



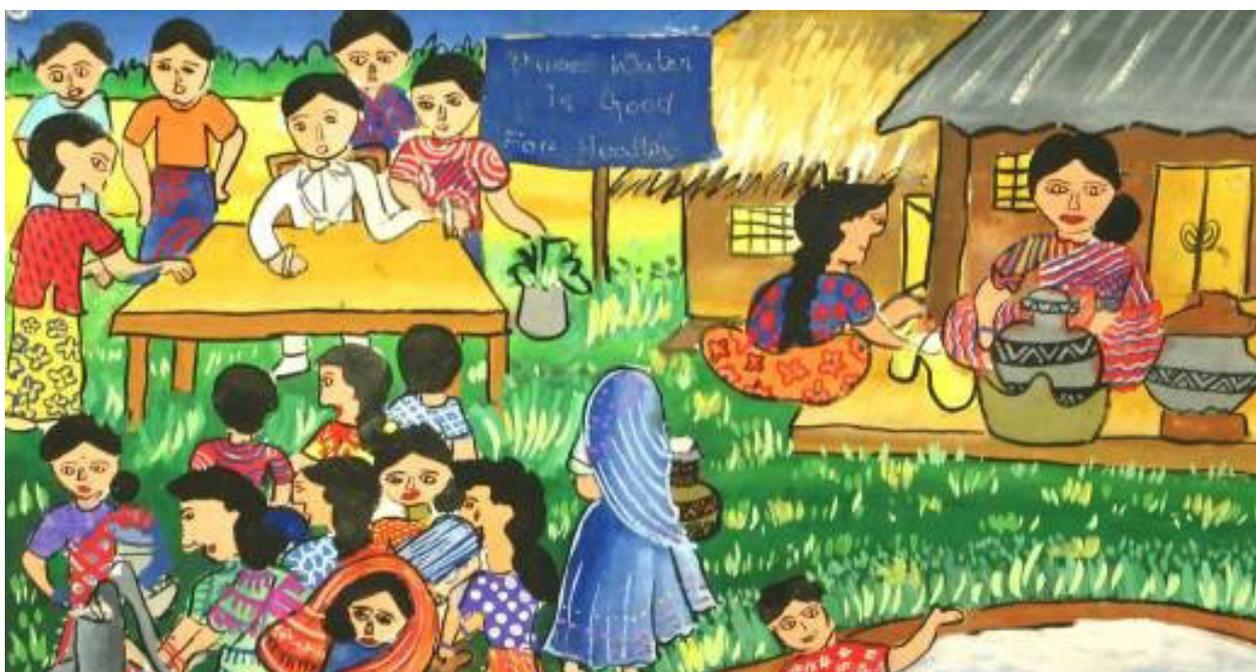
POLIO TRANSITION INDEPENDENT MONITORING BOARD

A DEBT OF HONOUR

DELIVERING POLIO'S LEGACY FOR THOSE WHO HAVE
SUFFERED AND THOSE WHO HAVE DIED

THIRD REPORT
DECEMBER 2018

POLIO TRANSITION INDEPENDENT MONITORING BOARD



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 third report. It captures our view of progress and prospects following a meeting convened by the World Health Organization (WHO) Polio Transition Team with stakeholder interests in Montreux, Switzerland in November 2018.

THIS REPORT

Sir Liam Donaldson
Former Chief Medical Officer for England
Professor of Public Health
London School of Hygiene and Tropical Medicine
United Kingdom

Dr Jon Kim Andrus
Adjunct Professor and Senior Investigator
Division of Vaccines and Immunization
Center for Global Health University of Colorado
United States of America

Dr Salah Thabit Al Awaidy
Communicable Diseases Adviser to Health Affairs
Office Undersecretary of Health Affairs, Ministry of
Health Oman

Dr Mohamed Abdi Jama
Public Health Policy Advisor, Somalia

Professor Yvonne Aida Maldonado
Senior Associate Dean and Professor
Stanford University School of Medicine
United States of America

Dr Bjorn Melgaard
Independent Public Health Consultant, Denmark

Ms Anne S. Mtonga
EPI Consultant, Zambia

Dr Mirta Roses Periago
Former Director, Pan American Health Organization
Argentina

Dr Roma Solomon
Director, CORE Group Polio Project, USAID, India

Ms Heidemarie Wieczorek-Zeul
Former Federal Minister of Economic Cooperation
and Development, Germany

MEMBERS OF THE TRANSITION INDEPENDENT MONITORING BOARD

The TIMB's reports are entirely independent. No drafts are shared with WHO or other organisations prior to finalisation. The term GPEI is usually taken to mean either the management entity formed from the polio spearheading partners and/or the global polio leadership and/or the organised programmes of polio eradication at global, regional, or country level.

Pictures

We thank the children and artists from around the world whose art we have used to illustrate this report. We also thank the national and international health and development agencies whose programmes originally brought these individual pieces of work to the public domain.

OVERVIEW

In our first report, *The End of the Beginning*, published in July 2017, we set out the background to, and purpose of, Polio Transition planning. In our second report, *One Door Closes, Another Opens*, we reviewed progress further and made recommendations aimed at strengthening the Polio Transition process.

The Polio Transition Planning Programme was initiated by the Global Polio Eradication Initiative (GPEI): the five-way partnership between the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United States Centers for Disease Control and Prevention (CDC Atlanta), Rotary International and the Bill and Melinda Gates Foundation. Up until recently, the GPEI's sole mission and purpose has been to eradicate polio from the world. Over 30 years, it has provided the leadership and technical expertise that has brought the number of wild poliovirus cases down from an initial 350,000 to just 29 globally in 2018 so far (26 December data).

Although, by historical levels, the number of polio cases is low, the current year has not been a good one. The Independent Monitoring Board's (IMB) 16th report, *How to Cut a Long Story Short*, was informed by commissioned, independent, in-

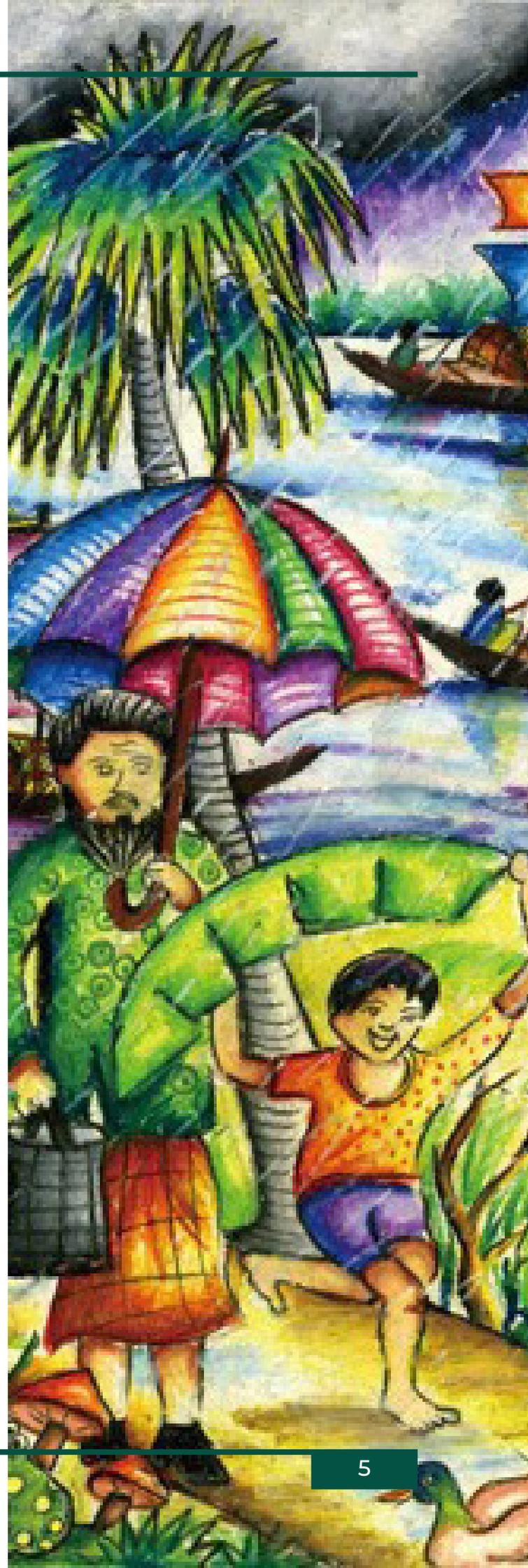
depth field visits that found both local and systemic problems that raised serious doubts about the immediate prospects of eradicating polio. The IMB concluded that progress towards interrupting polio transmission globally has stalled and may well have reversed. The total number of wild poliovirus cases globally has increased: 29 compared to 20 for the same period (26 December) in 2017. The number of cases in Afghanistan has increased: 21 in 2018 so far compared to 12 for the same period (26 December) in 2017. On average, a million children have been missed during each round since May 2018 in Afghanistan. The number of wild poliovirus cases in Pakistan is 8, which is the same as in 2017. In Pakistan, the percentage of positive wild poliovirus isolates drawn from environmental sampling is higher than at this time in 2017 (29 December). More sites are detecting the wild poliovirus than in 2017. There are inaccessible and poorly monitored areas of Nigeria, around Lake Chad and in neighbouring African countries. The number of vaccine-derived poliovirus cases has increased from 84 on 26 December 2017 to 100 by the same point of 2018. The number of vaccine-derived poliovirus cases this year has exceeded the 2017 total and outbreaks cover six countries, including most recently Papua New Guinea.

