chad	\$8.0 million
Central African Republic	\$5.5 million	Congo	\$2.4 million
Côte d'Ivoire	\$7.8 million	Ethiopia	\$18.1 million
Democratic Republic of Congo	\$20.3 million	Ghana	\$11.7 million
Guinea	\$2.9 million	Malaysia	\$0.5 million
Liberia	\$1.2 million	Mali	\$7.3 million
Niger	\$4.4 million	Pakistan	\$27.0 million
Nigeria	\$1.0 million	Philippines	\$11.0 million
Somalia	\$5.8 million	Sudan	\$12.7 million
South Sudan	\$5.3 million	Togo	\$2.9 million
Yemen	\$1.8 million	Zambia	\$2.7 million
Funding for 26 countries		\$190.2 million	

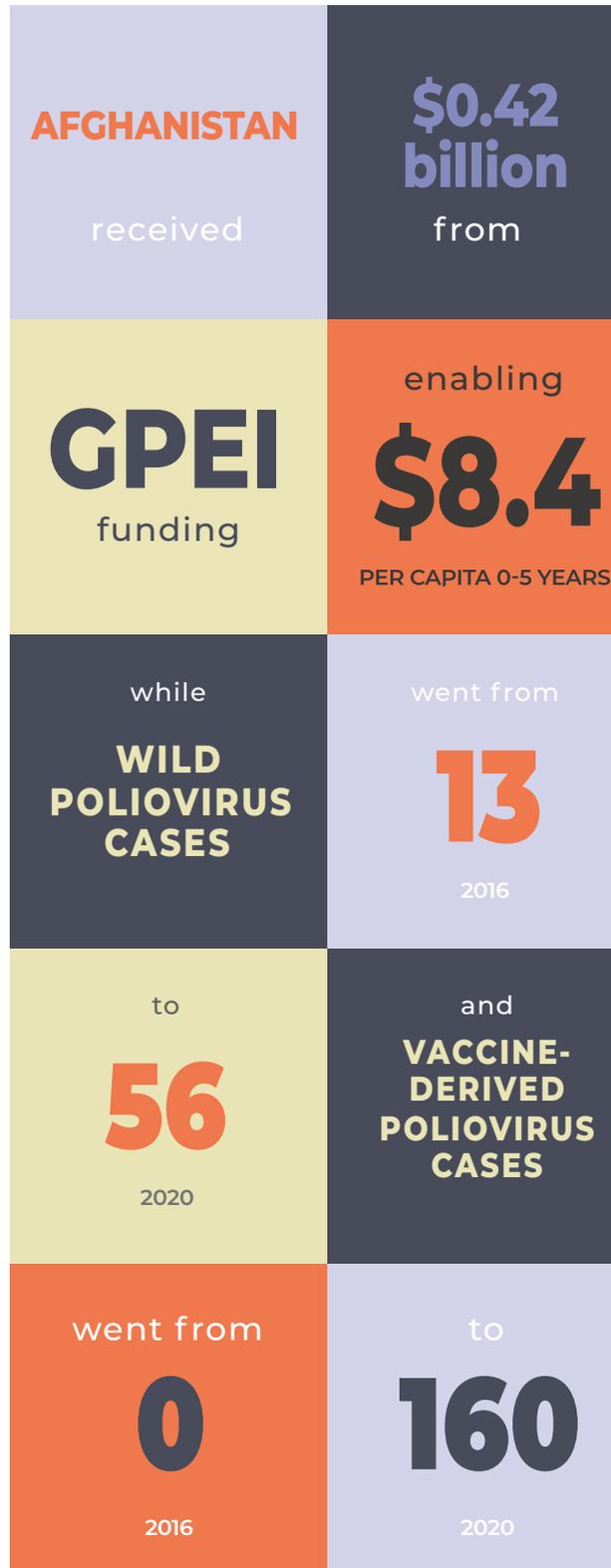
Source: GPEI
 Funding total WHO plus UNICEF allocations
 Covers the year to 16 November 2020
 Figures rounded to one decimal point.

FROM 2016 TO 2020, THE POLIO PROGRAMME IN:



Source:
 Financial data from GPEI finance team
 Population data from Pakistan Emergency Operations Centre
 Per capita is average annual figure over 2016-2020 period

FROM 2016 TO 2020, THE POLIO PROGRAMME IN:



