

THE END OF THE BEGINNING

First Report of the
Transition Independent
Monitoring Board of
the Polio Programme

July 2017



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This report

The Transition Independent Monitoring Board (TIMB) was created by the Global Polio Eradication Programme (GPEI) to monitor and guide the process of polio transition planning. This is our first report. It provides an initial analysis of the priorities, plans, risks and opportunities as the eradication of polio appears to be drawing closer. In this first report, we have concluded by identifying areas of further work. Our subsequent reports will make recommendations for action.

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FIVE MOST IMPORTANT POINTS

- On average, 25% to 50% of staff funded through the Global Polio Eradication Initiative (GPEI) spend time on non-polio activities such as routine immunisation, broader disease surveillance, laboratory support, and responding to public health emergencies; some countries' health systems have been heavily dependent on polio funding for decades; 95% of the polio asset footprint is concentrated in 16 countries that are the most vulnerable to withdrawal of funding; many of the same countries face simultaneous withdrawal of funding from Gavi and some other sources.
- If polio eradication succeeds but poorer countries' public health services collapse in the initiative's wake, it would be a major failure of global governance and stewardship. The risks to global health and to vulnerable populations are high if the polio transition process is mismanaged. They include: disruption of the path to eradication so that polio resurges; failure to secure and sustain staff, infrastructure and expertise necessary to detect, prevent and control other communicable diseases; direct threats to global biosecurity; rises in death rates from vaccine preventable diseases; humanitarian crises in fragile states; lost opportunities to develop health systems; a drop in resources to respond to public health crises.
- The transition planning process initiated by the Global Polio Eradication Initiative (GPEI) is predicated on four assumptions: firstly, that to the degree possible, countries will absorb the costs of sustaining polio assets within their public health systems; secondly, that countries will prepare national plans that map out the role polio assets play in their health systems and the deficits that will be created when the GPEI closes; thirdly, that the national plans will align with the targets laid out in the Global Vaccine Action Plan (GVAP) approved and endorsed by all WHO member states; fourthly, that by-and-large donors will be prepared to fill the gap.
- The GPEI is not a donor. It has been a vehicle for receipt of donations and targeting expenditure for 30 years. As polio eradication nears, the GPEI's legitimacy to mobilise and oversee resources for the resulting gaps in public health provision is fading. It will not be in a position to receive, coordinate, or allocate donor funding for such purposes; soon it will not exist. Once at the end of polio eradication, funding gaps for routine immunisation and other services will be recurrent and permanent; there will be less donor tolerance towards those countries that they feel should be providing their own resources for non-polio public health services.
- Beyond the world of polio leaders, academics, donors, and enthusiasts, there is little awareness or understanding of the enormity, complexity, and urgency of the action needed to deal effectively winding down of polio funding begun in 2017; nor is there enough appreciation that the poliovirus will not feel the need to comply with an orderly series of planned measures that will allow itself to be eradicated; polio eradication is progressing alongside polio transition planning and if the latter speeds too far ahead, there is a huge risk that resources will not be available to respond to polio and other disease outbreaks.

INTRODUCTION

Polio eradication is the largest global health initiative ever undertaken. Currently spending US\$1 billion annually, the Global Polio Eradication Initiative (GPEI) vaccinates some 430 million children every year, using 2.2 billion doses of oral polio vaccine. It supports an extensive field and laboratory surveillance system. It investigates 100,000 acute flaccid paralysis (AFP) cases a year in a network of 145 laboratories spread across 92 countries. It has 30,000 personnel on substantive contracts, and a much larger workforce within the communities served (who are volunteers or paid on a daily basis).

After nearly 30 years of amassing staff and creating networks to support fund raising, advocacy, vaccine delivery, disease surveillance, and laboratories that address not only polio but other diseases as well, the Polio Oversight Board has announced that the GPEI will “sunset” when polio eradication is officially certified. Certification involves a three-year waiting period after the last recorded case of the disease. Indeed, funding

through the GPEI has already declined this year by a total of US\$330 million. A further nearly US\$300 million drop is expected by 2019.

As a result, some of the world’s poorest countries are seeing a reduction in public health personnel, which could affect their ability to identify and respond to disease outbreaks as well as maintain immunisation levels. Without plans for country governments to take on paying for the infrastructure themselves, or finding other backers, systems could deteriorate. The threat is not only to countries. The World Health Organisation and the U.S. Centers for Disease Control and Prevention Global Immunisation Division both depend on funding generated for polio eradication. For example, a full 20 per cent per cent of the WHO budget comes through GPEI partners. If polio eradication succeeds but poorer countries’ public health services collapse in the initiative’s wake, it would be a major failure of global governance and stewardship.



In addition to risk, the winding down of the GPEI presents a unique opportunity. The hard look at low-income country public health capacities precipitated by the dissolution of the decades' old, multi-agency, global health organisation shines a bright light on the fragile state of more than several systems and offers the international community, beyond the GPEI partners and donors, a chance to step in. This would not only benefit populations, but build on the countries' polio programmes' impressive tools to help prevent other diseases through expanded immunisation and to more quickly identify and contain outbreaks.

Addressing the risks of inaction in the latter stages of polio eradication, as well as seizing the opportunity to unlock the potential benefits that have accrued, was anticipated in 2013. This was when the GPEI issued its 2013-18 strategic plan. Objective four of that Plan was to ensure that the investments made to eradicate polio led to permanent assimilation of polio functions into public health systems and contributed to future health goals. The WHO, and fellow GPEI partners Rotary International, UNICEF, CDC Atlanta, and the Bill & Melinda Gates Foundation, have launched a programme of work to aid countries in achieving these goals and to systematically document and transition the knowledge, lessons learnt, and assets accrued in the process of polio eradication.

On paper, polio transition may sound fairly straightforward. It is anything but. The process involves disassembling an enormous global organisation that has been backed for decades by a million-member global service organisation (Rotary); it is staffed by top public health epidemiologists, immunologists, and managers (CDC, WHO, and UNICEF), and it is the number one health priority of the leading global

health philanthropic organisation in the world (The Bill and Melinda Gates Foundation), with commensurate major investment.

With a very substantial collection of financial resources and talent, this high profile, assertively top-down enterprise now needs to turn the entire juggernaut around as it prepares to put itself out of business. The disentanglement will not come easily. Taking full advantage of what the GPEI had to offer to enhance their capabilities, some national governments have woven polio-funded staff and infrastructure into nearly every aspect their public health systems. While the GPEI is doing all it can to ensure it does not leave a giant hole as it departs, the initiative cannot accomplish the task alone, especially as its *raison d'être*, polio eradication, comes closer to completion. Maintaining and capitalising on the valuable tools created in this endeavour will involve the concerted attention of all stakeholders- donors, affected governments, civil society, and others- interested in furthering the causes of global disease detection and control and the health of world's children and women.

This work is of fundamental importance to the third Sustainable Development Goal: "To ensure healthy lives and promote well-being for all at all ages."

Over the next three years, the Transition Independent Monitoring Board (TIMB) will explore this complex issue with input from global leaders and organisations, national teams, and international experts. Its role is to monitor progress toward the transition of polio assets, not only the tangible, but also the diverse knowledge and interventions created by countries and the GPEI as it sought to deliver polio vaccine to every child in the world.

The complexity of the issue is illustrated by the range of questions that soon arise. These include:

- How can the international community best support country transition planning and implementation?
- What is the best way to promote continuation of long-term functions essential to preserve polio eradication, i.e. polio immunisation and surveillance, poliovirus containment, and outbreak response?
- What should be the GPEI's role, while it lasts, in planning polio transition and exit strategy; and how do the GPEI partners plan for transition and beyond?
- How can the process involve other programmes and donors that would benefit from supporting the GPEI's tools, such as WHO's Expanded Programme on Immunisation and emergency response activities?
- Should there be a successor organisation to the GPEI to promote, at a minimum, the full funding and continuation of polio essential functions? If so, where should it be housed, who should fund it, and who should run it?
- Is the current transition planning process working or should it be revised?
- Should polio surveillance be integrated into national, regional, and global networks, and if so, how?
- What do polio assets currently contribute to other global health initiatives, such as Gavi, the Vaccine Alliance, and the Measles/Rubella Initiative, and how should that infrastructure be preserved?