The *Polio Eradication and End-game Strategic Plan* was updated after a mid-term review in 2015 and extended to 2019 by the Polio Oversight Board in September 2017. The GPEI is currently working to review this strategy and prepare a new document for the January 2019 WHO Executive Board meeting. The review will assess whether the current strategies, functions and activities in the existing plan continue to be valid and sufficient to achieve the eradication goal and if new approaches are required. It will take account of the results of the independent review commissioned by the IMB and the IMB's 16th and most recent report that make high-level recommendations.

The GPEI set three broad goals for Polio Transition:

- Maintain and mainstream functions required to sustain eradication after certification, to protect a polio-free world;
- Where feasible, desirable, and appropriate, transition the capacities, processes, and assets that the GPEI has created to support other health priorities;
- Capture and disseminate the lessons of polio eradication.

The current status of polio eradication has a very strong bearing on the Polio Transition process. In 2015, during the early discussions on transition, it was envisaged that transfer of polio assets, and responsibilities for essential functions, would follow an orderly path as the goal of interrupting wild poliovirus transmission fell into place. Indeed, for the last few years, it has been assumed that the achievement of this goal was imminent.





Discussions about Polio Transition have always been clouded by concerns about the nature and pace of change. There are those who say that Polio Transition should follow several steps behind the eradication programme, so as not to distract from the primary goal. There are those who fear that the more creative planning required for Polio Transition might be a welcome release, for some staff, from the need to concentrate quite so hard on the task of hitting demanding performance targets on the path to eradication. There are those who are nervous that the reduction in scope and planned dissolution of the powerful GPEI is happening much too early. Indeed, some remember that a scaling down of some GPEI technical strategies in the 2000s resulted in wild polioviruses viruses being exported around the world.

Far from worrying about the risks of moving too quickly with Polio

Transition when the poliovirus, in two of the endemic countries, seems to be getting the upper hand in the battle to eliminate it, the tenor of the debate on Polio Transition has been one of frustration with the speed of progress. This is reflected in some of the interventions during the May 2018 World Health Assembly discussions, for example the European Union:

“Unless implementation of the Polio Transition Plan is accelerated, we foresee a significant risk for global health security. But time is running short. The WHO’s efforts hence must be energised”.

A further barrier to effective Polio Transition planning has been that some countries were struggling to come to terms with the rapidly approaching requirement to find the money to pay for staff and public health infrastructure. In many cases, these resources had come to them as a free good for decades.

The 71st World Health Assembly, in May of 2018, dispelled any remaining policy doubts. Polio Transition was to move strongly forward, irrespective of the state of polio eradication, though reinforcing the need to retain primary focus on this. The Assembly approved two key plans: the *Polio Post-Certification Strategy* and the *Five Year Strategic Action Plan for Polio Transition*.

The *Polio Post-Certification Strategy* provides guidance on the technical standards necessary for the functions to sustain eradication: surveillance, vaccination, and containment. The Strategy has three goals:

- **Contain polioviruses:** Ensure potential sources of poliovirus are properly controlled or removed;
- **Protect populations:** Withdraw the oral live attenuated polio vaccine (OPV) from use and immunise populations with inactivated polio vaccine (IPV) against possible re-emergence of poliovirus;
- **Detect and respond:** Promptly detect any poliovirus in a person or the environment and rapidly respond to prevent transmission.

There are six essential functions for the post-certification period after the world is certified polio free:

- Surveillance
- Immunisation
- Outbreak preparedness and response
- Vaccine management
- Supervision and management of field activities
- Research.

The *Five Year Strategic Action Plan for Polio Transition* sets three broad objectives:

- **Sustaining** a polio-free world after eradication of poliovirus;
- **Strengthening** immunisation systems, including surveillance for vaccine-preventable diseases, to deliver the *Global Vaccine Action Plan*;
- **Strengthening** emergency preparedness, detection and response capacity in countries to fully implement the International Health Regulations.

After the approval of the Plan in May 2018, a period of reflection by the WHO Secretariat then ensued. Stakeholders and observers were awaiting detailed information on the arrangements for implementation, including the identity of those whom the GPEI had dubbed the “Future Owners” of the strategy.

A further important development was the publication of *WHO's Thirteenth General Programme of Work*. This formulated a “triple billion” concept of strategic priorities based on the Sustainable Development Goals: 1 billion more people benefiting from universal health coverage; 1 billion more people better protected from health emergencies; and 1 billion more people enjoying better health and well-being.

Traditionally, polio funding has been “off budget” as far as WHO is concerned given that the GPEI partners jointly – and successfully – mobilised the required resources. When, over the years, the World

Health Assembly has considered the progress of polio eradication, it has noted, rather than approved, the budgetary plans. At the 71st World Health Assembly in May 2018, funds were built into WHO's base budget for Polio Transition and the sum of US \$677 million was approved for this purpose. The main intention of allocating this money is to secure continuity of WHO staff and facilities at country level currently being used for immunisation and surveillance.

After the rather long period of silence following approval of the May 2018 plans, a definitive move was made to define the process of implementation of Polio Transition. This was done through a meeting convened by WHO in Montreux, Switzerland on 13-14 November 2018 entitled: *Supporting Polio Transition in Countries and Globally: A Shared Responsibility*. At the meeting, it was announced that:

- WHO is organising joint country

visits to help finalise the plans in the 20 countries that are global priorities for transition, finalise Polio Transition plans and to engage governments and partners to find sustainable funding;

- The high-level Steering Committee previously established to oversee the Polio Transition process will now be chaired by Deputy Director-General Swaminathan, with a dedicated Transition Team having been appointed in support;
- The GPEI has been extended for five years;
- The budget allocated for the GPEI extension 2019-2023 is US \$4.3 billion (US \$3.27 billion has yet to be mobilised).

In this third TIMB report, we address the themes and topics of this two-day meeting and discuss them in the wider context of Polio Transition implementation.



POLIO FUNDING-DEPENDENT COUNTRIES BECOMING SELF-SUFFICIENT

At both previous TIMB meetings, a major part of the discussion with representatives of the GPEI, and particularly its Transition Management Group, was about progress in the development of country plans to take over polio assets and sustain wider public health activities supported by the polio budget. These included vital work in the surveillance, prevention and control of other vaccine-preventable diseases.

Early discussions reflected on how difficult it was for most of the countries to face up to the loss of external funds that had maintained their essential immunisation services for years. Country governments do not automatically think of immunisation when they are budgeting for universal health coverage. There has been an assumption that the funds for this aspect of health service provision will come through external sources.

The GPEI's Transition Management Group oversaw a two-year process of funded, facilitated and coordinated production of country plans. This covered the 16 countries that had received most of the polio funding assistance. Plans were regularly evaluated on seven dimensions ranging from "Communication initiated" to "Plan completed and funded". Results

were presented at the TIMB meetings country-by-country against each of the dimensions on a traffic light summary grid. Over the two years, the grid moved from mainly red to mainly green.

The impressive progress described in the formal presentations belied the widespread and consistent message coming from TIMB sources that few of the plans were more than statements of intent. Criticisms were made that the plans had been written by consultants, had not always engaged senior ministry of health and United Nations agency staff, and were a long way from assuring near-term country self-sufficiency or true ownership of the Polio Transition process at country level.

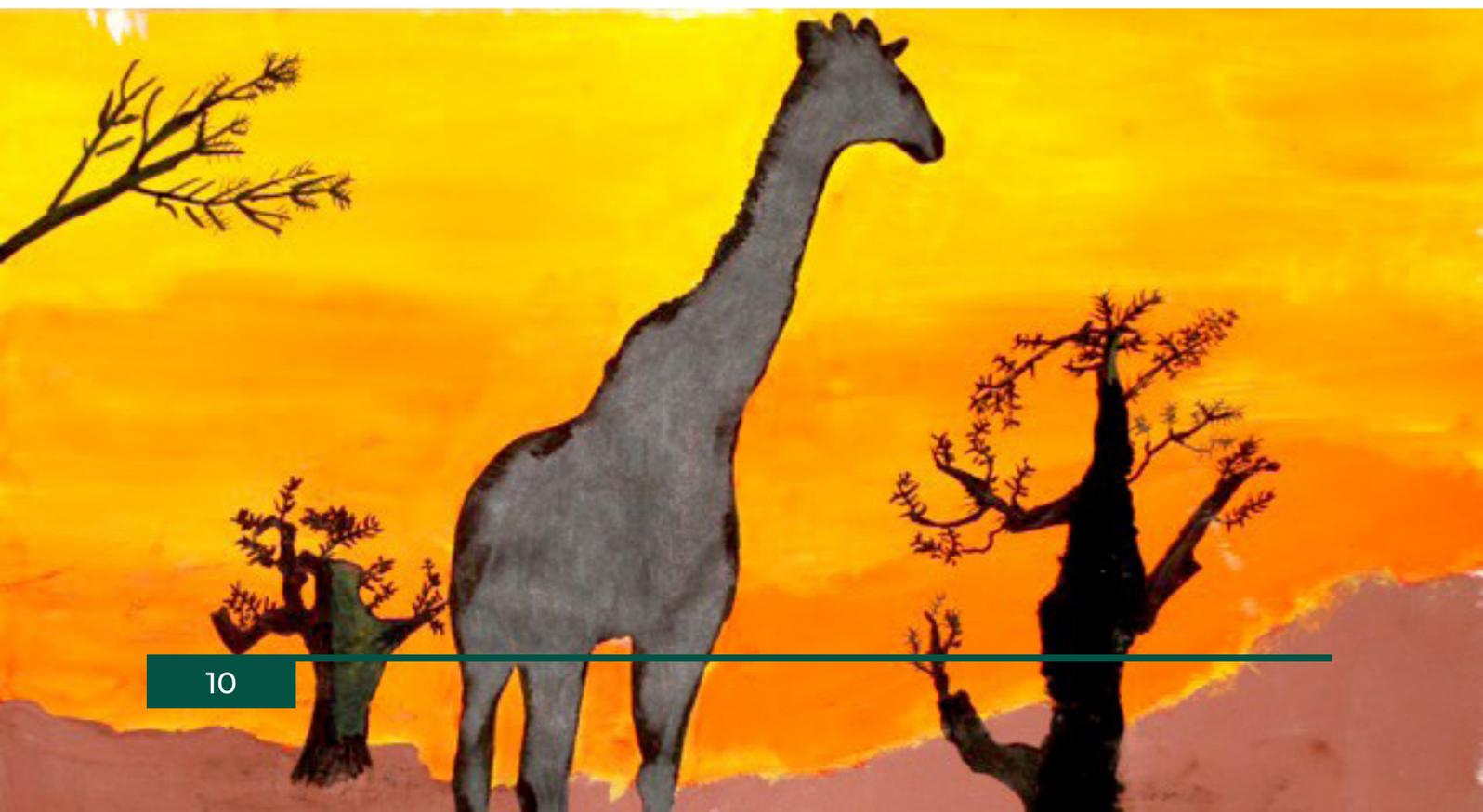
The GPEI Polio Transition planning activities in support of the 16 priority countries cost US \$26 million (for the period 2016-2019). This money was spent in various ways, including in-country technical assistance, advocacy and communication with governments and other stakeholders, facilitation of critical meetings, and expertise commissioned at the headquarters and regional office level.