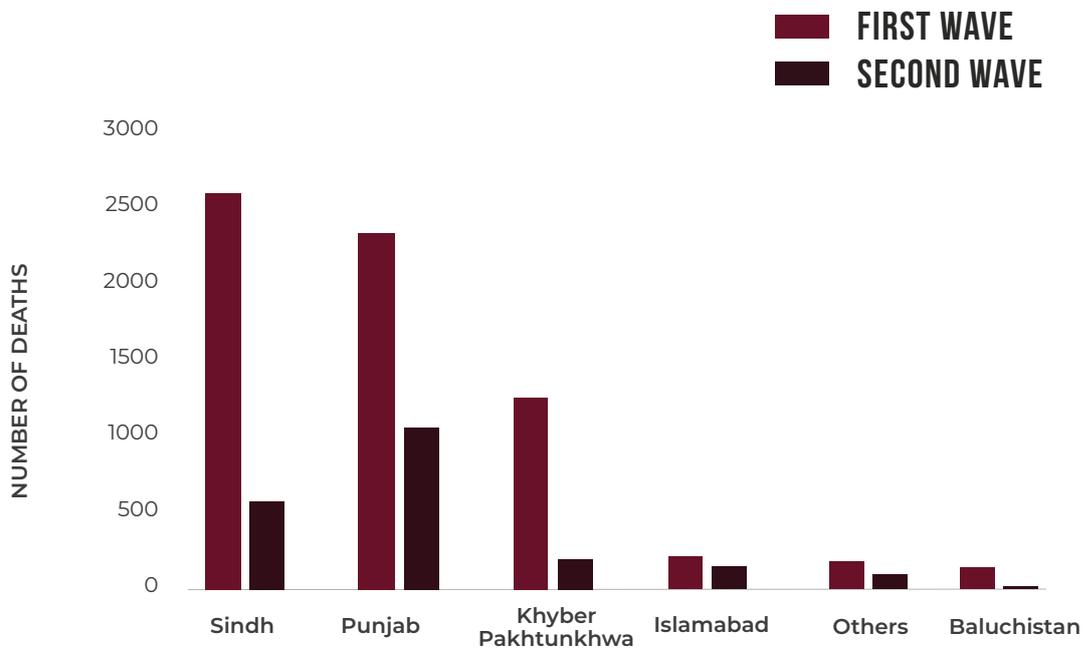
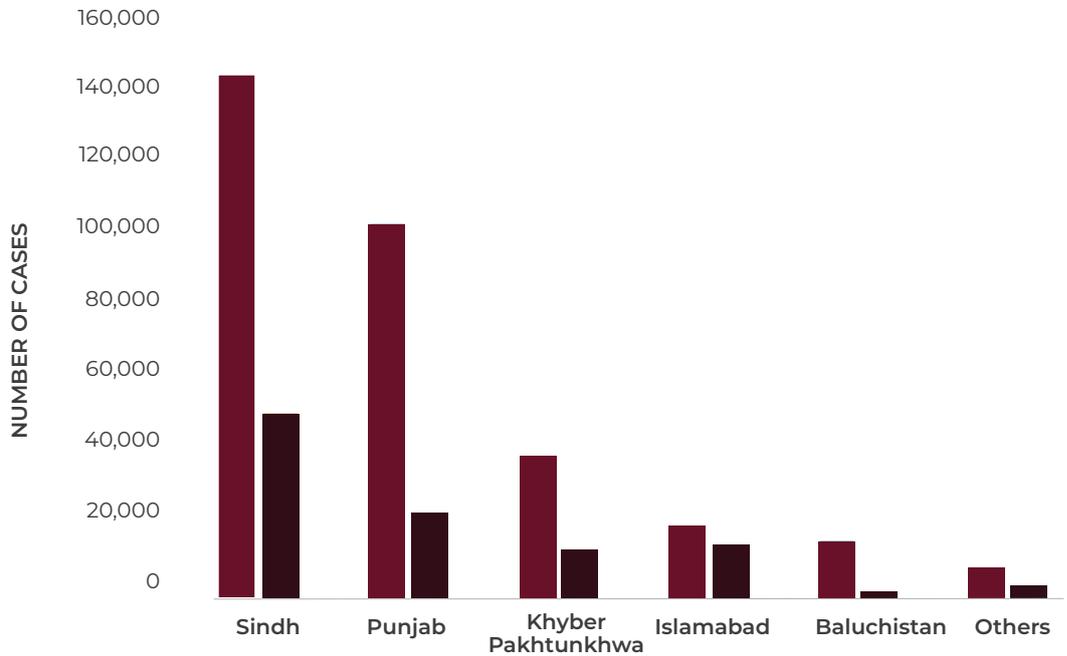
Source:
 Financial data from GPEI finance team
 Population data from Afghanistan Emergency Operations Centre
 Per capita is average annual figure over 2016-2020 period

COVID-19 IMPACT IN POLIO-RISK DISTRICTS IN PAKISTAN (RATES PER 100,000)

Districts	Case rate	Death rate
TIER ONE	669	13
TIER TWO	208	4
TIER THREE	171	4
TIER FOUR	76	2

Source: IMB (raw data from National Emergency Operations Centre for Pakistan)
November 2020 Data

COVID-19 CASES AND DEATHS IN PAKISTAN PROVINCES



Source: National Emergency Operations Centre for Pakistan
 First Wave: up to 3 November 2020
 Second wave (so far): 4 November 2020 - 16 December 2020

CONCLUSIONS

The Polio Programme is at a pivotal moment in its history. The weaknesses and failures that led it backwards, over a period of two years, from a place that felt close to the global interruption of poliovirus transmission, to the current epidemiological debacle, are still present.



THE GLOBAL POLIO PROGRAMME: A FAILURE OF ADAPTATION

The Global Polio Eradication Initiative was launched in 1988, with the passion, energy and fundraising tenacity of Rotary International behind it, together with fellow founding partners (WHO, UNICEF, CDC); it has been hugely successful for most of its lifetime. Other generous donors (major governments, the Bill & Melinda Gates Foundation, Gavi) have become key partners in the endeavour.