- Should global funding and advocacy partnerships developed for polio eradication be put towards other global initiatives? If so, what and how?
 - While the GPEI has identified 16 countries, as priorities for transition planning, how should other high-risk countries, for example those on the GPEI Independent Monitoring Board's Red List, approach long-term polio functions?
 - Some countries are facing loss both of polio funds and those from Gavi. How should those situations be viewed?
 - What is the experience of countries that have previously suffered sudden extreme losses in health-related development assistance? How can their coping mechanisms aid countries now facing loss of polio funds?
 - How much of the polio budget-funded infrastructure, such as that to support polio supplementary immunisation activities, can and should be scaled back anyway as eradication is completed?
 - How can donors be reassured about the perception that some have that they are being asked to sign on to fund UN partner staff in perpetuity at the country level?
 - Should the opportunity created by this disease eradication watershed be used to see polio transition through the lens of Universal Health Coverage, or should the perspective be narrower and less ambitious?
- The 30-year, \$16 billion investment in global polio eradication has created an extraordinary collection of public health knowledge and tools. While a huge accomplishment, in and of itself, the end of polio should not mean the dissipation of this global public good. The TIMB will serve as an independent, expert focal point for raising awareness of risks and opportunities and promoting the maximum long-term return on investment for eradication's donors, the vaccinators who lost their lives for the effort, and for broad based improved health, and enhanced capacity and capability of public health systems.

THE COUNTRIES: THE IMPORTANCE OF UNDERSTANDING THE GRANULARITY

The countries themselves tell the polio transition story best.

At its first meeting, the TIMB began the process of understanding the needs, pressures, risks, and prospects of countries that are dependent on polio resources. Thus far, it has spoken to representatives of four countries: South Sudan, Ethiopia, Nigeria, and India.

Suffering through a catastrophic civil war, South Sudan rates 181st out of 188 countries on the UN Human Development Index. It spends less than one per cent of its Gross Domestic Product on health. Polio vaccination campaigns are the best planned public health arrangements in the country, covering 80 per cent of the population. Other programmes cover two to ten per cent. The health service delivery model in South Sudan is unique as it entirely depends on NGOs who are the main providers of Primary Health Care services including essential immunisation. South Sudan already is experiencing low immunisation rates, at 44 per cent in 2016, and has on-going measles and rubella outbreaks in most states. Country health officials told the TIMB that routine immunisation “will fail” without further donor support.

The Polio Programme currently pays for 673 staff in South Sudan that would be lost without assertive planning and attention, according to health officials. The impact would be felt in routine immunisation activities, vaccine cold chain, logistics, polio and other disease surveillance, training, and outbreak response. This fledgling African country has begun its transition planning, hoping to incorporate polio infrastructure into its Boma Health Initiative, a community based primary care arrangement. Officials also hope to use Gavi health system

strengthening grants in the medium and long term to continue support for polio’s immunisation infrastructure. South Sudan’s polio planning process is focusing particularly on retaining human resources to preserve institutional memory and capacity. Officials estimate they will need \$370,000 from outside sources to complete the planning process.

In another example, Ethiopia, a country that also struggles to provide health services to its largely rural population, is facing a precipitous loss of funds. Its polio budget of \$39.8 million will drop to \$4.6 million in 2019, an 88 per cent decrease in three years. Polio funding supports 316 positions. In addition to polio duties, this staff contributes to routine immunisation activities, along with other health programme areas. Nearly 95 per cent of the country’s polio laboratory is funded through the GPEI partners. Country health officials told the TIMB that polio infrastructure enables progress on national priorities, including improving routine immunisation, disease surveillance, and health systems strengthening. Ethiopia has accomplished four of seven elements considered by the GPEI to be essential to complete transition planning, but will experience funding drops before the plan is complete.

Nigeria provides an example of a different sort. The country generated great excitement when it announced it had gone a year without a reported polio case. Ridding Nigeria of polio meant the disease would be eliminated from the entire African continent, a major milestone for the programme. But just as Nigeria was about to enter its second polio-free year, cases were discovered in Borno state. The causative virus had been circulating for five years undetected. Vaccinators and surveillance officers had been

denied access to the region for months by Boko Haram insurgents. Nigerian health officials already had begun their transition activities, but had to pull back as they confronted the active outbreak in the northeast. Having already begun to shift top polio staff to other activities, there was great concern that needed personnel were not available for urgent outbreak duties.

Because of its large population, polio-endemic status, and difficult security situation, Nigeria requires more funding from GPEI partners than any other country, a total of \$247 million in 2016. In an accounting of resources, health officials determined they had a total of 23,269 staff paid for through polio funds, 98 per cent of whom were working in high risk districts and received 70 per cent of total staffing payments of \$89.6 million. Staff responding to a survey said that in addition to their polio duties, they devote time to routine immunisation, measles control, and disease outbreak and response. The Nigeria transition plan links the need for its government to take over polio funding with the demands of reduction of Gavi funding. Between 2017 and 2023, increased co-funding by the government will be required for vaccine procurement, cold chain, and maintenance. After that, Nigeria will be expected to fully finance routine immunisation and new vaccine introduction.

Nigeria vividly displays the risks of transitioning assets before polio is fully eradicated. Staff in countries at a high risk for outbreaks must remain prepared to respond. On the other hand, as shown in Ethiopia, waiting to enact transition strategies leaves countries vulnerable to a precipitous funding “cliff” that could immediately affect their abilities to conduct disease control and prevention not only for polio, but for other diseases as well.



India is the country held out as a model of transition success. Realising the value of its polio-funded infrastructure, the Government of India began looking for ways to preserve it even before its last case of polio in January 2011. Working through WHO and other GPEI partners with the rallying cry “Moving from polio to public health,” India’s national government has taken on partial funding of some activities and harnessed the polio infrastructure to increase immunisation rates in underserved areas. State governments are exploring long-term support for the UNICEF social mobilisation network. The government and the GPEI partners are in the process of downsizing polio staff and offices to be more in line with expected budgets as the GPEI winds down.

According to WHO officials (who appeared before the TIMB in place of government representatives), the Government of India has established a transition planning group to develop a strategy for continuing the National Polio Surveillance Project (NPSP). This project

is a major force in India polio elimination. It is also addressing other diseases and has been instrumental in training public health personnel for a variety of positions both within and outside the government. Both the national and state governments are requesting assistance from the project in dealing with issues ranging from malaria and Zika virus control to leprosy elimination. The government of India plans to increase its financing to the program over a multi-year period, beginning with 10 per cent currently, rising to 50 per cent by 2019. Selective functions have already been taken over by the government, including polio laboratory costs and case investigations.

Even with its head start compared with other countries, India still has not finalised a transition plan but, like other countries, already is facing funding declines.

The granularity of the areas covered, in our discussion with countries, was both revealing and very informative. It is clear that the



requirement for countries to take over the staff and infrastructure currently paid for by the GPEI is putting great pressure on them. This is heightened in some cases because Gavi funding is also being withdrawn on a similar timescale. There is a clearly defined process, euphemistically described as “graduation” from Gavi, which seems to have little flexibility to take account of any analysis of funding gaps that might come from the GPEI transition planning process. Amongst the 16, others will also be facing withdrawal of World Bank funding. India is clearly well ahead of the other three. Its government has taken full ownership of the transition process and has started to underpin services that were grown and sustained by polio funding.

At the other extreme to India, South Sudan is in a dire situation, where the viability of even the most basic health provision, largely delivered by NGOs, is hanging by a gossamer-thin thread. The same could be said of the fundamental governance of the country itself. There is no prospect of the country managing from within its own resources. It is like a hospital patient needing intensive care if they are to survive.

The process of planning and implementing a transition after polio is for nothing if it does not succeed in these countries, and the others like them, where GPEI investment has been substantial. Global action is important, and the GPEI partner agencies also have their own transition considerations, but the countries must be a core concern.



ELEMENTS OF TRANSITION

The GPEI sees itself as delivering polio transition through three broad streams of planning activity:

- **Country level Polio Transition Planning** - in 16 polio priority countries with greater than 90% of all polio-funded assets;
- **Global level Transition Planning** - internal planning process within each individual GPEI member agency (WHO, UNICEF, CDC, Rotary, BMGF);
- **GPEI Post Certification Strategy development** - that will guide key policy decisions and polio programme functions that need to be sustained for a number of years post-certification or post oral polio vaccine cessation.

At this point, the TIMB has taken note of this planning framework without yet committing to whether it is comprehensive enough for the task of assessing and monitoring the challenges of delivering a high quality polio transition outcome. In this section, we comment on some of the specific aspects of polio transition.