At the November 2018 WHO Polio Transition meeting in Montreux, there was no return to the traffic light grid

as a means through which to give a comprehensive update on country planning progress. It was announced that seven out of the original 16 Polio Transition priority countries' governments had endorsed a national plan. The meeting in Montreux heard presentations on Polio Transition planning from Bangladesh and some of the WHO regional offices. There was a general consensus that a few countries in South-East Asia, notably India, Bangladesh and Nepal, were relatively far along the Polio Transition planning pathway, especially in their plans for strengthening essential immunisation. Outside the 16 priority countries, there are governments that still receive polio money, although not at the level that appears important to the global polio budget. Nevertheless, this is still significant for the countries concerned. It is not clear how much Polio Transition planning is happening in such non-priority countries.

It was announced emphatically at the Montreux meeting that the GPEI's Transition Management Group had "sunsetting" and "dissolved". This happened right as Polio Transition finally seemed to be picking up pace. It is not clear why this was done so rapidly. So, from July 2018, country planning was devolved to WHO and UNICEF regional country offices. There is little information about the way they approach this both within, and between, the two organisations. However, there is still a need to monitor the country planning work at global level and facilitate aspects of it.

The new WHO Polio Transition Team in Geneva reported that, before the 72nd World Health Assembly in May 2019, they will visit the 16 countries plus four additional fragile states (Iraq, Libya, Syria and Yemen) to assess the state of readiness of countries and to go through their plans in detail. This schedule may not be realistic. It was not made clear whether this process



of visiting to evaluate country plans would involve the GPEI or WHO's Immunisation and Emergencies Teams.

The WHO Polio Transition Team has classified countries into three broad groups:

- Highly vulnerable, fragile or conflict-affected countries, where continued technical and financial support will be required in the medium to long term;
- Lower risk countries, where a faster pace is possible to enhance essential immunisation and emergency response capability;
- Countries with stronger health systems, with a sufficiently large trained workforce and stronger economic capabilities; they are able to fully integrate and fund the polio assets and capacities needed to meet their health priorities.

There are divided views on how far the US \$26 million programme of work has taken the country planning process. The consensus of comments made to TIMB members away from the meeting table in Montreux was that whilst many of the priority countries have costed plans, if looked at closely, most only compensate for the loss of polio assets. They are not really transition plans, where governments or other programmes take over the costs. They are simply a bald recognition of the need to maintain the status quo, instead of designed to improve immunisation coverage in countries already well below targets. The perception is that, on paper, plans may appear finalised and approved by the governments, but the challenge is that there are

few funding sources other than the GPEI budget. Resource mobilisation strategies are not at an advanced stage. Some countries still seem to be expecting major resources to come from external stakeholders. That is unlikely to happen.

The regional supervision of Polio Transition planning has gone more smoothly in the South-East Asia region. Here, there is one technical Team that combines essential immunisation and polio eradication. They work closely with the Emergencies Group for outbreak response and preparedness functions. In both the Eastern Mediterranean and the African regions of WHO, there are two separate Teams, an Essential Immunisation Team and a Polio Eradication Team. In the Eastern Mediterranean region, the management arrangements for Polio Transition are complicated even further because the Essential Immunisation Team sits in Cairo whilst the Polio Eradication Team operates from Amman.

These circumstances raise questions about the oversight of Polio Transition planning by the regional offices, now that it has been devolved. Who owns the process? Who is driving it? Is it Immunisation Teams? Is it Polio Teams? Are they collaborating well? Are the two teams aware of each other's funding streams? One of the reasons why Gavi has been so heavily engaged in Polio Transition planning in South-East Asia is because it was already a part of immunisation discussions and polio was co-located. In the Eastern Mediterranean and African regions, a funding stream comes from GPEI separately.



ESSENTIAL IMMUNISATION

The relationship between what is variously called “routine” or “essential” immunisation, polio eradication, and Polio Transition is complex, multifaceted and, at times, contentious.

The “vertical” nature of the polio eradication programme has been a longstanding focus of criticism. The original aspiration of a polio-free world was framed as building stronger vaccination programmes as the lead component of the strategy with polio eradication being a by-product. In other words, essential immunisation was to be the main driver, not polio. Indeed, this was the approach taken by the Region of the Americas: a multi-vaccine initiative was implemented, with polio vaccine as the high-profile element. Indeed, multi-antigen campaigns were the norm, not single antigen polio drops. In many other areas, including the most recent endemic countries, oral polio vaccine has been delivered together with the other essential vaccines as well as through supplementary campaigns (supplementary immunisation activities).

Critics of the vertical approach have felt that the Polio Programme has built an empire, become the darling of donors, and that it has sucked resources away from essential immunisation. It has also opened the door to hostility and rejection of the polio vaccine by some communities because it is resented as a western-inspired initiative. Ironically, the well-known acronym in the Polio Programme is “SIA” which stands for “Supplementary Immunisation Activity”. These are the repeated rounds of polio immunisation where vaccinators flood into communities to knock on doors and give the polio drops. Supplementary to what? In fact, the term denotes that the activity is supplementary to essential immunisation.

Over the last decade, routine or essential immunisation has played a greater part in the thinking of the GPEI leadership. Initially, this was for two main reasons. Firstly, there was an acknowledgement that polio infrastructure (e.g. surveillance and laboratories) and staff (e.g. vaccinators and team leaders) was

already involved in the control of other vaccine-preventable diseases (e.g. measles). Secondly, breakthroughs in uptake of polio vaccine were being achieved in communities hostile to the Polio Programme by offering it in conjunction with other vaccines that parents did value. When, in 2016, the IMB recommended to the GPEI that Gavi should become a sixth, and equal, spearheading partner, seemingly there was concern that this could lead to an unwelcome thrust to finish the polio job by integrating the vaccine within “horizontal” immunisation. A wave of ideological panic ensued and the IMB’s recommendation went out of the window. The IMB has repeated the recommendation in its most recent report.

A third reason for properly embracing routine immunisation has now emerged. Low levels of routine immunisation are contributing to the generation of outbreaks of vaccine-derived poliovirus. It is now clear that polio will not be eradicated without strong routine immunisation systems in place, especially in the endemic countries and those vulnerable to poliovirus transmission because of low population immunity.

Given this background, strengthening essential or routine immunisation is one of the major components of Polio Transition for three reasons:

- It is essential to the pre- and post-certification stages of polio eradication and could even help, in the short-term, to achieve interruption of poliovirus transmission globally;
- Polio infrastructure, staff and facilities are helping to deliver current routine immunisation

programmes and failure to ensure continuity will result in outbreaks of diseases like measles and in deaths;

- Polio assets, expertise, and programme delivery methods would be of great value in helping make a new *Global Vaccine Action Plan* more successful than its predecessor.

The first two of these objectives are certain to happen because of the dire consequences of failing to do them. However, the third is a developmental opportunity that may, or may not, be fully embraced.

The global approach to strengthening immunisation against vaccine-preventable diseases was intended to be driven by the *Global Vaccine Action Plan 2011-2020*. The 65th World Health Assembly approved this in May of 2012. Its purpose was to:

- Strengthen routine immunisation to achieve vaccination coverage targets in every region, country and community;
- Achieve a world free of polio;
- Meet other global and regional elimination targets;
- Exceed the *Millennium Development Goal 4* target for reducing child mortality by two-thirds;
- Develop and introduce new and improved vaccines and technologies.

It has been closely linked to the *Decade of Vaccines Collaboration (2010-2020)*. In 2010, the global health community declared the next 10 years to be the *Decade of Vaccines*, to create a world in which all can enjoy a life free from vaccine-preventable diseases.



The *Decade of Vaccines Collaboration* brought together diverse stakeholders to develop the *Global Vaccine Action Plan*.