This partnership, its organisational structure, its operating procedures, and its impressive infrastructure on the ground, has driven polio almost to extinction.

That this polio eradication endeavour has faltered over recent years should not come as a surprise. It has been tightly controlled and managed by a global entity, the GPEI. It stands or falls by how this global organisation operates. The GPEI is now 32 years old.

Outside the world of health, and well before 32 years are reached, there are many examples of successful businesses and corporations that have run into serious difficulties, and not just because of their longevity. Crucially, it is because their organisational structure, culture, and business model has not adapted to a changing external environment. Perhaps, also, they have looked back at past glories and not accepted the need to change because they are “too good to fail.”

The GPEI seems to have reached a similar point in its history.

For some time, it has been clear that the world in which the Polio Programme is embedded has changed around it.

The humble drops of oral polio vaccine are given against a constantly fluctuating geopolitical backdrop. Political unanimity on the importance of polio is much more difficult to secure than it was 32 years ago.



THE HUMBLE DROPS OF ORAL
POLIO VACCINE ARE GIVEN AGAINST
A CONSTANTLY FLUCTUATING
GEOPOLITICAL BACKDROP;
POLITICAL UNANIMITY ON POLIO IS
MUCH MORE DIFFICULT TO SECURE
THAN 32 YEARS AGO



The oral polio vaccine has greater value than its disease preventive potency: as a powerful bargaining tool for factional interests wanting something from their governments.

Some communities have become so hostile to the Polio Programme, and so opposed to letting their children have the vaccine, that negative attitudes may have reached the point of no return. Violence, territorial blockades, murders and intimidation, in some geographies, are directed against polio eradication activity, in marked contrast to most other humanitarian programmes.

Countries have received steady streams of external funding and extensive global involvement and facilitation. This has not always encouraged them to take absolute responsibility and regard polio as their country's problem.

Finding solutions to these fundamental and deep-rooted barriers to eradication is what is now necessary in order to finish the job. This means the Polio Programme doing things very differently from how it made its name.

Its success came from operating as a technical, disease control programme and this took it a long way. It became over-medicalised in the way that it approached the tasks of eradication. It was not skilled in the tasks of modern management, such as: inspiring people; gathering soft intelligence; managing performance; quality improvement; and daily use of data to devise insightful metrics. In particular, social data were greatly undervalued compared to epidemiological data.

Until late in the day, there was no real belief in alternative delivery models, such as integration. There were regular and unsuccessful vertical programme dashes to try to reach the finishing tape.

These are all reasons why the GPEI – from global to regional to national to local level – needs to adapt and do things differently.

At last, the GPEI has started to talk about this. A six-month long strategy formulation process has been facilitated by external consultants with wide stakeholder involvement. It is set to produce “headlines” in December 2020.

It is essential that this strategy goes beyond problem diagnosis and pointing out what needs to be done. The problems are already well-established and the steps that need to be taken are very clear.

The GPEI, at the request of polio donor countries, carried out and published a governance review. That has not yet been implemented.

There is a great deal of conversation at the moment, within the GPEI leadership and among the donors and wider polio partners, about these matters. It is using up much emotional energy. Some are saying that these reviews and discussions are not on the critical path to eradication.

The revision of the governance of the GPEI, the revision of the strategy of the GPEI, and the revision of the structure of the GPEI are well overdue.

It is important that there is a new, much more effective, and fully accountable GPEI.

Meanwhile, the task of helping the GPEI to move quickly to face, head-on, the task of finding and implementing definitive, transformational and sustainable solutions to its most intractable barriers to eradication rests with the GPEI leadership and the leaders of the national polio programmes.



LESSONS FOR POLIO FROM COVID-19: IF YOU CALL IT "PUBLIC HEALTH EMERGENCY," THEN YOU HAVE TO ACT LIKE IT IS AN EMERGENCY

Among leaders of the Polio Programme and regular observers of its performance there is widespread agreement that the COVID-19 crisis was one of its "finest hours".

Everyone has been deeply impressed with the way that the polio assets were repurposed and helped enormously in the fight against the coronavirus pandemic, so much so that there is a perceived benefit for polio eradication to be harvested from the crisis.

This is an interesting development in strategic thinking. To many, this positivity may seem counter-intuitive because some other global health programmes

have suffered a real and tangible negative impact. For example, a modelling group convened by the World Health Organization and UNAIDS has estimated that a six-month disruption of antiretroviral therapy for 50% of patients in sub-Saharan Africa will lead to an excess of 500,000 HIV-related deaths in a year.

In the IMB's discussion about the form that the COVID-19 "silver lining" for polio might take, very many people pointedly referred to Pakistan's COVID-19 response, asking: if the country could manage a health emergency so well, what has been stopping it from doing this for polio? Indeed, in Pakistan, the new

Special Health Adviser to the Prime Minister told the IMB that he had asked himself the same question. He was the Prime Minister's national Focal Person for COVID-19 before taking on his present portfolio in August of 2020.

Despite the constraints imposed by potential second and later waves of the pandemic virus, the governments of the polio-affected and polio-vulnerable countries do have the opportunity to learn from, and build on, the COVID-19 response.