The final phase of polio eradication

The global polio initiative has not yet achieved the definitive interruption of transmissible polioviruses (both wild and vaccine-derived viruses) everywhere. When transmission has been deemed to have interrupted, for the subsequent three years at least, the whole world- and in particular, those countries with weaker primary care systems – will have to maintain the measures necessary to ensure that polio does not return. This means keeping to the highest quality of surveillance activities of people, the environment, and laboratories and manufacturing (from where wild polioviruses could fail to be contained). It also means ensuring high coverage

of all populations of children with polio vaccine. This is made more complex by the current shortage of inactivated polio vaccine (IPV).

Following the removal of type 2 polioviruses from oral polio vaccines (OPV), and with incomplete vaccination coverage with IPV through vaccine shortages or imperfect programmes, the world faces a potential catastrophe. If there are cohorts of children who are susceptible to type 2 poliovirus infection and a hidden vaccine derived poliovirus type 2 emerges then this could spark “forest fires” of type 2 poliovirus paralysis that will have to be fought, will consume large amounts of resource, and will reintroduce type 2 vaccine viruses that could trigger further outbreaks of vaccine-derived infection.

This period of time between the last detection of polio in the world, in humans and in the environment, and formal certification of eradication, will be very hazardous for a number of reasons. Firstly, as the recently published IMB report has shown, there are still important weaknesses in current GPEI performance, including: large numbers of “missed” children in high risk mobile populations in Pakistan and Afghanistan; trapped and inaccessible populations in northern Nigeria; weaknesses in surveillance in all three endemic countries with some degree of falsification of data in Nigeria; low levels of immunity and weak surveillance in the Lake Chad areas and countries surrounding Nigeria; low levels of routine immunisation in polio reservoir areas. It is difficult to imagine the achievement and sustainment of interruption of transmission if this remains the status quo. Secondly, it will be very easy for surveillance quality to slide in countries where many of the staff, currently funded through the GPEI, are surveillance officers. If substantial numbers lose,



or leave their jobs during the ramp down, the risk of an unwelcome reintroduction of polio will increase along with the likelihood that it will fail to be detected or responded to promptly.

After the last poliovirus has apparently been detected, the GPEI must guard against any premature celebration of a polio free world. There are multiple factors that will conspire to reverse the success:

- Weaknesses in AFP detection and stool sampling
- Inadequate levels of routine immunisation in high-risk areas
- Insufficient environmental sampling
- Abrupt reductions in polio staffing levels
- Reducing scale of the GPEI management structure
- Areas in which populations remain inaccessible

It is essential that these risks be addressed. Even after global eradication has been certified, the transition programme will need to ensure that surveillance systems remain strong and coverage of populations with inactivated polio vaccine (IPV) remain high. This, of course, implies that the use of oral polio vaccine (OPV) will stop as soon as certification is achieved, leaving just IPV in use. However, there is currently no clarity about the timing of such vaccine sequencing. Demonstration of high levels of biosecurity to contain poliovirus in laboratories and vaccine manufacturing plants will also be vital.

Surveillance at risk: a vital global public good

Thanks in large part to the GPEI, the world stands at a point when there is unprecedented global capacity to detect specific vaccine-preventable diseases and other emerging pathogens. This

happens through many global networks. The WHO and its partners play a vital coordinating role. Most of these networks are based on the polio model, which is a pyramidal, and tiered structure. At the top, are global specialised laboratories providing best practice procedural guidelines and global standards as well as quality assurance. Then, there are the regional reference laboratories to support their national laboratories; in particular, they confirm cases and undertake molecular typing.

The Global Polio Laboratory Network was established in 1990, based on the experience of polio eradication efforts in the Western Hemisphere. After adoption by the World Health Assembly of the goal to eradicate polio, the Network quickly became a formidable and indispensable driver of the eradication effort. That network was established to ensure that high-quality data are reported through surveillance systems. There are now around 150 laboratories in the world. Their main tasks are polio case confirmation as well as providing quality assurance and quality control. They also undertake typing differentiation between wild type poliovirus strains and the vaccine-derived ones and contribute to molecular epidemiological data. This is all integrated with the case-based acute flaccid paralysis (AFP) surveillance.

Beyond its polio-specific purpose, the Global Polio Laboratory Network has engineered important investments in countries, mainly in resource-limited settings: stronger laboratory infrastructure, equipment to do the laboratory testing, provision of supplies and reagents, strong quality assurance and accreditation systems to monitor performance of the laboratories. It has served as a good platform for referral of samples, within countries and

within continents, and it has built staff capacity and capability at all levels (global, regional and national). It has also provided very good standardised laboratory methods for case confirmation, virus characterisation, and developed excellent laboratory manuals that are now used around the world. Above all, it has been a great model for other laboratory networks, a benefit that, if sustained by the polio transition programme, will continue long after polio is eradicated.

The Measles Rubella Laboratory Network started 10 years after the Polio Laboratory Network and is based on the polio model. The GPEI funds many of the measles and rubella global and regional laboratory coordinators. The Measles Rubella Laboratory Network supports the control and elimination of measles, rubella and congenital rubella syndrome. It also provides a quality-assured and standardised laboratory diagnosis together with virus characterisation globally. It enables monitoring of transmission and informs vaccination activities and verifies disease elimination. The laboratories also contribute virology surveillance, by providing standardised protocols for genotyping and tracking the sequences of measles. They support the measurement of population immunity through serology surveys. This network has 703 labs globally. They are serving 191 member states, including many of the national laboratories. The Measles Network has supported the Yellow Fever Laboratory Networks in capacity building and diagnosis.

In the African Region, an average of about 60,000 to 70,000 measles cases are reported each year, of which 30,000 to 40,000 are confirmed. There are around 4,000 confirmed rubella cases. Funding for this work is very



dependent on the AFP polio surveillance system. For surveillance activities and laboratory operations relating to AFP at country level, in 2015-2016, around \$12.5m and \$16.9m per year was deployed. For measles, the figure has been around \$0.5m per year for surveillance and laboratory operations in the last two years. An equal amount has been given for the purchase of laboratory reagents and test kits. There has been a significant decline in partner funding for surveillance and laboratory operations in the last few years. There has been no funding for surveillance specifically earmarked or tagged from partners to support yellow fever control activities, nor neonatal tetanus elimination.

Basically, what this means is that key activities necessary to prevent and control vaccine-preventable diseases have been integrated with the opportunities created through the AFP surveillance system. Without the amount of funding that has flowed into African countries for this, children would have been very vulnerable. Amongst the WHO staff in its African region, those with surveillance officer or epidemiologist roles paid from the GPEI number 355. These are

fixed-term staff, or those with a special service agreement, and it does not account for those who have been included in the programme as surge capacity. They number somewhere around 2,500. In contrast, funding that comes tagged for measles activities, pays for only seven staff across the entire African region.

Key lessons of polio eradication

The GPEI has documented many of the lessons learned during its 30-year trajectory. They are wide-ranging and set out in a table further on in this report.

A key strength of the GPEI has been its development of knowledge, expertise and experience in mobilising social and community support for vaccination. It has reached underserved and marginalised groups (including the populations in conflict zones) on an unprecedented scale. Techniques to track mobile and migrant groups are now very sophisticated. Country polio programmes have learned to engage constructively with traditional, religious, community, and civil society leaders to overcome resistance, hostility, and negative parental attitudes to the vaccine. Structures have been created for community mobilisation. They have enabled delivery of immunisation on a house-to-house basis. They have reached parents at special events, festive gatherings, cultural and religious occasions like weddings and shrines. The teams from UNICEF, and NGO consortia, have placed great emphasis on really understanding communities and using the knowledge gained to communicate effectively and to guide the approaches of frontline workers. Polio resources have often been used as a springboard for broader public health engagement of populations. For example, an estimated 1.5 million deaths have been

prevented through administration of vitamin A during polio campaigns.

Such knowledge, expertise, and experience do not happen without adequate human resource capacity at all levels of the health system. Polio personnel also provide ongoing opportunities for feeding the public health infrastructure with leadership and operational excellence. For example, in India, officers trained in polio surveillance are now leading other important non-polio public health efforts, such as prevention of tuberculosis.