The current *Global Vaccine Action Plan* has almost run its course. A major meeting in March 2019 will continue the process of devising a new one. The most recent evaluation of the Plan carried out by a special SAGE (WHO's Strategic Advisory Group of Experts) Working Group continues to paint a picture of mixed success, stating:

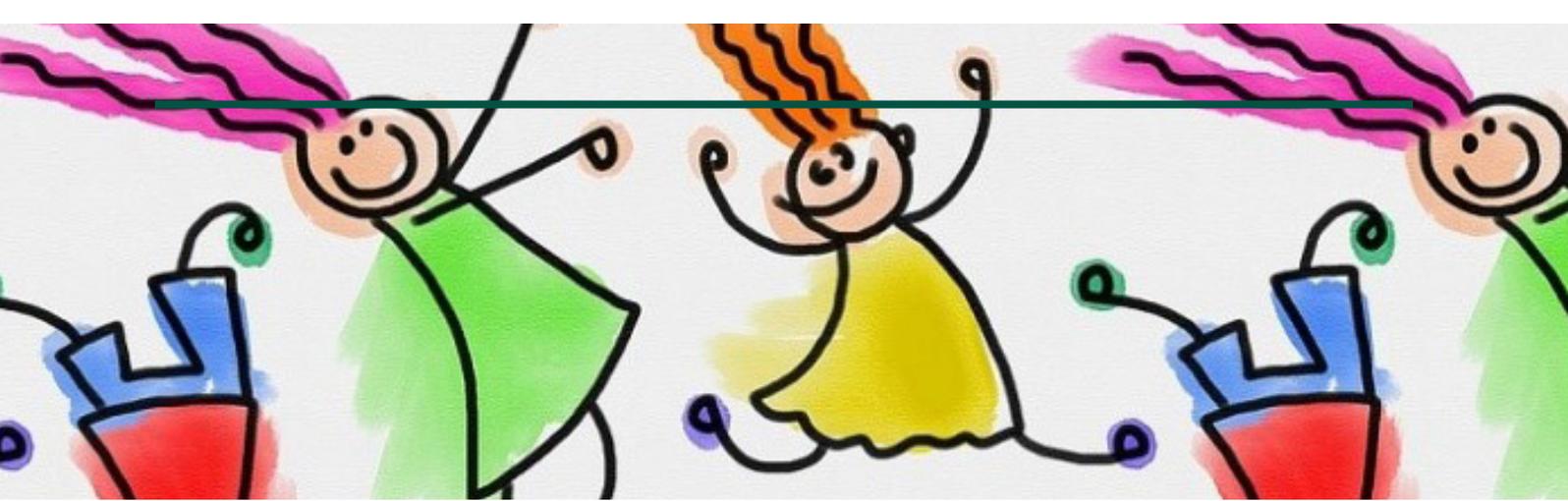
"The Global Vaccine Action Plan set ambitious goals, and it remains the case that most targets will not be met by the end of the Decade of Vaccines in 2020. Three-dose diphtheria-tetanus-pertussis (DPT3) and first-dose measles vaccine coverage have plateaued globally at 85%. Progress towards the eradication of wild poliovirus and the elimination of measles, rubella, and maternal and neonatal tetanus is currently too slow to be achieved by the end of the decade".

The *2018 Monitoring, Evaluation and Accountability Report*, by the Global Vaccine Action Plan Secretariat, was just as critical:

"There are 19.9 million children considered un- or under-vaccinated

in 2017. Only 25 out of the 40 countries required have achieved maternal and neonatal tetanus elimination. The global incidence of measles increased in 2017 from 19-25 cases per million. Despite the Region of the Americas being verified measles-free, measles outbreaks in Venezuela led the region to lose its measles elimination status in 2018. In 2018, global coverage for rubella is at 52%. The incidence of rubella has dramatically increased in the African Region, despite increased coverage. There was insufficient data to conduct analysis this year on equity. However, data from 2013 showed children living in richer households in the South of Nigeria were 300 times more likely to be vaccinated than those living in poorer households in the North-East".

There have certainly been gains. The SAGE evaluation report points out that, in 2017, 116.2 million children were immunised. This is the highest ever total. The Region of the Americas banished maternal and neonatal tetanus; only 15 countries are left trying yet to achieve its elimination. Since 2010, 113 countries have introduced new vaccines, and 20 million more children have been vaccinated.



The SAGE evaluation, though, laments the loss of ground. For example, because of low coverage, different WHO regions have been hit with large measles and diphtheria outbreaks. Children have died. Eleven countries with DTP3 coverage rates above 90% fell below this level in 2017.

Clearly, there has been more success in introducing new vaccines than in increasing coverage with established vaccines and in reducing inequity. The *Global Vaccine Action Plan* has not really functioned as an effective plan. It has contained a high-level set of targets and detailed objectives but less in the way of detailed implementation mechanisms.

As an advocacy document, the *Global Vaccine Action Plan* is said to have worked well. WHO Regional Committees have reviewed their Plans annually. The Plans were developed using the *Global Vaccine Action Plan Roadmap*. They made policy recommendations to capture high-level regional attention. In moving the strategies into action, the *Global Vaccine Action Plan* did not offer enough tools. It did try to implement a strategy of reaching every district. It has not had the nuts and bolts in place to achieve this, for example neither adequate supervision nor regular data monitoring. The Plan relied on periodic

surveys and administrative data, not on doing daily tracking. There was no push for time limits and completion of immunisation, looking at drop-out rates, using maps, or real-time data analysis. Vaccinators' training has often remained the same for years.

Most of the funding for the *Global Vaccine Action Plan* has flowed through Gavi and action was driven by its high profile communications. WHO leadership on essential immunisation has been quite subdued. Gavi was very successful with the whole vaccine introduction process. Uptake of vaccines overall was not really successful. When Gavi funding disappears, will countries be committed to continuing the vaccines? What will be the challenges for them in doing so? New vaccines have been introduced but their ongoing use may be putting great funding pressures on some of the countries. This is because they are struggling to afford the basic vaccines. Now they are introducing more expensive new ones because coverage itself has not moved.

The *Global Vaccine Action Plan* was also tied very closely to achieving the *Millennium Development Goals*. This meant that it was quite disease-specific.

Helping to strengthen immunisation systems is something that falls clearly

into the mandate of Gavi. However, it has largely limited its scope to resource poor countries. There are countries with higher resource status but persistent vaccination coverage gaps. These countries lack sufficient oversight. It could be in Gavi's best interest to stop those mid-resourced countries from slipping back into the lowest coverage category. Its next strategy will cover from 2021 to 2025. Gavi has had discussions back and forth with stakeholders and governance groups, but the process has not yet reached the final stages. When, during the annual joint appraisals, Gavi brings countries to the table to discuss their achievements and on-going challenges, its staff tries to orient the discussion towards the countries' own objectives for their immunisation programmes. More recently, Gavi has been considering how to increase its engagement, and augment its support, in global health security, in outbreak preparedness response, and in vaccine-preventable disease surveillance.

Ensuring the availability of affordable inactivated polio vaccine (IPV) is essential for a polio-free world. It seems a possibility that Gavi could support IPV in a post-2020 era, meaning that Gavi must be involved in all planning. It is very difficult to separate the IPV thinking from the broader routine immunisation discussions. In the schedule for immunisation, IPV is just one antigen. There cannot be a separate IPV strategy. So, even the IPV discussion, between Gavi, WHO and others, is taking place in the bigger space of universal immunisation.

In the same way that some countries now tap into Gavi's support for elements of Polio Transition, there are moves to use tailored country assistance resources to support vaccine-preventable disease surveillance and laboratory capacity. Maintenance of global surveillance of vaccine-preventable and other diseases is of the utmost importance for security as well as for health reasons. Specific



actions by Gavi could help sustain global surveillance to a high standard. Gavi currently supports vaccine stockpiles, not just financially but their management too; cholera, meningitis and yellow fever vaccines are all examples of this. If polio vaccines have to be stockpiled in future, Gavi would be well placed to help.

Work has already started to create a new *Global Vaccine Action Plan*. Gavi does not cover all countries, including those that have “graduated” from its funding programme. Increasingly, many of the countries left under the Gavi umbrella will be those that are poorer or affected by emergency situations and conflict. This will make it difficult to achieve good coverage levels in the communities concerned. In turn, overall coverage performance may not improve. It may also decline if immunisation coverage rates by deprivation status remain static. This is because fertility rates are highest in the poorest set of communities, and this group also has the lowest coverage rate.

It is important to ask: how different will a new Global Vaccine Action Plan be from the current one? In particular: Will it have money? Will it have teeth? How will it be led? Will there be partners accountable for leadership, tracking outcomes and sustainability? Will the new plan have a very clear strategic policy focus? In particular, how much emphasis will be given to equity? How will the strategy avoid misdirection of resources and attention to communities and geographical areas that have enough to manage or are more accessible?

An equity driven plan would have to come to grips with the challenge of achieving high coverage rates in:

- Poor urban areas;
- Conflict, fragile and disordered settings;
- Remote and hard to reach communities.

Other very practical problems have impeded progress towards high routine immunisation coverage rates. For example, less attention has been given to the design of programmes at sub-national level. It is crucial that actionable data are available here to guide programme planning and delivery. The availability and quality of subnational data in many countries is usually weaker than at national level. Also, the engagement of local government and non-governmental entities is often very variable, yet the ownership and commitment at this level to high immunisation coverage is vital to success. So too is the quality of the system of delivery at local level, especially leadership capability and capacity. The end stages of the polio eradication programme have shown how, in the poorest communities, the legitimacy of, and trust in, government is called into question and halts progress in getting results. Much can be learned from this experience and applied to the routine immunisation context for the future. Leveraging other social and health programmes with immunisation can build goodwill and trust. These programmatic considerations are for countries and regional offices to address. At global level, facilitation, spreading of best practice, diffusing innovations and establishing and maintaining peer-to-peer networks, are just some of the things that WHO and the big partner agencies can do to add value.