They can use the attributes of an emergency response, particularly the speed, the flexibility, the incisive



decision-making, the close working of national and subnational levels, the tight coordination, the rapid problem-solving, the placement of the best people in the most difficult places.

This would not be a minor change of emphasis but a paradigm shift of approach if it were to be applied to finishing the task of polio eradication.

The importance of the Polio Programme's role in COVID-19, especially in the two endemic countries,

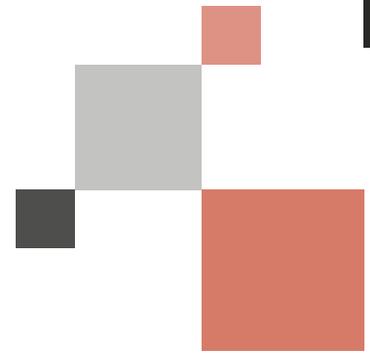
has highlighted yet again that polio has never really been treated as a true public health emergency. The response to the pandemic has been an all-government approach, one befitting an emergency situation. Organisations have worked closely together. Teams that were previously separate have collaborated. Data have flowed freely. Intensive steps have been taken to engage and communicate with communities.

COVID-19 and polio have their greatest impact in

poor and marginalised communities but the response to the two threats has been entirely different: one strong, the other much weaker.

Arguably, it should not need a "silver lining" extracted from a global pandemic for global and national government leadership of the Polio Programme to realise that they were talking about polio being an emergency but not acting like it is.

Now is the time to put this right.



PAKISTAN: A COUNTRY THAT HAS NEVER FINISHED THE JOB

The COVID-19 pandemic has given space for the poliovirus to spread to a range of areas in Pakistan, including those that have been polio-free for a long time. This is a matter for deep concern. There is a possibility that Pakistan could again start to export the wild poliovirus to countries that are very weak in immunisation levels and health system infrastructure.

Countries such as Yemen, Syria and Iraq, for example, could be very vulnerable. Such a development would divert much of the energy and effort of the global Polio Programme to fighting new outbreaks in very complex environments. It is a very high-risk moment in the Pakistan Polio Programme's history.

There have been many false dawns in the past.

In Pakistan, in May 2019, there was a management review that identified key challenges for the country's Polio Programme. Flowing from this, 2020 was named as the "year of transformation" across the seven major priority areas, as well as the core activities of delivery operations, communications

and integrated services, accompanied by critical support mechanisms. Then COVID-19 entered and disrupted this year of transformation.

The transformation process has mainly been run by a third party, the management consultants McKinsey. This seemed to initially dilute government ownership. The speed of the transformation process has been relatively slow, it has not always been a priority for the country team, and COVID-19 has introduced a major new dynamic and style of operating.

The GPEI leadership reassured the IMB that the transformation initiative is now "definitely going in the right direction".

Does that mean it will interrupt transmission of wild poliovirus across the country and extinguish the vaccine-derived virus any time soon?

At the IMB meeting, the Special Health Adviser to the Prime Minister (often referred to as the health minister) spoke in very personal terms about putting his own credibility and professional reputation

on the line. He had spoken to the Prime Minister in one-to-one conversations. He intended to reach their strategic goal of interrupting the transmission of the circulating type 2 vaccine-derived poliovirus into the first part of 2021 and interrupt transmission of the type 1 wild poliovirus by end of 2021.

The national leadership of the Polio Programme in Pakistan is crucial and comes down to the Special Health Adviser to the Prime Minister and the Head of the national Emergency Operations Centre.

The ongoing threat of COVID-19 and, in due course, the logistics of using a coronavirus vaccine in a country as large and complex as Pakistan, will be dominant features of the agenda of the Special Health Adviser to the Prime Minister.

He will have an equally challenging task in making good his pledge to clear the country of two types of poliovirus. His own professional background is a strength, so too his very close working relationship with the Prime Minister, whose authority he will carry with



him wherever he goes.

Yet, he is not a politician. It is vital that he does not adopt a purely medical and disease prevention and control style of leadership but builds the political consensus that is urgently needed and gives strong emphasis to the social and cultural barriers to polio eradication in Pakistan.

The national leader of the Polio Programme backed by the power

of the Prime Minister's office can also play a pivotal role in accelerating the pace of the measures to boost the infrastructure of the super-high-risk union councils; this programme has moved far too slowly. Also, the forthcoming joint initiative negotiated with the World Bank is likely to provide loans plus funding from other donors for health system strengthening, implementation of the universal health coverage package and other health priorities. It would have a positive impact on polio if the investments are made in districts with high polio risk and if it, too, moves quickly.

In other countries, the national Emergency Operations Centre Coordinator has been demonstrated to be an absolutely key figure in polio eradication. So, must it be for Pakistan.

The person holding this role is expected to: possess personal mastery of the science and epidemiology of polio; to have a complete understanding of the methods needed to prevent and control the disease; to be highly data savvy; to know how to judge performance; to command the respect of all staff; to enjoy the support and confidence of the Prime Minister, the health minister, provincial health ministers and secretaries and military chiefs; to have strong working relationships with each provincial Emergency Operations Centre, and to be an excellent communicator.