The goals of the GPEI made it imperative to build an advanced, state of the art, global, regional, and national, polio laboratory network. In the process, considerable expertise has accumulated in how to manage and finance very large laboratory networks. Each laboratory is tracked through an annual accreditation process, linked to proficiency testing and surveillance performance standards. There has been innovation, for example, in new diagnostic tools. The laboratory network is now the platform that supports other vaccine preventable diseases, including measles, rubella, yellow fever, Japanese encephalitis, and rotavirus. Great strength has also been developed in the integration of case based epidemiological and laboratory information. In most other laboratory systems, the data from the laboratory is not truly connected to the information from the case investigations. In contrast, in the polio laboratory network (as well as in the measles and rubella network), there is a single unique identifier assigned to every case. This links the laboratory information with the case investigation information. This then enables provision of timely data on a weekly basis by a tiered national, regional and global structure. The polio weekly reports are a unique feature for any disease in history.

The high impact of conflict-affected areas on the GPEI is particular feature of the last decade. However, the need to vaccinate children against polio in such situations goes back to the 1980s when country polio programmes learned to negotiate “days of tranquillity” in the Americas. These were ceasefires, lasting several days, between the warring factions so that both sides could participate in vaccination activities in the areas that they controlled. In the last decade, developing expertise in gaining access to areas of conflict has become absolutely crucial to the GPEI’s performance.

Any major public health programme of long duration must incorporate research and innovation. This was a lesson that the Malaria Eradication Programme failed to learn. The GPEI has embraced research as an essential and critical activity. For example, fast-tracking the development of monovalent and bivalent oral polio vaccines has been a critical success factor. Qualitative research has also been of great value, including shaping special strategies to reach underserved and migrant populations. Other innovations have included vaccine vial monitors that came into existence in the mid-1990s, first for oral polio vaccines and later adapted for other vaccines. The successful global switch from trivalent oral polio vaccine to the bivalent vaccine, and the introduction of inactivated polio vaccine as part of that process, that took place in 2016, involved major innovation in large-scale implementation methods.

The GPEI has developed a sophisticated process of planning through its lifetime. It has learned the value of multi-year strategic plans. The concept of national emergency action plans has been very effectively deployed in a small number of key countries including Nigeria, Afghanistan, Pakistan,

to create plans that are as up to the minute as possible. There are expert inputs to the planning process through Technical Advisory Groups at regional and country level and the Strategic Advisory Group of Experts (SAGE) at global level.

There are national, state, and subnational taskforces in key countries to guide and implement strategy. The creation of an independent board (the IMB) to monitor progress and speak the hard truths where needed has helped the GPEI to raise its level of performance, redesign its governance structure, and introduce a stronger culture of accountability.

The process of microplanning has become one of the flagship elements of polio eradication. This involves detailed mapping of communities, including the use of the Global Positioning System (GPS) and satellite photography. India has been an exemplar developing an impressive microplanning process that has also been used by routine immunisation programmes to identify particular high-risk areas that are in need of services. In 2012, Nigeria underwent a major revision of its microplanning process. Thousands of new settlements were identified, most in areas that had not been included in previous microplans and therefore were being completely missed, repeatedly, by rounds of polio immunisation campaigns. This microplanning moved the Nigeria programme ahead.

Local and countrywide accountability frameworks were built around the microplanning process. These included objective monitoring data, independent monitoring teams, lot quality assurance sampling, and the use of seroprevalence surveys in selective instances to check population immunity to the different poliovirus serotypes.



This accountability framework relies on a supervision process grounded in weekly reporting of “real time” data. Supervisors use the weekly reports to target and prioritise their site visits to the field, especially to those that report late, or to sites with data quality drop-offs. While visiting sites, supervisors use standardised checklists to comprehensively evaluate performance beyond the triggers that sparked their visit. Whilst in the field, supervisors make every effort to inform and engage local government leaders and district magistrates of a programme’s status, while soliciting their support to correct deficiencies.

Analysis of surveillance data has also enabled better, informed changes in case definitions and other case investigation protocols. Analysis of surveillance data helped define risks to the programme more accurately, as was the case with the risk of vaccine associated paralytic poliomyelitis.

Not overlooking the less tangible assets

The GPEI and countries have many other assets. These range from working methods that have been developed, for example: the Emergency Operations Centre (EOC) that was developed in Nigeria. Its value beyond polio eradication has already been demonstrated when it was rapidly re-purposed to stop the spread of Ebola virus in Nigeria. Other assets have been developed in a “soft system” context. For example, the Islamic Advisory Group was set up to bring together a group of well-respected scholars and clerics. It has been hugely influential in the final endemic countries in helping to overcome some of the religious and cultural objections to polio vaccine by local communities. There are other intangible assets, for example the knowledge, networks, and expertise that have gained humanitarian access in countries and places that other programmes have found difficult.



THE TRANSITION PLANNING PROCESS

The GPEI approach to Transition Planning so far

The call for a polio transition, then called legacy planning, is stated in the fourth pillar of the Polio Eradication Endgame and Strategic Plan 2013-2018. The strategy calls for:

- mainstreaming essential long-term polio functions- immunisation, surveillance, communication, response and containment- into other ongoing public health programmes to protect a polio-free world;
- ensuring knowledge generated and lessons learned during polio eradication activities are shared with other health initiatives;
- where feasible, desirable and appropriate, transitioning the capacities, processes and assets that the GPEI has created to support other health priorities.

The GPEI has set out a guiding principle, that: *“to the greatest extent possible, country needs and objectives should drive the planning process.”* The importance of country leadership for transition planning is really at the heart of

polio transition process. Each country has its own context and an existing pattern of public health services. Needs differ whilst the level of support required consequently varies greatly.

The largest part of the polio asset footprint is in 16 countries. They have had between them more than 95% of the GPEI investment. Many are countries that have the weakest health systems and face the biggest challenges in delivering health services. The reason that they have the staff and resources in the first place is because they were not considered capable of eradicating polio on their own. There are some situations of insecurity and instability, for example in South Sudan, Sudan, and Somalia, as well as very weak government services in places like Democratic Republic of the Congo, Chad and elsewhere.

The GPEI has been intensely aware for several years of both the risks and opportunities associated with polio transition and also that countries cannot accomplish this enormous job themselves. Transition guidelines have been sent



out to countries specifying in broad terms what they will need to do to maintain and mainstream the essential polio functions. A task team within the GPEI (the Transition Management Group or TMG) is seeking to ensure that each of the 13 non-endemic priority countries has a transition plan available by mid-2017. To avoid distractions from fighting the poliovirus, the three endemic countries are only asked to have a transition plan in place within 12 months of the last case of polio. The GPEI has a separate workstream documenting and sharing the lessons learnt to make sure that, as a fast-moving planning process flows forward, this key element is not lost.

As the influence of the GPEI begins to fade ahead of its abolition, it is essential that the polio functions that will be required after eradication are maintained. These functions will include some immunisation, strong surveillance methods, the continuing ability to detect and respond to any potential outbreaks, and the capability to contain the poliovirus in laboratories and vaccine producing facilities. The GPEI has initiated planning for a “post certification” strategy that will outline what it considers to be polio essential functions and also working with collaborators on a poliovirus containment strategy. At the 2017 World Health Assembly, the Director General of the WHO was asked to consider polio transition planning an urgent organisational priority. The Assembly member states also highlighted the need to ensure that polio transition needs are fully incorporated into the development of the next WHO budget and planning cycle.

Although countries are expected to adapt to the need they see in their country, the GPEI has set out six key milestones to help them move forward:

- **Raising awareness:** this entails making sure that the country’s government and all its key stakeholders are aware of the epidemiological situation, the impending budget ramp down, and the current level of funding received from the GPEI and how it is being used.
- **Establishing in-country coordination:** ideally a governing body will be appointed, led by the government, and including all donors, immunisation stakeholders, and broader health interests.
- **Gathering evidence for decision-making:** this will involve detailed asset mapping of people, activities, levels of funding, location of services and facilities, and crucially, matching that asset mapping with country priorities and targets for public health and health care.
- **Generating strategic options:** this involves looking in-depth at different elements of the programme and what their future could look like, particularly in the context of what is sustainable in each country; does the government have capacity to take on functions necessary to maintain a strong public health system?
- **Developing a more detailed vision for the future:** countries are being asked to produce a document called a business case or a roadmap. This will set out the future that the country programme and the country’s government envisions, together with financial and management implications. It will help donors and other stakeholders to take a position on whether they wish to make any commitments to support the country.

Although many of the priority countries have met some of the milestones, none has yet finalised its full transition plan.