SURVEILLANCE

Over a period of 30 years, a system of surveillance for vaccine-preventable diseases, including polio, has evolved based largely on a platform of polio resources. This is now a network, including laboratories, which is managed in a coordinated way. At the very beginning of polio eradication, there was no separation between polio and the essential immunisation programme. Gradually, over time, polio became seen as the lead priority until the job was done. WHO headquarters made a strategic decision to separate the two entities. The biggest separation has been in the Eastern Mediterranean Region of WHO. The drift towards separate programmes for polio and other vaccine-preventable diseases has made the development and further extension of integrated surveillance very difficult.

Many countries have national surveillance to detect and track certain diseases, particularly polio, measles, neonatal tetanus, yellow fever and Japanese encephalitis. Some countries cover more diseases. The polio programme has funded and helped develop the surveillance function, including laboratory networks, surveillance officers, and investigations.

Communicable disease surveillance is the bedrock of successful public health action to prevent and control diseases and, with that, to save lives, protect populations, improve quality of life and even to safeguard the economic welfare of countries. Yet, it is not often an interest of policy-makers or those prioritising investments. It has been a technical or backroom function, essential but taken for granted. The news media tend to report on, and film, political leaders and celebrities administering polio drops, rather than showing them alongside frontline teams investigating children with paralysis. As a result, in public visibility and understanding, polio surveillance has been the poor cousin of vaccination.

It is important that this attitude does not come back to haunt polio eradication by undermining political commitment and ownership. In the pre- and post-certification periods, variable quality surveillance will wreck the eradication programme. Later, it could cause a resurgence of polio that would be a global catastrophe.

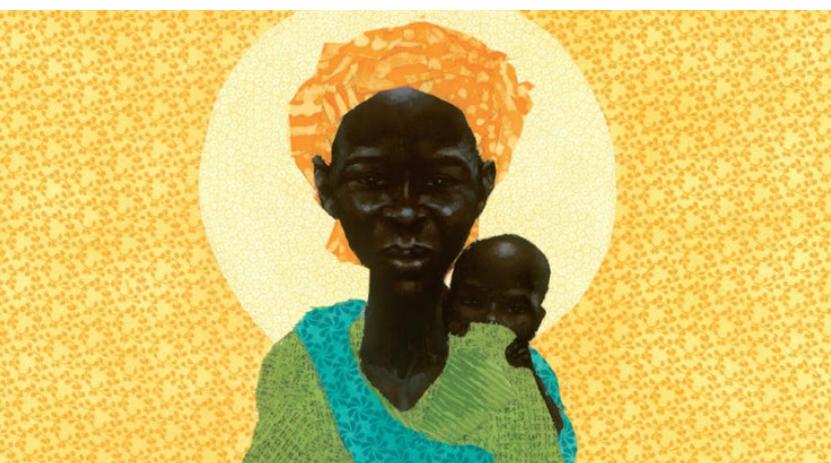
Will the current strategies for surveillance be sufficient to detect vaccine-derived poliovirus in the post-wild poliovirus period? A key challenge in the Region of Americas has been to

maintain quality more than 27 years after interruption of wild poliovirus transmission. Will environmental surveillance be a critical adjuvant to acute flaccid paralysis detection and laboratory surveillance? Current environmental surveillance uses sewage systems. Good systems are not in place in rural areas where there are high risks of vaccine-derived polioviruses emerging. High risk areas other than municipal sewage routes need also to be considered. It could take a long time to detect poliovirus circulation in such circumstances. Surveillance must be able to detect vaccine-derived poliovirus faster and better, and then respond more quickly. Without this, there will be big problems after the withdrawal of bivalent oral poliovaccine. Surveillance strategies need to be rethought. How much prime time thinking is the Polio Transition process giving to this? Political commitment and attention for adequate surveillance is certain to diminish after the last confirmed cases. This reality must be faced now. No one should bury their head in the sand. How are investments being

planned today to address this? Also, research and development in this area is insufficient. A fundamental guiding principle when embarking on any new strategy is identifying sufficient resources. No one knows how this will play out.

Following the Montreux meeting, there is increasing consensus on integrating surveillance with other diseases and how that might be operationalised on the ground. There is less clarity about how to design a seamless surveillance system from the community, to facility, to laboratory and to the environment. A purely facility-based approach is not enough. Surveillance has sometimes become specialised in niches to track particular diseases. This is different to setting up and implementing country-wide surveillance systems. Also, the thinking on surveillance does not seem to properly incorporate the community-based aspect, nor the necessary critical oversight and management.

Much of the work designing an integrated disease surveillance system





has been done by CDC. It is not yet clear what the WHO role will be in surveillance. As this work goes broader and deeper, it is important to ensure that national and subnational systems are built with the full capacity and capability to prevent and control diseases. It is vital also that they are designed in such a way that provides for inter-operability and data standards that ultimately enables true global surveillance and early recognition. Every effort should be made to embrace and include specialist surveillance systems for diseases that are beyond the traditional vaccine-preventable group as well as antimicrobial resistance. With the global health security agenda being such a priority in many

large donor countries, especially the United States, critical thinking needs to address how linkages are best designed and strengthened. Every opportunity should also be taken to use the latest methods of technology, science, and big data capture and analytics to enrich the possibilities that surveillance can offer.

There should also be strong awareness-raising initiatives at the national, regional, and global levels to ensure understanding of: the essential functions of surveillance and the economic and security consequences of failed surveillance. This will ensure proper commitments and support for building and maintaining surveillance systems.

POLIO OUTBREAK DETECTION AND RESPONSE

Staff whether working in countries, at regional office level, within the headquarters of the global agencies, and experts can become involved in the investigation of, and response to any public health emergency. This applies to outbreaks of polio but also emergencies involving measles, yellow fever and other diseases such as ebola and cholera.

For now, in the existing polio endemic countries, responsibility for coordinating and dealing with the investigation and control of outbreaks of wild and vaccine-derived poliovirus will remain the responsibility of the GPEI. Outbreaks in a range of countries, outside those that are endemic for polio, up until now, have also been handled by the GPEI. Recently, the



GPEI has started making use of the public health emergencies platform in outbreaks, working closely with the WHO's Health Emergencies Programme, for example in the Democratic Republic of Congo and in Niger. This has provided more flexibility and also greater outreach, through the United Nations bodies. This experience has been a pointer to how the Polio Programme might benefit from such a set up in the future.

Over time, the polio outbreak response is likely to move into a much broader emergency response platform, at country, regional and global levels. As this is extended and formalised, poliovirus outbreaks would be managed like any other outbreak (e.g. cholera, ebola). Indeed, many have suggested that a global response team is essential in a world where diseases can emerge and travel quickly across continents.

In practice, this will mean the transfer of responsibilities for managing poliovirus outbreaks from the GPEI to the WHO's Health Emergencies Team. There are those urging that this should happen sooner rather than later. Some national governments have already moved their countries' public health systems in this direction. They have made clear that they cannot afford to have vertical programmes. They are running public health emergencies and polio outbreaks as an integrated service.

Ultimately, outbreak response to polio, whether to wild, or to vaccine-derived, poliovirus does need to be housed in a broader outbreak and public health emergency response

capability within each country. The WHO Health Emergencies Team can provide the required infrastructure. For example, the current ebola outbreak in the Democratic Republic of Congo involves 300 WHO staff in the field, 400 vehicles, and multiple cold chains.

The transfer of lead responsibility from GPEI to WHO's Health Emergencies Team is therefore a matter of when, not whether. This transfer has always been part of Polio Transition thinking. Understandably, given the current state of polio eradication, the GPEI does not want to lose direct control of polio outbreaks at the moment. The stakes remain very high. Wild and vaccine-derived poliovirus outbreaks are part of the here and now. A year after the world is certified free of wild poliovirus, oral polio vaccine will be withdrawn to stop infections with vaccine-related poliovirus. This will also be a critical and dangerous period. Outbreaks will have to be identified very quickly and dealt with swiftly and effectively. Essential immunisation must also be improved, as vaccine-derived outbreaks are a result of low immunity. It is not just about good responses to outbreaks but about preventing them as well.

It is here that the choreography of the processes of polio eradication and Polio Transition is at its most delicate and intricate. To execute a simple "handover" would be to court disaster. It must be a carefully planned and articulated process, involving joint working and scenario planning over many months. Equally, there must be no misunderstanding about the respective roles and the relationship between the two organisational



entities. Programmatic specialists must provide the technical and scientific expertise to work from any emergencies platform. In outbreaks of other diseases like ebola, cholera, plague, and meningitis, experts in these conditions work hand-in-glove with the Health Emergencies Teams, providing detailed and specific advice on disease prevention and control. This also involves preparing guidance and writing standard operating procedures. The same relationship would apply after Polio Transition. Technical expertise in polio will be required to guide the response from the emergencies platform to a poliovirus outbreak.

This means that a source of polio technical and scientific expertise will

be needed for many, many years. Initially, this would be drawn from within the GPEI structure itself. Later, the expertise may be located within the Immunisation, Vaccines and Biologicals Department at WHO and within their counterparts at UNICEF, CDC, and at country level. Currently many of the staff working on essential immunisation within WHO have little expertise in polio outbreak responses.

This will require a change in approach. After completion of this stage of Polio Transition, it will be vital that an outbreak response should be able to use emergency response platforms rather than every Team just operating from their own platform for emergency response.