It is a huge job and very much a "24/7" job. Much is expected, therefore, from the





incumbent of this post in Pakistan, Dr Rana Safdar. However, in addition to this formidable responsibility to eradicate polio, he has been given leadership for the essential immunisation programme and for aspects of the country's response to COVID-19.

The integration with essential immunisation is a very good idea, because it really breaks down silos but, on the other hand, is this more than can be expected of one person? Does it allow him to give enough attention, focus and time to polio? Does he have adequate executive authority and the necessary technical



and managerial support needed for these two critical positions? It would seem wise to ensure that he gets this additional support as soon as possible.

Both national leaders must create the time and space to regularly visit the provincial governments and Emergency Operations Centres, to strengthen their position, to encourage them and to provide them with help and support in surmounting the most difficult challenges.



From the federal level, there was a "real-time" relationship with the chief secretaries and health ministers of the provinces for the first wave COVID-19 response. If this working relationship can be forged for polio between the Special Health Adviser to the Prime Minister and the national Emergency Operations Centre Coordinator with the provincial leadership of the health ministers, chief secretaries and the provincial Emergency Operations Centre Coordinators, it will be a winning combination.

THE PAKISTAN PROVINCES: ALL POLIO IS LOCAL

The provincial health ministers and secretaries in the key provinces hold the world's polio-free future in the palms of their hands.

Their role is absolutely critical for Pakistan to deliver success. They should be hands-on, active system leaders who also happen to be technically knowledgeable.

As the IMB said in its last report, "all polio is local".

If polio is to be eradicated in Pakistan, each of the provinces must have a crystal-clear understanding of exactly what must

be done, including those difficult political and community mistrust issues that have helped the poliovirus to survive so long. A major reason for refusals and community mistrust is poor access to services.

Provincial authorities cannot force people to take the vaccine unless this underlying reason is addressed.

They must never allow factions to hold the programme to ransom and hold back communities from access to the polio vaccine in exchange for meeting their demands. Such situations should be called out publicly and seen for what they are: a threat to children's health and life chances.



THE PROVINCIAL HEALTH
MINISTERS AND SECRETARIES
IN THE KEY PROVINCES HOLD
THE WORLD'S POLIO-FREE
FUTURE IN THE PALMS OF
THEIR HANDS





AFGHANISTAN: SERIOUS DYSFUNCTION AND DENIAL OF ACCESS

The situation in Afghanistan is the unacceptable face of polio eradication.

It is intolerable when assessed as a public health programme and it is a tragedy when judged in humanitarian terms. The country's next generation is being allowed to become sick, paralysed and disabled from an easily preventable disease, because of politics and conflict.

There has been very little headway and few new ideas. There is no end in sight to the ban on access imposed by the Taliban. International negotiations have been underway for a long time.

Locally negotiated access has brought some opportunities to reach children. Better performance of a small number of NGOs has provided polio vaccine as part of integrated delivery to some inaccessible communities. Nothing yet is on the scale and sustainability necessary to achieve the population immunity levels required to stop poliovirus transmission.

In considering the IMB's call for a "Plan B" (18th IMB report) for reaching large numbers of children in inaccessible areas, all roads lead back to the World Bank's Sehatmandi project that delivers most of the country's health services.

The important coordinating role of the national Emergency Operations Centre in Afghanistan is widely acknowledged to be weak compared to its counterparts in other polio-affected countries. This is tied into problems with the design, roles and relationships of the government's national leadership team. This is a long-running area of difficulty in the governance of the Afghanistan Polio Programme and must be resolved definitively.

If this dysfunction were not bad enough, it is now clear that there is deep conflict between the WHO and the UNICEF polio teams in Afghanistan that has to do with personalities and strategic differences. This also needs urgent resolution.

POLIO OUTBREAKS: THE NEXT STEPS WILL BE VERY COMPLEX



In 2016, five type 2 vaccine-derived poliovirus cases were reported from three countries. In 2020, the GPEI allocated \$190 million to combat outbreaks of type 2 vaccine-derived poliovirus in 26 countries.

The earlier downplaying of the relevance and importance of vaccine-derived poliovirus to polio eradication has really come to haunt the Polio Programme. The current explosion of these viruses throughout Africa and beyond is sucking in management time, technical capacity and money like a massive vortex.

The vaccine-derived poliovirus is now a wild poliovirus in all but name.

The emergence of vaccine-derived poliovirus outbreaks in the remaining polio-endemic countries is a catastrophic development. Without the imminent prospect of the novel oral polio vaccine type 2, it is not far-fetched to think that the globally organised and funded Polio Programme would be facing an existential threat.

Solving the widespread polio outbreaks, in the face of ongoing COVID-19 is going to be a huge challenge.

The novel oral polio vaccine is a potentially transformative solution. However, even if it performs, when scaled-up, as the science suggests it should, it will not rapidly clear away all vaccine-derived poliovirus.



The 12-week rule will be quite a constraint on progress, especially where outbreaks are perpetuated by use of the monovalent oral polio vaccine type 2. Indeed, not to be able to strike quickly with the new vaccine in the two endemic countries to reduce further increases in their outbreaks and reduce the risk of international spread is disappointing.