The GPEI sees its role in moving forward transition in very ambitious terms. It seeks to ensure that each of the priority countries (with the exception of the endemic countries) has completed transition plans in place by mid-2017. It then envisages that it will oversee the execution of the plans to ensure high quality. It wants to provide guidance, support, technical assistance, and generally facilitate the process. It is confident that it can approach and engage the support of donors.

When the World Health Assembly, in 2017, discussed polio transition and endorsed its priority status, it noted that the post-eradication certification strategy is ongoing, and will be presented to the Executive Board and World Health Assembly in 2018. It reinforced the need for assertive leadership.

As the time of achievement of the primary goal of interrupting polio transition globally is nearing, it is clear from the TIMB's discussion with stakeholders that the power and authority of the GPEI over what happens next is no longer seen as absolute.

In managing the major programme of change that constitutes polio transition, at least 12 key management functions will be essential:

- Planning and guidance
- Assessing countries' and global assets
- Advocating and influencing
- Determining priorities for action
- Convening interested parties
- Facilitating implementation
- Managing risks and troubleshooting
- Holding to account
- Mobilising resources
- Coordinating donor responses and investments
- Monitoring
- Overall leadership

The views and representations that have been received by the TIMB, so far, make clear that only the first three of the management and leadership roles, in our list of 12, are seen as the territory of a GPEI that is perceived as "on its way out." The rest of the functions on our list, though vital, are either disputed territory, or are not seen clearly as anyone's responsibility, beyond that of individual countries.



This situation should not be a surprise. The global polio partnership is made up of two United Nations bodies, one technical agency, and two major donors. The WHO and UNICEF supports and guides their member states to develop global health policies and programmes. The pursuit of polio eradication, as a priority above any other, has been a firmly held line for 30 years. No member state has broken ranks despite

periodic behind-the-scenes grumbings about the pressing nature of other priorities. However, seeking a binding commitment by member states to implementing polio legacy and transition plans, which depend to a great extent on countries finding the money to do so themselves, is a much taller order. The WHO and UNICEF do not have the large amounts of funding to allocate to countries on a top down basis. As the technical agency in the partnership, CDC Atlanta has a priority to see the preservation and further development of polio assets that are essential to the wider purpose of communicable disease prevention and control. CDC is a powerful advocate in this regard. It does have funding of its own to allocate and can be influential with donors, especially in the context of global health security. However, it is not clear how this will change in an approaching post-polio scenario or with the evolving political situation in the United States of America. The two donors in the GPEI partnership have committed large sums of money towards polio eradication over a long period of time. Rotary International helped to set the vision of a world free of polio and has sustained a formidable campaign of grass roots fundraising that is unprecedented in the charitable world. The Bill and Melinda Gates Foundation has underpinned, with major funding, much of the work of the polio eradication programme in recent years as well as commissioning expertise and leadership functions. It would not be a surprise if both donors took the position that they signed-up to polio eradication but not to addressing all on-going funding needs arising from closure of the GPEI. However, the overseas aid and development departments of the major donor governments, particularly the United States of America, the United Kingdom, Japan, and Canada will have valuable learning and experience from their involvement with the GPEI.

They must be at the table to give their view on each of the areas of transition.

The pace and impact of the planning process

The GPEI sees polio transition as being country-led so that governments will be in charge of deciding which polio assets they wish to continue and can pay for themselves. According to this planning assumption, they then will seek external support from a range of donors to support other activities. The GPEI could provide consultants to aid with the planning process and support countries at the global level with transition guidelines and consultations. There are aspects of transition that cannot be purely country focussed, for example the complex task of ensuring poliovirus containment. Such areas require global policies, guidance, and oversight.

Despite efforts at the global level to move the process along, the concept has been slow to take hold. While most of the priority countries, have moved forward with transition planning in some shape or form, few have yet finalised plans, even though GPEI funding is beginning to dwindle already.

Contributing to the lag are a lack of resources and technical expertise to carry out the planning process and the fact that country health staff necessarily must prioritise more pressing matters (e.g. active disease outbreaks). Also, working against a quick planning process is the GPEI's long life: in Africa, there are countries that have not seen the poliovirus in 10 or 15 years, but are still receiving GPEI funding. It is hard for them to believe that a structure that has always been there will really disappear.

All these issues have now taken on a decided sense of urgency. In the WHO's AFRO region,

redundancy notices have already been issued to some staff, mostly drivers and administrative staff, but they support surveillance medical officers who patrol for potential polio cases as well as in many countries measles, rubella, yellow fever and other diseases. In a December 2016, a group of immunisation experts from Africa noted *“with concerns” that there “appears to have been insufficient coordinated planning for polio transition.”* It urges great attention to planning *“to avoid adverse impact on immunisation, surveillance, and emergency response programmes.”*

Since Afghanistan and Pakistan are not yet polio-free they are not doing their transition planning. Strictly speaking, Nigeria should be in the same position. It started planning when it achieved non-endemic status. After it was declared endemic again, the country wanted to continue with both eradication and transition. This poses challenges for Nigeria. However, in the light of the funding pressures that will come not just from withdrawal of GPEI funding, but also the Gavi

graduation process, it would be very difficult for the country to ignore the need for a well thought through transition plan.

In order to adhere to the GPEI rule not to distract from the eradication efforts, Pakistan and Afghanistan are not embarking on transition thinking yet. But planning is a process. It takes time and there are funding cycles. Countries have their five-year health plans and five-year immunisation plans. The TIMB heard the view, from representatives of India, that if they had started thinking, planning and assessing likely funding streams, while they were still eradicating, transition would have been easier. Of course, one of the benefits of transition planning is looking critically at the performance of routine immunisation. As pointed out in the 14th report of the IMB, *Every last virus*, strengthened routine immunisation in the polio reservoirs would have an impact *now* in the eradication effort. As part of its mission, the TIMB will explore how countries can be prepared to respond to polio outbreaks while moving toward polio transition.



Assessing progress

The GPEI transition uses milestones to measure where a country has progressed to in the planning process that are clear and based on the transition guidelines. They are largely “yes” or “no,” for example: “Has the country reached the point where the government is aware?” or “Has the country come up with options for transition?” These may be too simple to allow real understanding of whether there are dysfunctional aspects to the transition or opportunities that are being missed. For example, it will be important to know whether the GPEI, as a partnership, is providing the guidance and information necessary to countries for them to fulfil plans, and whether it is being understood as intended. Whether its advice on budgets or its communications to the staff are effective, whether there is generally clarity or confusion, whether the right relationships are in place with other relevant organisations are deeper questions that could be “mission critical.” The TIMB will need to understand these and many other human factors qualitatively through discussions.

Also, it will be important to get to grips with the way that the country governments see their roles in driving the process and really laying out a vision for what needs to happen at the country level. It will be crucial to understand the donors’ position. Much is expected of them but their perspectives are very diverse, as are their funding cycles and policies for allocating resources.

Roles and relationships

There is anxiety in many countries and in parts of the global health community about what will come after GPEI. However, it does not seem that the world is ready to establish a successor to the GPEI to deal with measles and other outbreaks of

vaccine-preventable diseases. The international health community has established Gavi, following a completely different model to the GPEI. The GPEI is centrally controlled and intervenes in a few countries, but directly. Gavi aims to have countries take more ownership, take more responsibility, drive through their health systems, platforms and processes of strengthening immunisation.

The donor view seems to be moving much more towards giving countries responsibilities and focusing their technical direct assistance, or financial direct support, on a few countries that will continue to need that help.

The GPEI is not well placed to start advocating for filling the gaps that they are creating, unwillingly, by ramping down. It is not always credible when it speaks to the donors and says, “We’re creating a gap in the functions of routine immunisation.” The donors are liable to come back and say, “Well, perhaps first you should not have supported this because the money we gave you was money to eradicate polio and not to deliver additional services.” But, there is an important paradox in this. The *Taylor Commission* Report, which evaluated the impact of the polio eradication initiative on national health systems in the Americas, found that cross-sectoral collaboration improved. Non-polio branches of health benefited from this. Subsequently, as in the case of India and other Asian countries, national efforts proactively engineered their polio eradication initiatives to provide a larger footprint of benefit. The Danish Government agreed to fund the establishment of India’s National Polio Surveillance Project because of its belief that such surveillance would benefit the control of other communicable diseases. The Danes justified their support based on the plague scare in Surat, India, in the early 1990s. Regardless, it is clear that donors will expect

countries to take much more responsibility. There is also the vital but complex question of what becomes of the global and regional coordination and leadership side of the function that GPEI has provided. The global and regional leadership roles of WHO and UNICEF have been modified over time as the Gavi alliance has brought money and, through that, a great deal of influence over the priorities and functions of the two United Nations agencies. It would be unfortunate if WHO and UNICEF began to operate as contractors of, rather than strategic partners with, Gavi. A post-GPEI world that does not pay attention to the global and regional components of leadership (e.g. in vaccine-preventable disease surveillance coordination) will be weaker by far. Gavi is governed by a board made up of countries, partners and stakeholders. It is very important that the relationship between WHO, UNICEF, CDC and Gavi is clarified as the GPEI is phased out.