CONTAINMENT

The 71st World Health Assembly, in May 2018, passed a resolution to request all Member States to accelerate their efforts to reduce the number of laboratories and other facilities in which the poliovirus is held. At the time of the Montreux Polio Transition meeting, 27 countries had declared an intention to retain poliovirus Type 2, and these facilities would be called Polio Essential Facilities. That would mean 79 Polio Essential Facilities worldwide continuing to work with this poliovirus type, which is more than expected and presents a much greater risk than previously anticipated.

Furthermore, as inventories for all poliovirus Type 2 and poliovirus Type 1 and Type 3 are undertaken and completed, more Polio Essential Facilities are expected to be designated.

During the session discussing containment at the Montreux meeting, one delegate, an academic paediatrician based in the USA, is currently going through all her Type 2 poliovirus stocks to safely destroy them. CDC is providing expert support. There are 30,000 samples in freezers, because the research has been going on for many years. Detail is invariably insightful. It is salutary to reflect on this example. It is just one laboratory,

in one city in a very large country. It is being handled in an exemplary way. There are many such laboratories in many cities, hospitals, and university campuses around the world. Just one mistake in handling or destroying these samples of poliovirus could have catastrophic effects, leading to the reintroduction of wild and/or vaccine-derived poliovirus in human populations. Laboratories that do not choose to destroy their virus stocks and become Polio Essential Facilities will pose a long-term risk that must be managed effectively.

The staff in the GPEI leading the development of containment policy is trying to convince the 27 Member States with designated Polio Essential Facilities to reduce this number to a strict minimum. National governments need to be aware of the risks, and of how costly it will be to maintain facilities with sufficient levels of biosafety and biosecurity, to avoid any risk. This is not a theoretical risk. WHO should come out strongly on this. Last year saw two breaches of containment in Europe: one in the Netherlands, another in Belgium. Luckily, neither led to a polio outbreak. However, a serious outbreak of poliovirus in Europe would have been catastrophic and led to a public outcry and media furore.

WHO, guided by its scientific experts, has developed a Containment Certification Scheme that requires countries where Polio Essential Facilities are located to establish National Authorities for Containment. It is the responsibility of the National Authority for Containment to ensure that containment at Polio Essential Facilities is secure by conducting a risk assessment based on guidance provided in the Global Action Plan III (GAPIII), and to demonstrate to the Global Certification Commission Containment Working Group that the Polio Essential Facilities comply with it. So far, three National Authorities for Containment responsible for six Polio Essential Facilities have applied to the Global Certification Commission Containment Working Group to be certified as fit and proper places to hold the virus. There are very strict timelines. The 71st World Health Assembly resolution requires all countries wishing to retain polioviruses in Polio Essential Facilities to establish National Authorities for Containment by the end of 2018. By the end of 2019, all Polio Essential Facilities retaining Type 2 polioviruses should have submitted their request to their National Authority for Containment for a certificate of participation under the Containment Certification Scheme.

The process of establishing containment is underway, and those interests currently involved, including academicians, ministries of health of countries, the leadership of laboratories and Polio Essential Facilities and other facilities will continue to be engaged through National Authorities for Containment

over the long term. The management of the transition to a strong and stable system of containment needs to be institutionalised. Up until now, the policy on containment has been overseen by the senior leadership of GPEI as part of its role in polio eradication.

Two expert committees currently advise on the transition process for poliovirus containment: the Containment Advisory Group, which is a scientific Group determining the scientific basis for containment, and the Containment Working Group of the Global Certification Commission, which looks to determine whether the containment arrangements are in compliance with GAPIII and current Containment Advisory Group recommendations. However, containment is a long-term, permanent state and the management of it will need to pass out of the GPEI management structure.

If the concept of containment is broadened to encompass the management of high-risk associated with the retention of any pathogen, then there are many focal points within WHO. Different disease-specific programmes have an interest, and are stakeholders, in the containment “business”: for example, smallpox, influenza, tuberculosis, healthcare infection prevention and control, ebola and polio itself.

Within the WHO management structure, containment currently works in very vertical programmes where the pathogens are addressed in separate groups. Smallpox

containment involves viral security inspections of the smallpox virus held in the two global repositories. In WHO headquarters, this sits under the control of the International Health Regulations Group. They look at containment from that perspective. The approach to polio containment is being modelled closely on smallpox. The Tuberculosis Group has its own biosafety manual. Influenza has its own biosafety, biosecurity, and containment arrangements. These Programmes could benefit from a similar approach, and a common platform. All the groups could join together in one place where all these issues are addressed to the benefit of each individual vertical programme. Whichever organisational entity leads, it must have the authority and the power to enforce compliance. The two options under most intensive consideration for relocating responsibility within WHO for poliovirus containment are the Health Emergencies Team or the Group dealing Universal Health Coverage.

Will countries want to stockpile oral polio vaccine after interruption of

transmission? Could that lead to a containment breach? A stockpile will be needed and that, in itself, will have to be contained. At present, the GPEI owns and manages the oral polio vaccine stockpile but this will have to be considered as another aspect of containment transition. There is already stockpile expertise and experience within WHO's Emergencies Team – for other diseases such as yellow fever. However, the capacity is currently very limited. As discussed earlier, Gavi could have a role.

A stockpile could be maintained in a small number of global repositories but if countries wanted to have their own, this management would be more complex to safeguard. A further strand of Polio Transition work is needed to address the risks of bioterrorism arising from the poliovirus or its synthetic manufacture.

Currently, around US \$5 million per year has been earmarked within GPEI's new budget to deal with containment. Future funding models to maintain long-term sustainability of containment are still to be determined.



THE FUTURE ROLE OF THE GPEI

When the Polio Transition process started, one of the principal areas of concern was about the scheduled dissolution of the GPEI as an organisational entity. Over the years, the forceful oversight and unquestioning access to large amounts of donor funding, has made some in the global health community antagonistic to the GPEI; others have admired its unique governance structure.

The GPEI has been able to establish an element of “command and control” and management of performance and accountability, which is not present in many other global health programmes, which are based on a looser form of coordination and partnership. It can do something which United Nations agencies cannot normally do, which is to hold their own Member States to account and manage their performance. That is because of the GPEI’s special governance structure. The GPEI is more than a conventional global health partnership. Each of the spearheading polio partners (WHO, UNICEF, CDC, Rotary International, the Bill and Melinda Gates Foundation) has ceded its authority into this governance structure. The management is undertaken by senior staff members from all of these agencies and not separately.

The GPEI senior leadership can take decisions on behalf of their parent organisations rather than having to refer back for authority on a day-to-day basis. Of course, there are strong oversight mechanisms to ensure performance targets are kept in view and assure proper stewardship of resources. There are boards, committees, working groups and task teams to underpin this. The donors have put money into the GPEI “pot” on an on-going basis and for decades this has not been questioned because of the unwavering commitment to the polio eradication goal. Again, this donor behaviour is unusual in the affairs of global health programmes.

The governance strengths that have enabled the polio eradication programme to drive performance and achieve results have led some to ask why anything needs to change. Why could not the GPEI manage Polio Transition into the long-term, using its powerful structure and mandate to push the process to the limits of beneficial gain? Others point to the efficiency with which GPEI mechanisms deal with poliovirus outbreaks. Why could not the impressive global and regional machinery be the way that outbreaks of other diseases like measles are dealt with? Some of the countries that have

been long-term recipients of GPEI funding, and have built their wider public health infrastructure around it, ask: why take it away so suddenly?

Around 2014, the GPEI did take responsibility for starting the Polio Transition process. Their focus was especially on assisting countries in formulating plans to take over their externally funded polio assets, and to use this as a way to develop longer-term public health development plans for the country. There was also a strong message coming from many of the donors. They had bought into the goal of polio eradication, and despite it taking longer than ever anticipated, they and their funding will be with it until the end. However, donors have also made plain that there can be no automatic expectation that they would organise themselves around another centrally held funding pot to do everything that Polio Transition aspired to.

The Team that the GPEI established to oversee this early phase of the Polio Transition pathway, the Transition Management Group, made clear that it would only continue funding country Polio Transition activities until June of 2018. Also, it firmly stated that the GPEI would “dissolve” or “sunset” and that responsibility for Polio Transition would pass to “Future Owners”. The lack of a clear identity of these new “owners,” and mysterious and cryptic nature of the term itself, led to frustration and urgent calls for clarity. UNICEF and CDC moved quickly to locate their Polio Transition work within routine immunisation and health emergencies

departments, whilst WHO embarked on a review of the organisation’s overall management structure. The potential synergies within WHO have been slow to take shape. For example, the Health Emergencies, Essential Immunisation and other Teams were not fully engaged for some time. Also, WHO’s relationship with Gavi, already problematic, was moving forward slowly.

After the 71st World Health Assembly in May 2018, there was a lull in progress on Polio Transition planning. A debate on future arrangements for Polio Transition planning within WHO was taking place behind the scenes.

The meeting in Montreux allowed the scope and process of Polio Transition to be defined more clearly, but it came as a surprise to some – especially to donors – to learn that the GPEI was to be extended for another five years rather than be abolished. This raises the question: what will the role of the GPEI be under this fresh mandate? Will it carry on much as before? Will it be on a journey to dissolution, and divest its functions, along the way, some earlier and some later? What part will the renewed GPEI play in Polio Transition?

Clearly, the decision to give the GPEI a five-year extension was heavily influenced by the on-going battle with circulation of wild poliovirus in the three endemic countries. Equally plainly, WHO has now become the lead coordinating agency in the Polio Transition process. What is not clear is how the overlaps between the GPEI and WHO’s other relevant departments be handled.



The five-year extension of the GPEI must not, under any circumstances, be interpreted by polio funding supported countries as a signal to stop the planning to take over financial responsibility themselves.