Many countries will need to continue to fight the outbreaks with existing tools, and that will lead to more spread. Moreover, there are concerns that there will be an extremely constrained supply of monovalent oral polio vaccine type 2 for the first half of 2021. The Polio Programme will need to make difficult and critical prioritisation choices.

At least for now, for all these logistic and timescale reasons, the novel oral polio vaccine type 2 is not a “magic bullet.” All effort, including rapid response teams, and delivering the best quality campaigns, with the right scope, must be a very high priority. They will need to be maintained anyway when the new vaccine is deployed. In addition, every opportunity must be taken to engage other stakeholders, including the humanitarian networks in the polio-outbreak countries. There is a need to ensure clear and carefully crafted communication strategies around the vaccine, particularly in the context of any resistance to the COVID-19 vaccine.



THE NOVEL ORAL
POLIO VACCINE TYPE 2
IS NOT AN IMMEDIATE
"MAGIC BULLET"



INTEGRATED DELIVERY: THE FUTURE FOR POLIO

In the IMB's discussions over the years with the GPEI and the governments of polio-endemic and polio-affected countries, and in the Board's many analyses and recommendations, "integration" has related to the model of service delivery for oral polio vaccine.

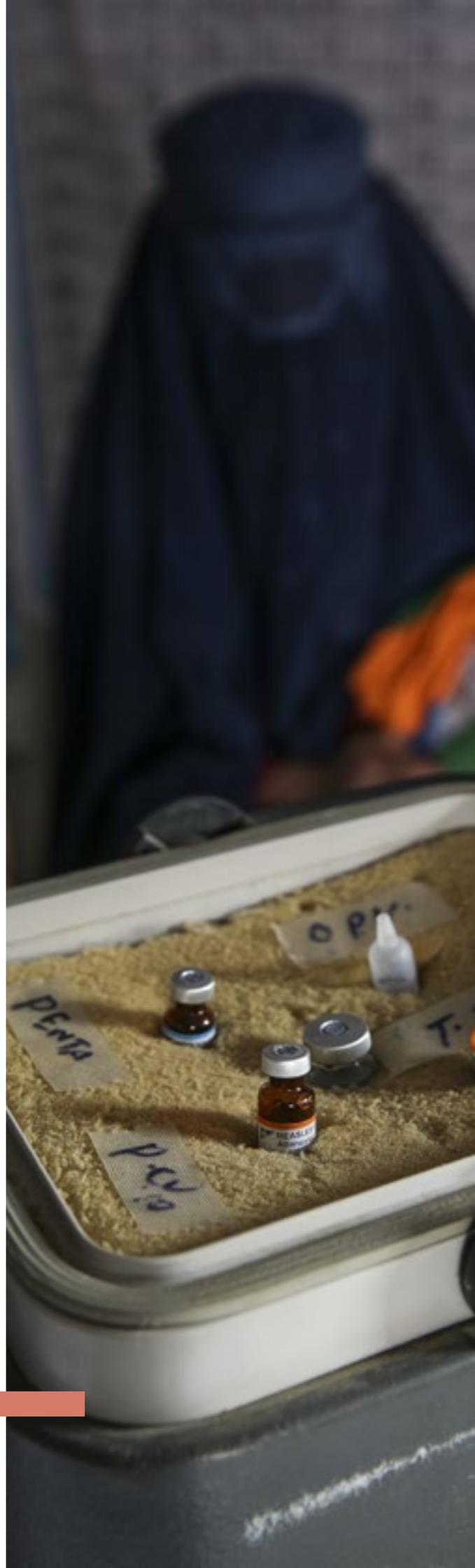
When the goal of eradication is discussed in this context, it is argued that oral polio vaccine is more likely to be accepted by parents, less likely to be refused, and less often to be a focus of organised community resistance if it were to be embedded within a wider programme of essential childhood immunisation.

This has usually been debated in the classic terms of a "vertical" versus a "horizontal" approach to achieving high levels of oral polio vaccine coverage. It is a debate that has long been polarised with a "two tribes" flavour amongst the professional staff in the polio eradication and essential immunisation programmes. Five or six years ago, the GPEI policy-makers would never have countenanced "integration", since the vertical, campaigning, single antigen delivery model had worked wonders over 30 years and they believed themselves to be "almost there".

Over the last three years, it has been recognised, although not accepted by everyone, that the best, or even only, path to eradication might be an integrated one. Two factors began to shift the balance.

First, the depth of resistance and hostility towards the oral polio vaccine in some of the worst affected and poorest communities had reached such toxic proportions that there was no credible short-term solution.

Second, the huge, fast-spreading and unpredicted upsurge of vaccine-derived polio scared everyone; it was recognised that weak essential immunisation programmes were a major contributor.



It is difficult to target all outbreak responses for integration because of the need for rapidly getting out into the field to stop the vaccine-derived poliovirus from spreading with the speed with which it is known to do. However, integration can take place in outreach activities.

In 2019, there were nine countries that had integrated measles and bivalent oral polio vaccine rounds successfully carried out that targeted 43 million children and resulted in a cost saving of about \$7 million. There were more of these planned for 2020 but COVID-19 interrupted the initiative. However, there is planning for an additional eight countries in 2020, anticipated to save \$18 million.