A plurality of voices

In this early phase of its work, the TIMB has heard many opinions and assertions. While everyone agrees at this point that the GPEI needs to complete its job, the goal of polio eradication and the effort needed to secure it has always had its detractors. The most vocal in the public health community are those who say that the massive amount of attention and resources devoted to eliminating one disease could have been better spent building immunisation and health systems that could have addressed a broad range of health threats. We note this point simply as yet another layer of complexity facing polio transition planning: polio eradication has been a long, hard slog that has taxed and tired many and engendered resentments.



Here are 10 examples from the dozens of voices that we have heard:

“There is a lot of talk about addressing funding gaps. But is everyone agreed about which gaps there is a realistic prospect of closing? The situation is scary.”

“As the representative of a donor, I can tell you that being presented by the GPEI with pre-costed country plans and asking us to underwrite them will be completely unacceptable.”

“When the golden pot of polio eradication funding arrived many years ago, countries dipped into it for many other purposes. Today, their hands are stuck in those pots and it will be difficult to pull them out.”

“The reproduction number for measles is huge. If we loosen control over measles because of an outage of polio assets, then it’s Goodnight Vienna for thousands of kids.”

“The whole of West Africa is an outbreak zone. Unless they receive direct support for transition, the world will be left exposed.”

“I find it quite heartbreaking to see the dependence that the polio program has created over the last 20 years. In some countries, it is as if there was no life before polio and there will be no life after polio.”

“Some of the hardline routine immunisation people say to us polio people: ‘You tell us that we’ve got a lot to learn from you. Actually we are okay, thank you very much. Just go away please. You’ve finished your work. We’ll take over from now.’ ”

“As a donor organisation, we have been giving money for polio eradication. You cannot suck us in more widely. We make our own decisions on priorities.”

“The poliovirus has seen the quality of surveillance that will underpin the period until its formal eradication. It is laughing its socks off.”

“Certain countries are the darlings of donors. What about those that are not?”

While understanding and appreciating the strength of feelings, uncertainty, and concern expressed, the TIMB is committed to looking forward and making the most of the polio investment. Now is the time for everyone dedicated to better health for all to work together to ensure the best possible outcome in repurposing polio infrastructure.

CONCLUSIONS AND FUTURE WORK

The Global Polio Eradication Initiative (GPEI) has created unchallenged legitimacy for itself to plan, implement, and enforce accountability in the quest to eliminate polio from the world permanently. It has also developed an assertive role in holding the ring in relation to: dictating the need for, mobilising, and deploying donor funds to meet the polio eradication goal.

The GPEI has become a strong and effective global health partnership of five organisations, with an advanced governance structure. Over the last two years, it has used its cohesiveness and influence to think through the implications of polio legacy and transition and to produce a set of priorities, together with excellent planning documents and tools to guide action by countries and other organisations. All this has been aimed at delivering a successful “polio exit.”

There is almost universal goodwill towards the idea of strong polio transition arrangements. However, the main governance board of the GPEI has announced that the GPEI as an organisational entity, in its present form, will “sunset” when polio is eradicated. This firm and early declaration of impermanence has important implications.

Much has depended on the GPEI as a powerful, and effective global health delivery machine. It is in the nature of leadership, whether in organisations, or in the world of politics, that once a departure from a role, or closure of a function, has been announced, the interim influence of that leadership is diminished. Although everyone close to polio eradication always knew that the GPEI would eventually be phased out, many have been taken aback by the stentorian nature of the announcement that the GPEI would “sunset.” Many that have spoken to the TIMB

have sought to understand the timing. The consensus seems to be: firstly, that the “purse strings” will be closed, certainly as far as health system strengthening implications of loss of polio funding; and, secondly, that the partnership is confident that eradication is on the home strait. These perceptions may not be what the GPEI wants to see prevailing at the present time.

The TIMB has great concern about this shifting of these polio organisation tectonic plates.

As the TIMB discussions with countries continues over the next few months, it is likely that we will find a small number that are closer to the South Sudan end of the spectrum. Others will be ready and willing to take ownership of transition and commit to finding the necessary funding, if given reasonable time. In between these two ends of the spectrum, there will be countries that have become so dependent on polio funding that they are having difficulty recognising the need to take over subsidised services as their own. Also, there will be countries that do step forward for self-funding but are only able or willing to fund a minimum package of care.

The rationale for contributing funding to address the risks and opportunities of polio transition is very different to pooling resources, and ceding the power to allocate them, in the interests of eliminating polio from the world. This applies not just GPEI’s traditional donors but those that relate to non-polio public health programmes. The reduction of resources supporting polio eradication is really a major risk to continuing and expanding vital surveillance networks globally. It is not easy to communicate to donors the important role that technical functions like disease surveillance plays. In the public health world it is recognised to be the life-blood of

disease prevention and control. In the political and public arena, it is neither glamorous or understood, and therefore not attractive to donors.

Delivering on Polio Transition

The work of transition planning is seeking to preserve assets (both tangible and intangible), mitigate risks, and create opportunities for development of health systems. There are currently few concrete goals or targets. We see the job of transition as seven outcome orientated tracks of work:

Track 1: Delivering polio functions with the range, scale, quality, and duration necessary to ensure that it is no longer necessary to vaccinate anyone in the world against poliomyelitis.

Track 2: Ensuring that all populations have a level of coverage with routine immunisation necessary to prevent, control, and even eliminate morbidity and mortality from vaccine-preventable illness.

Track 3: Maintaining, coordinating, and further developing the global systems and networks of surveillance and public health laboratories to provide world class support to communicable disease: early recognition, prevention, control, outbreak response, and evaluation of interventions.

Track 4: Ensuring countries continue to commit to achieving the goals incorporated in Global Vaccination Action Plan, including the introduction of new and underutilised life-saving vaccines and the elimination of measles, rubella, and congenital rubella syndrome.

Track 5: Enabling countries to establish a wider package of basic public health services on an

equitable basis for their populations, particularly focusing on areas where they are performing poorly compared to countries with a similar economic and development profile.

Track 6: Creating space for countries to use the opportunity of polio transition to benchmark their current health provision against the goal of Universal Health Coverage.

Track 7: Exploring synergies and joint work programmes with other essential partners, for example maternal and child health initiatives, non-polio donors, Gavi, global health security groups, and the NGO community.

The learning from the GPEI could contribute to all seven tracks.

Failure or sub-optimal performance on the first four tracks will be catastrophic and cause serious and large-scale harm to populations. Strong performance on the fifth and sixth tracks is highly desirable. Effective social capital built through the seventh track will make for a much more successful transition programme.

There are three important backdrops to polio transition planning. Firstly, outside of a relatively small group of those in the global health field, there is little awareness of the high stakes involved in “polio exit.” Secondly, polio is not gone yet. The task of eliminating all wild and vaccine-derived polioviruses from the world is nowhere near completed, despite recent good progress in the polio endemic countries. Where the pace of transition goes too much faster than the pace of eradication, this is likely to make the interruption of transmission and its demonstration more difficult than it already is.

Thirdly, retaining the services that polio pays for, particularly those that fund routine immunisation, surveillance of vaccine-preventable diseases and laboratories requires recurrent funding not a pattern of one-off grants where there is uncertainty about continuity from year-to-year.

Next steps

The analysis in this first TIMB Report provides insights into the areas where we have the greatest concerns. At this juncture, the points that we are raising are intended to prompt and shape thinking about the transition process. They are not best addressed by detailed recommendations. They first need to be explored in greater depth. Proposals for action will come in subsequent reports.