A number of features are important in the governance of a global health programme. Firstly, clear measurable goals, or targets, are essential. In polio eradication, this is a strong feature, plus the overall goal is emotionally compelling. This is not so for Polio Transition. As mentioned in our previous report, nothing is yet clear enough and measurement is largely on a qualitative level. Also, the

communication so far has not made the programme's overall aim sound inspiring. Rather the opposite, it has mainly been about the important but dull tasks of reducing risks and finding money.

A second strand of a good governance structure is the presence of high-level committed leadership. This is again one of the characteristics of the polio eradication effort. It is not just on the agenda of health and development ministers, but of heads of states and governments as well. In addition, there is political alignment. It is not just a case of leadership from the

top, but it goes down through the regions and the districts and right to the local government levels. Also, non-governmental leadership is an important feature. The leadership of polio eradication has not been perfect but it has been a powerful factor in getting the world to where it is today. There is nowhere near this level of political leadership and commitment in Polio Transition. Without it, the process will not be the success that it should be.

Thirdly, since Polio Transition, like most other global health programmes, needs multi-agency, multi-sector involvement, a strong, integrated partnership will also be an essential component of governance. The key word is “integrated” since the model for Polio Transition that has emerged so far is not a unified structure, as is the current GPEI, but based on a lead agency coordinating others in a partnership. This is a looser form of governance and requires a very consultative approach to decision-making as well as in

policy-making, planning and resource allocation. There must also be a clear unambiguous description of the model for achieving change. The need for explicit operational rules is often left out of governance arrangements. This is a reason that programmes turn sour. The Polio Programme has traditionally been subject to internal political conflicts, “mood swings”, and resentments so it is important to get right this aspect of governance.

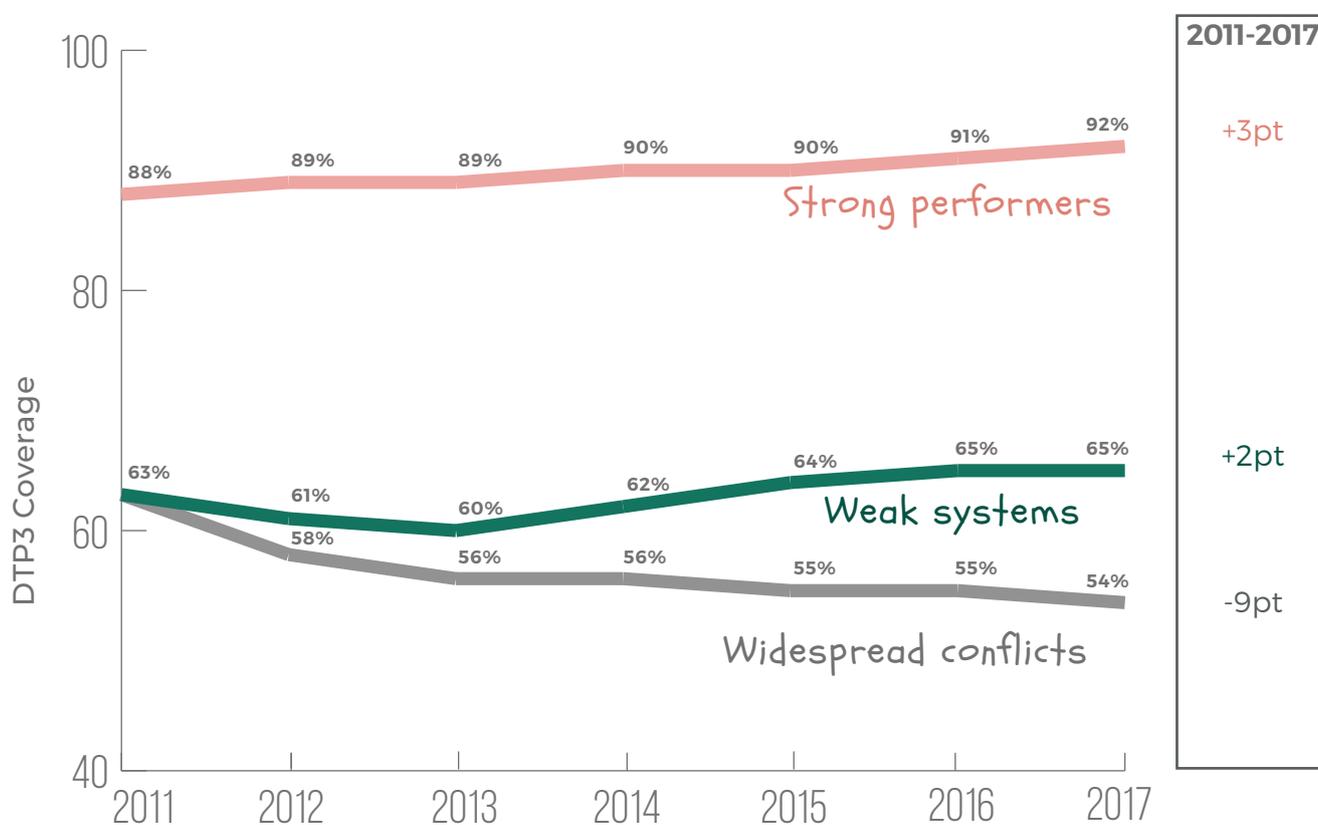
Finally, the GPEI has been almost unique in global health in that it has been able to hold its Member States to account, and confront poor performance. This has especially been possible with the adjunct of the Independent Monitoring Board. It is difficult to see how the current arrangements for Polio Transition can operate in such robust performance management terms without greater clarity on measurable outcomes.

A fundamental look at the governance of Polio Transition is essential.



FIGURES

Figure 1: Trends in essential immunisation performance* (2011-2017)



*In the 49 countries from Gavi's post-2020 portfolio.

Strong performers:

Bangladesh, Burkina Faso, Burundi, Cambodia, Côte d'Ivoire, Eritrea, Ghana, Rwanda, Sudan, Tajikistan, Zimbabwe and 13 more.

Weak systems:

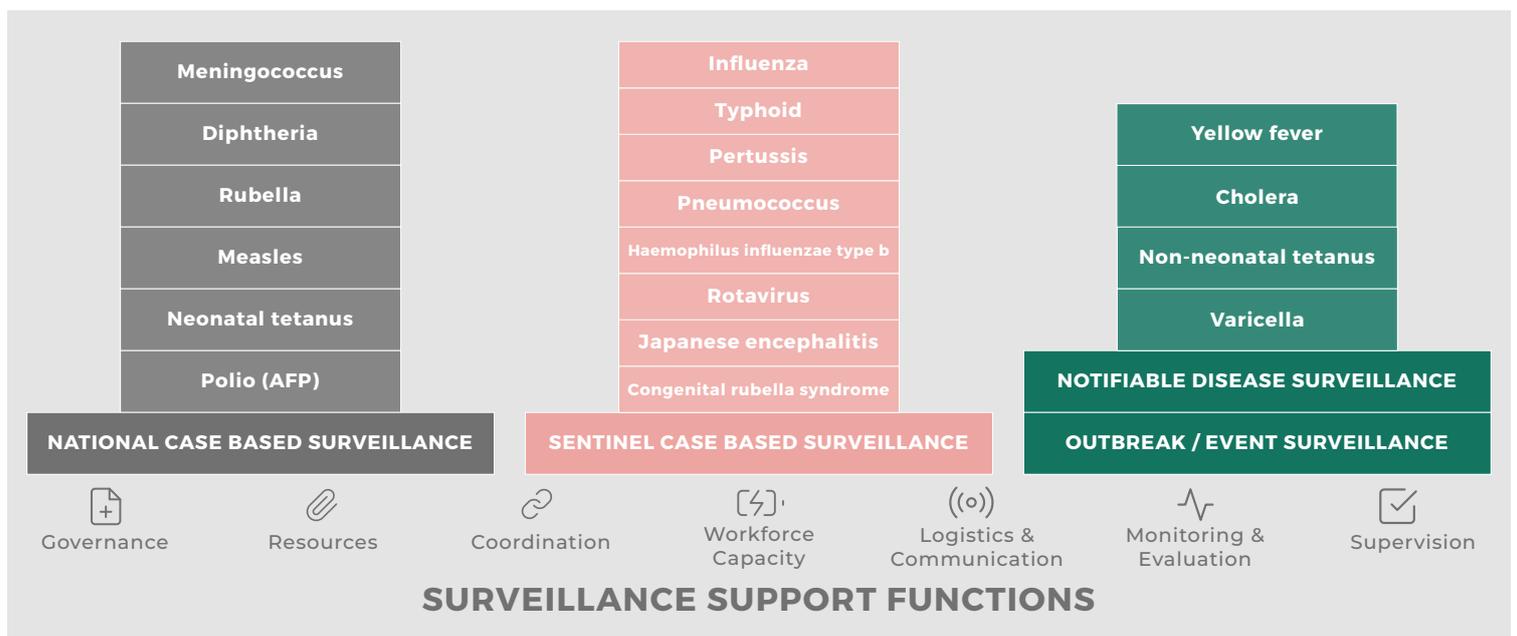
Chad, Comoros, Democratic Republic of Congo, Djibouti, Ethiopia, Guinea, Haiti, Madagascar, Mali, Mauritania, Niger, Nigeria and Pakistan.

Widespread conflicts:

Afghanistan, Central African Republic, Somalia, South Sudan, Syrian Arab Republic and Yemen.

Source: WUENIC Immunization Coverage

Figure 2: Building a comprehensive vaccine preventable disease surveillance system



Source: CDC Atlanta

CONCLUSIONS

When the GPEI began to discuss Polio Transition five years ago, and set up the planning and oversight arrangements, implementation of transition was foreseen as an orderly process that would follow in the footsteps of, rather than running alongside, a polio eradication initiative that was on a trajectory to interrupt global transmission of the wild poliovirus by 2017.