An integrated approach is of particular value in identifying zero-dose children: those who are receiving nothing through the routine immunisation programme. The Polio Programme is able, because of its house-to-house outreach capacity, to identify those zero-dose children. Many can then be brought into the routine immunisation programme.

Integration is not just about giving other vaccines, it is also about vitamin A, deworming and other interventions that can be integrated. It is not only about the vaccine programme, it is about taking the

child's, mother's and family's health into consideration and seeking to provide a package of services in a primary care setting.

The Integrated Programme of Work involves the WHO polio and essential immunisation teams, with other partners drawn in. It is stimulating vital strategic thinking on what the concept of integration might mean and how it might play out in the different country and subnational contexts that affect the two programmes.

Some will be disappointed that the COVID-19-induced pause has not led to the polio chrysalis emerging as an integrated butterfly. In practice, as the Polio Programme started resuming its activities, some countries, but very few, have carried out campaigns which have added measles vaccines, vitamin A, and other health benefits onto the polio vaccine. There is such desperation about the further spread of the poliovirus that little time has been spent on planning beyond traditional polio campaigns. It is especially difficult in an outbreak to integrate a response with other interventions.

Despite the limited scope of integrated polio delivery so far, it does seem to be firmly established direction of travel for the polio-endemic, polio-outbreak and polio-vulnerable countries of the world.





VALUE FOR MONEY IN THE POLIO-ENDEMIC COUNTRIES?

In late December 2016, WHO reported that **Pakistan** had achieved the lowest number of annual cases ever reported from the fewest number of affected areas of the country. By that point in 2016, there had been 19 cases of type 1 wild poliovirus and two environmental samples positive for type 2 vaccine-derived poliovirus (one case later emerged).

From the beginning of 2016 until the time of the IMB meeting in November 2020, the GPEI spent \$1.16 billion in Pakistan.

By early December, in 2020, there had been 82 cases of type 1 wild poliovirus in Pakistan and 104 cases of type 2 vaccine-derived poliovirus.

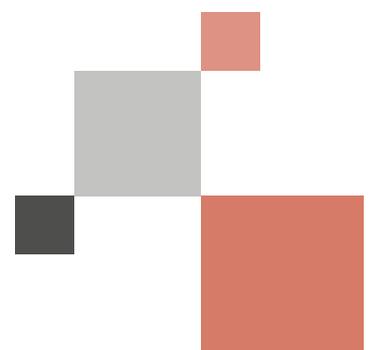
In **Afghanistan**, in 2016, there were 13 cases of type 1 wild poliovirus, and no cases of

type 2 vaccine-derived poliovirus. From the beginning of 2016 until the time of the IMB meeting in November 2020, the GPEI spent \$0.42 billion in Afghanistan.

By early December, in 2020, there had been 56 cases of type 1 wild poliovirus in Afghanistan and 160 cases of type 2 vaccine-derived poliovirus.

On the basis of the numbers shown above, it would appear that, over the past five years, the GPEI has been paying for more cases of polio to occur, not fewer.

In the entirety of its existence, the IMB has been puzzled that the GPEI and its donors have shown so little interest in value for money, given the huge sums of money that are spent.



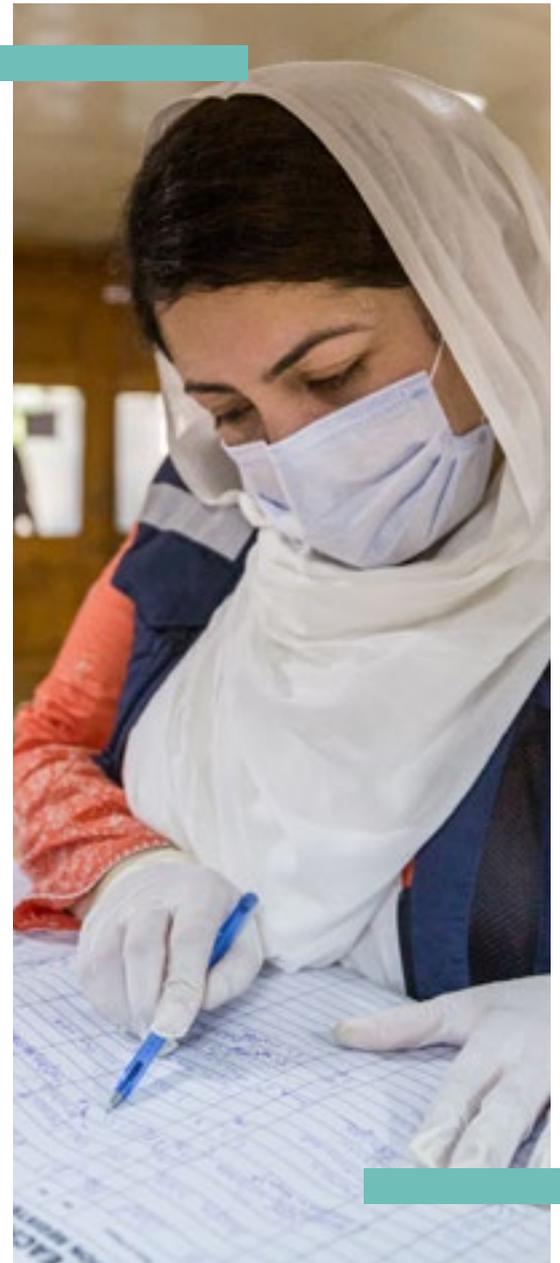
RECOMMENDATIONS

SUSTAIN THE MOMENTUM OF RESUMED POLIO ACTIVITIES

1. The polio-endemic, polio-outbreak and polio-vulnerable countries should sustain delivery of all resumed polio activities by ensuring that rigorous COVID-19 protective measures for health workers and communities are in place.
2. The WHO and UNICEF should organise for polio and essential immunisation field staff to be vaccinated against COVID-19 to protect them and the communities that they are serving.