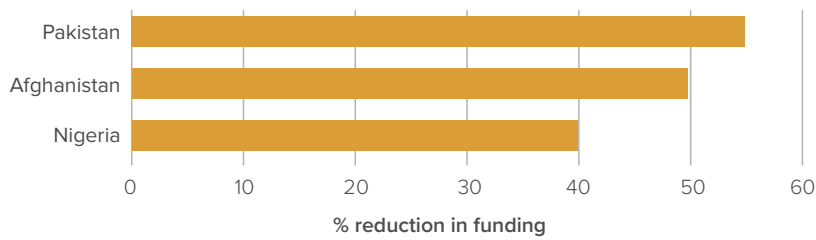


In this final section, we identify the work that we will be doing looking forward:

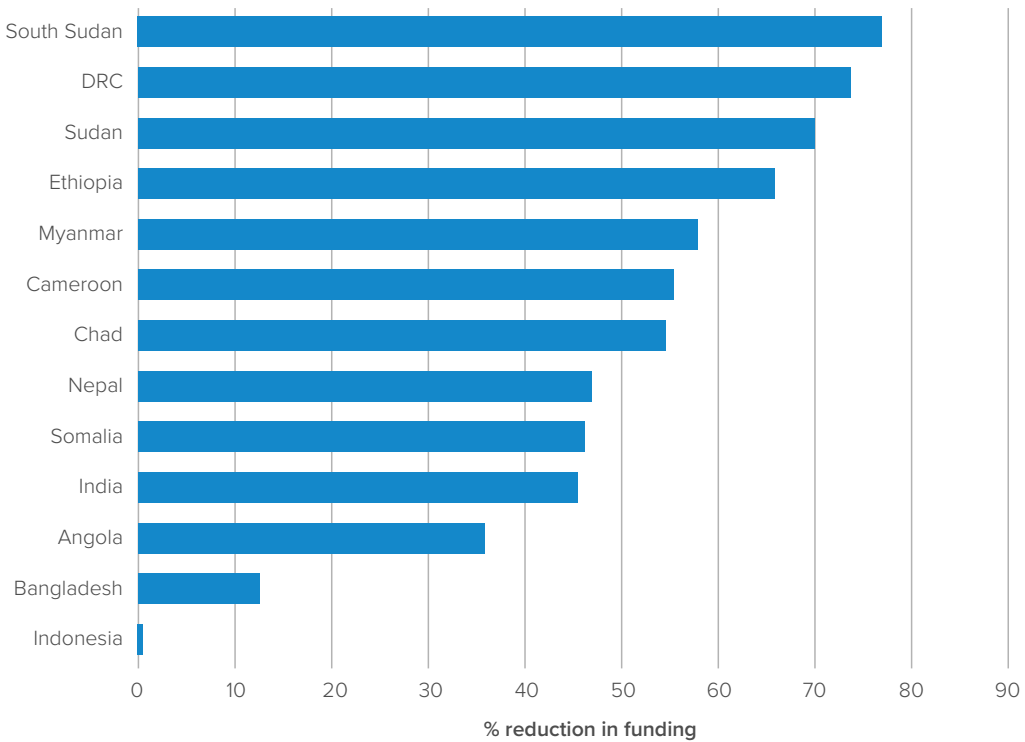
1. Understanding the challenges of transition in more of the 16 priority countries.
2. Exploring transition in the non-priority countries and documenting lessons learned.
3. Discussions with donors, including non-GPEI donors, to understand their viewpoints; particularly to focus on how the resource gaps created by polio transition could provide opportunities for maternal and child health and universal health coverage.
4. Developing, with the GPEI, a more comprehensive monitoring framework that goes beyond the work of those directly polio-engaged.
5. Discussions with NGOs to understand their viewpoints.
6. Assessing the level of awareness about the need for polio transition planning.
7. Identifying programmatic risks that are being underestimated or not addressed; early attention being given to the complexity of enterovirus containment.
8. Ensuring that the data needed to make informed transition choices are available to all stakeholders.
9. Exploring the interface between polio transition planning and country assessments for global health security.
10. Discussing the feasibility of a global framework agreement to protect key aspects of polio legacy.
11. Developing a clearer view of the various transition streams that are currently moving forward, to enable gaps, overlaps and lack of coordination to be identified.
12. Understanding the within-agency polio transition plans of GPEI partner organisations.

DATA INSIGHTS

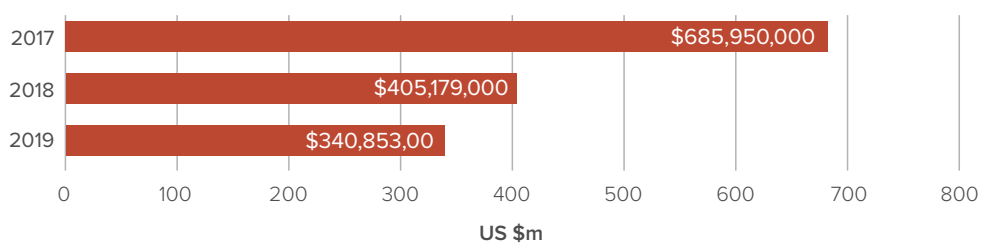
Reduction in Global Polio Eradication Initiative funding in the endemic countries 2017 to 2019



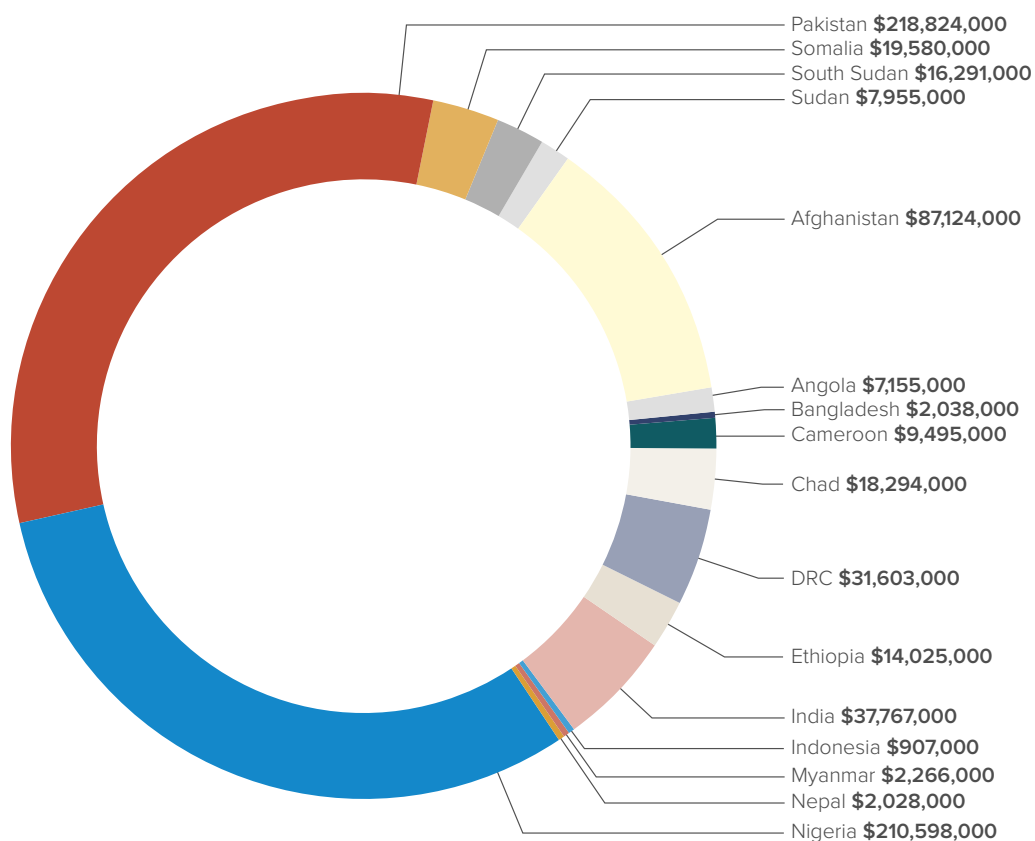
Reduction in Global Polio Eradication Initiative funding in the non-endemic countries 2017 to 2019



Planned spending by Global Polio Eradication Initiative in the 16 priority transition countries



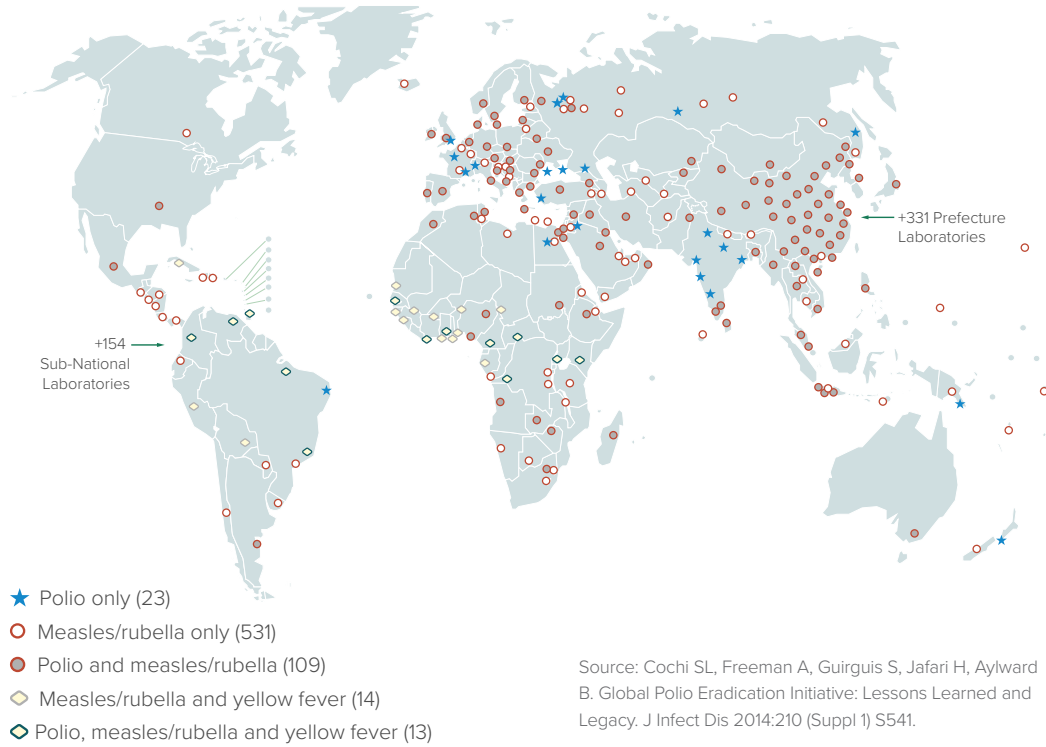
Spending by Global Polio Eradication Initiative in the 16 Polio priority countries 2017



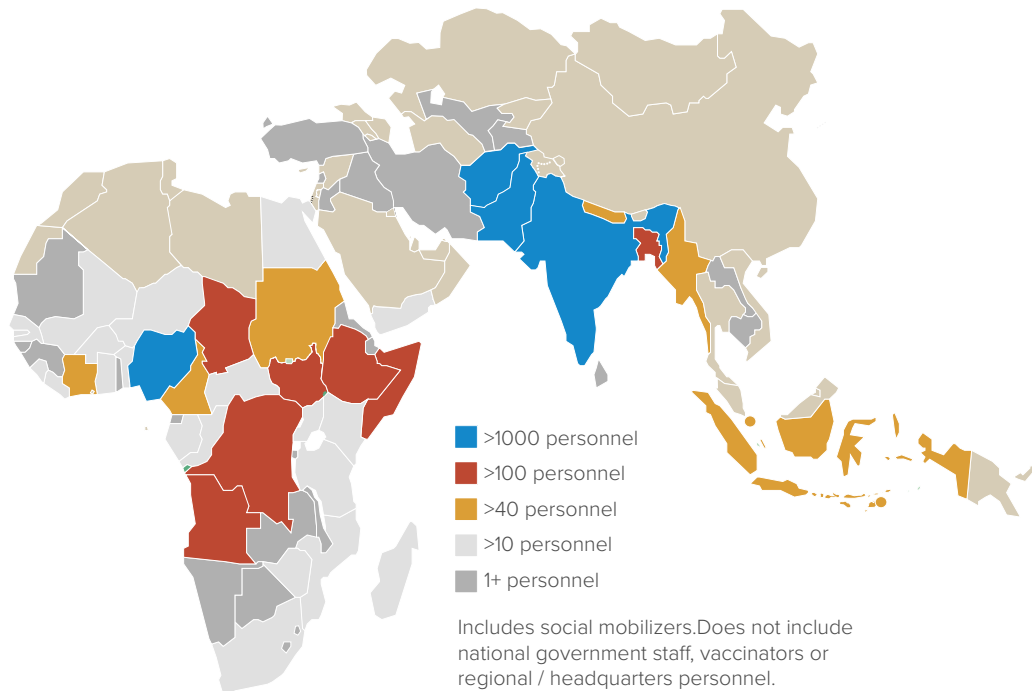
Economic Indicators for 16 Polio Transition Priority Countries

Country	Gross Domestic Product (US\$ billions)	Gross National Income per capita (US\$)
Afghanistan	19.3	610
Angola	102.6	4180
Bangladesh	195.1	1190
Cameroon	28.4	1320
Chad	10.9	880
DR Congo	35.2	410
Ethiopia	61.5	590
India	2090	1590
Indonesia	8619	3440
Myanmar	62.6	1160
Nepal	21.2	730
Nigeria	486.8	2790
Pakistan	271.1	1440
Somalia	5.9	n/a
South Sudan	9.0	790
Sudan	97.2	1920

Building on the polio laboratory and surveillance network

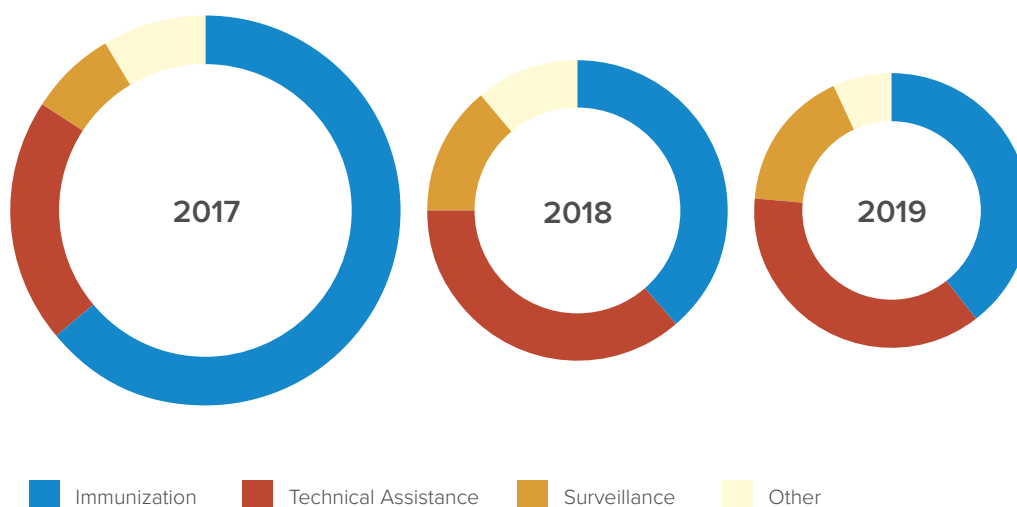


Polio funded staff in over 70 countries, but 95% are in 16 countries



Source: GPEI partner human resources databases, 2014

Type of spending in the 16 Polio transition companies



Lessons Learned: A Listing of Major Categories

Mobilizing political and social support

- Social mobilization and advocacy
- Communications and community engagement

Policy development and strategic planning

- Multiyear strategic plans and planning processes
- Technical advisory bodies and policy processes (national, regional, and global)
- National, state, and subnational task forces to guide and implement strategy

Partnership management and donor coordination

- The Global Polio Eradication Initiative architecture — managing a global public-private partnership
- Interagency coordinating committees
- Financial resource requirements and cash flow management
- Resource mobilization and advocacy

Program operations and tactics

- Global surveillance and response capacity, including global laboratory network
- Mapping communities (microplans)
- Evidence-based decision making
- Accountability frameworks
- Research and development
- Outreach
- Surveys—monitoring and evaluation
- Data management
- Vaccination teams—recruitment, training, monitoring, payment
- Precampaign and in-process monitoring of activities
- Workforce development—building a trained and motivated health workforce

Oversight and independent monitoring

- Performance indicators
- Global and regional certification commissions
- Independent monitoring board

Source: Cochi SL, Freeman A, Guirguis S, Jafari H, Aylward B. Global Polio Eradication Initiative: Lessons Learned and Legacy. J Infect Dis 2014;210 (Suppl 1) S541.