ESTABLISH A PUBLIC HEALTH EMERGENCY MODUS OPERANDI FOR POLIO ERADICATION

3. The polio-endemic, polio-outbreak and polio-vulnerable countries should remodel their polio programmes as a public health emergency, building upon, and learning the lessons from, the response to the COVID-19 emergency.





THE PAKISTAN POLIO PROGRAMME

4. Following its emergence from the first wave of COVID-19, and the appointment of a new Special Assistant to the Prime Minister on Health (a post with the status of Federal Minister), the Pakistan government should “reset” its Polio Programme to strengthen its performance. The approach should drive action through technical, political and social measures. The “reset” should also incorporate implementation of recommendations 1 and 2, as well as ensuring there is a strong staffing structure to support the national leadership team.
5. From the federal level, the Special Health Adviser to the Prime Minister and the national Emergency Operations Centre Coordinator should forge a “real-time” relationship with the chief secretaries and health ministers of the provinces. Without strong national-provincial teamwork, barriers to eradication will endure. This effective leadership role can only work if there are actual visits to the provinces as well as regular discussions through videoconferencing.

THE AFGHANISTAN POLIO PROGRAMME

6. The senior headquarters and regional office leadership of the GPEI should work closely with their counterparts in the World Bank and Global Financing Facility for Women and Children (GFF) to ensure that the recently initiated Kabul-based discussions on increasing performance management and accountability of the Sehatmandi scheme conclude successfully; they should seek to incorporate a Polio Programme delivery strand.
7. The WHO and UNICEF headquarters management teams should take immediate action to resolve the dysfunctional working and conflict between their Afghanistan polio teams.
8. The Afghanistan government and the Hub should take immediate steps to strengthen the role of the national Emergency Operations Centre; as part of this process they should write new role specifications for the Health Minister's Senior Adviser and national Polio Focal Person and for the Head of the national Emergency Operations Centre so that staff know who is directing their work on different occasions.
9. The Afghanistan government's polio team should build on and extend the success of the pilot scheme that gained access through locally based negotiations.





INTEGRATED MODELS OF SERVICE

10. The Integrated Programme of Work should produce guidance quickly to counteract that widespread belief that oral polio vaccine campaigns can never be effective in an integrated model of delivery.
11. The Special Assistant to the Prime Minister of Pakistan on Health should take charge of the implementation of the “polio sub-package” initiative in 40 super-high-risk union councils, which has been moving far too slowly and failing to reach its transformational potential; specific focus should be given to WASH interventions and their progress tracked.
12. The Special Assistant to the Prime Minister of Pakistan on Health should seek the Prime Minister’s authority to direct the investment being planned with the World Bank and the Global Financing Facility for Women and Children (GFF) into polio high-risk districts.

POLIO OUTBREAKS

13. Closure of all polio outbreaks should be paired with immediate action to plan and resource strengthened essential immunisation and surveillance activities.
14. A specific protocol and decision-making group should be established to advise on compliance with – or reconsider the necessity of – the 12-week rule (i.e. only deploying the novel type 2 oral polio vaccine if no prior use of type 2-containing oral polio vaccines in this time period); such high-level guidance will avoid doubt



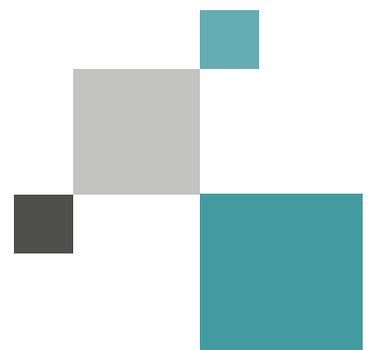
and confusion in interpreting this rule; it will require important judgements on national and subnational geographies and may need scientific modelling data on the distance of monovalent oral polio vaccine- induced contiguous spread.

15. The communications strategy for the rollout of the novel oral polio vaccine is crucially important; it must be fully transparent, regularly assessed against actual experience of vaccine deployment and adjusted accordingly.
16. The GPEI should guide polio programmes in outbreak countries in how to deploy inactivated polio vaccine to achieve maximum population protection from paralytic polio (with a zero-tolerance philosophy towards its occurrence).



EASTERN MEDITERRANEAN REGION: WIDER OWNERSHIP OF THE POLIO EMERGENCY

17. The Regional Director of the WHO Eastern Mediterranean region should work with health ministers of *all* member states to establish a high-level commission to use its influence to rid the region of polio, the last in the world to do so.





INDEPENDENT MONITORING BOARD
GLOBAL POLIO ERADICATION INITIATIVE