A number of work streams began. Countries were asked to draw up plans to fund, from their own budgets, polio assets (staff, facilities, equipment) that had been supported through external donor resources for many years. In many countries, these polio funds had cross-subsidised other public health programmes, most importantly essential immunisation and emergency response.

Technical, epidemiological and scientific expertise went into properly defining what would be required to take the world from the last case of circulating wild poliovirus, through formal certification, to long-term maintenance of a polio-free world. As thinking on this strand of Polio Transition progressed, the full implications of what would be required became clear and new strategies were written covering

areas such as containment and post-certification. These interconnected pieces of work became known as the “polio essential functions”.

Extensive work has been commissioned to document the legacy of the Polio Programme, both tangible and intangible. The opportunity was taken to use the elimination of polio, what had been learned, and the experience and assets accumulated over 30 years for a further strand of transition work. This has focussed on two areas in particular: firstly, building a new and more effective programme of immunisation to raise standards, especially in the poorest parts of the world; secondly, using the formidable system of surveillance and network of laboratories built-up under polio eradication to create a new integrated, surveillance platform for all important communicable diseases. The work is currently in progress.

The GPEI continued to develop the Polio Transition work during the period from 2015 to mid-2018 under the leadership of a Transition Management Group. This Group was abolished in July 2018. It is now clear that WHO has assumed the overall leadership for Polio Transition. The GPEI is no longer playing any

significant role in leading the Polio Transition process. The management functions have been absorbed into the GPEI partners' organisations. WHO is now the lead agency for Polio Transition. This is in line with major donors' wish to strengthen the role of WHO in overseeing the response to health emergencies. For donors, this new lead role for WHO is not reflected in the parallel launch of the first-ever WHO African Region Business Case for Immunization – which includes budgeting for both polio eradication and transition – and the on-going GPEI advocacy and resource mobilisation work.

The 71st World Health Assembly that met in May of 2018 charged WHO and its partners to move forward rapidly to implement a Polio Transition Plan. After a period of internal management review, WHO convened a meeting in Montreux, Switzerland in November 2018, to set out its approach and hear the views of stakeholders.

One of the most dramatic announcements made at this meeting was that the GPEI would be extended for a further five years. This initially caused confusion as to whether the plan to transfer polio and related responsibilities of the GPEI to other entities would still go ahead or be put on the back burner. Similarly, there was speculation that the plan to require national governments to take over polio-funded staff, assets, and facilities as part of new development plans might also be put on hold.

There is no absolute clarity yet on these issues. There is no doubt that the push for funded national plans will continue at a fast pace. Funds

allocated from the WHO base budget will be used to secure continuity of WHO staff who work on immunisation and surveillance. Further development of national plans has been devolved to regional and country offices of WHO and UNICEF. Global level will monitor progress and intervene when necessary. Given the serious setback in progress to interrupting wild poliovirus circulation globally, the persistent outbreaks of vaccine-derived poliovirus, and the lack of clear guidelines for tracking and predicting such outbreaks, it is clear that the GPEI will continue to directly manage the eradication process, much as it has always done. The work in stopping transmission of vaccine-derived polioviruses has not always been impressive. It is not clear how and when a transfer of any current responsibilities of the GPEI (e.g. outbreak response) to the WHO's Health Emergencies Team will take place.

Under the new WHO arrangements announced in Montreux, Polio Transition planning is, in effect, a coordination function. Staff appointed to the new Team has management, human resources and communications expertise rather than programmatic specialism (e.g. in polio, essential immunisation, health systems and emergency response). The Polio Transition portfolio is not embedded in a technical area of WHO's work. This is in contrast to the other GPEI partners. UNICEF and CDC that have put the leadership for Polio Transition planning in their immunisation divisions. Questions about WHO's management structure remain: How will this coordinating

entity actually work? What does coordination mean in practice? Where will the content knowledge and experience be drawn from? Does the new WHO Polio Transition Team have the capability to interrogate country plans when it makes its 20 field visits? Is this a realistic schedule? How will Polio Transition, as just one strand of the broader immunisation discussion, become a real influence in the shape of the new *Global Vaccine Action Plan*?

There is already considerable scepticism that countries' Polio Transition plans are anywhere near to being properly funded and ready for implementation. There is much work still to do. Also, it is not clear whether all the activities needed to eliminate the risks of vaccine-derived poliovirus outbreaks are being calculated into countries' transition plans. Nor, is it evident whether the Polio Transition planning and modelling is properly assessing the number and nature of vaccination campaigns that will need to take place leading up to successful certification.

There still seems to be an assumption that donors will continue their funding and just transition to essential immunisation. This cannot be taken as read. Moreover, it is important to fully understand the funding flows. For example, some donors give a large proportion of their funding for surveillance, not vaccination campaigns. Does transitioning to essential immunisation include surveillance?

The general global situation on immunisation is extremely worrying.

Coverage for essential immunisation is at a plateau, or progressively falling. This must be a critical consideration when discussing Polio Transition and a safe post-polio world. Considering immunisation at the sub-national level is vital. Without good data to shape performance at this level, and the deployment of techniques like microplanning, there will be no big gains in coverage at national level and no major impact on inequity either. This is especially so in less favourable environments.

The vision for Polio Transition cannot only be about what happens to the assets, people, and infrastructure. It must also be concerned with how to apply the lessons learned. Most of the work on capturing the learning from polio eradication has been undertaken by a special task group of the GPEI. Key areas of learning have been identified, for example:

- Reaching hard-to-reach populations;
- Getting to high-risk populations;
- Working in conflict zones;
- Harnessing global commitment to a cause;
- Engaging and mobilising communities and influencers;
- Cross-border cooperation;
- Tracking and reaching migrant and nomadic populations;
- Gender empowerment.

Some countries have commenced documenting their own lessons learned using a framework provided by WHO. A Polio Transition Resource Library has been established. A special issue of the *Journal of Infectious Diseases* was published (available [here](#)). This includes a wide range of



perspectives, including from Rotary International. Academic public health history work has been commissioned. There has been less discussion internally within WHO and this could also contribute to institutional memory and to strengthen the decision-making process for the polio future.

Compared to polio eradication, Polio Transition is not well understood in the wider global health world let alone by the public and media in Member States, nor by many government officials and political decision-makers. The huge number of discussions, meetings and presentations that have taken place on Polio Transition over the last few years have largely occurred within the “polio bubble”. For Polio Transition to be a success or, even better, reach its full potential, the widest possible awareness and engagement, especially of non-traditional polio organisations and individuals, is vital, there are many key stakeholders, who may not even realise their relevance to Polio Transition. The extent and quality of communication on Polio Transition so far has been very poor indeed. This needs to be remedied urgently.

Communication and public information need a different approach. Polio is not

just for the three remaining endemic countries, polio is a global problem. Every country, its leadership and its citizens, should have a very clear idea of what they have to do to ensure a polio-free world. That public consciousness should be a comprehensive one, that combines the commitment to end the game on polio, as well as the revalorisation of vaccines and strong support for surveillance as a means to sustain individual, collective and global health security. Such an approach to social communication will help many needed areas like putting on pressure to reduce the number of Polio Essential Facilities, improving performance on polio containment, strengthening essential immunisation, and improving information flows.

The world must not forget its duty to those affected by polio and the need to embrace the social support to disabilities. A polio-free world must recognise the suffering of those people who survived the disease and those who died, as well as the deep impact that polio has had on their families and the communities that they lived in. Tribute must also be paid to those polio workers who have fought tirelessly and courageously against the virus and to those who lost their lives in pursuit of the dream of polio eradication. This is a debt of honour.

KEY DECISIONS AND ACTIONS

The next step identified by the WHO Polio Transition Team at the end of the Montreux meeting was to convene a further series of four meetings (to take place well before World Health Assembly in 2019). The TIMB was told that these four meetings will plan action in each component of the transition process: a) Comprehensive vaccine-preventable disease surveillance; b) Outbreak response, including vaccine stockpile management; c) Immunisation, including oral polio vaccine withdrawal; and d) Containment.

After these topic-based meetings, there will be a follow-up consultation with key polio stakeholders prior to the 2019 World Health Assembly, to include a discussion on future governance options.

The TIMB has distilled a checklist of actions in moving forward:

1. **Take early action** in national Polio Transition planning to secure a sustainable, long-term, source of funding for polio infrastructure, staff and facilities that are delivering current essential immunisation programmes and carrying out surveillance activities.
2. **Involve** representatives of the GPEI, WHO's Essential Immunisation and Emergencies Teams, as well as Gavi, in the 20 country visits being planned by WHO's Polio Transition Team.
3. **Review** countries not on the priority list for Polio Transition but nevertheless pose a risk to polio eradication or to sustainability of essential immunisation and public health emergency capability; initiate the production of national plans as needed.
4. **Take urgent action** to identify and map the communities at subnational level where low essential immunisation levels threaten the pre- and post-certification stages of polio eradication.

-
5. **Take urgent action** to intervene in the identified communities to strengthen essential immunisation coverage levels.
 6. **Ensure** that polio expertise, programme delivery methods, governance and accountability processes will help to make the new *Global Vaccine Action Plan* more successful than its predecessor.
 7. **Review** the capacity and capability of current strategies for surveillance to detect vaccine-derived poliovirus in the post-wild poliovirus period, especially in environmental systems; give special attention to rural areas and urban slums where there are high risks of vaccine-derived polioviruses emerging.
 8. **Look critically** at the design, governance and oversight of the process of national Polio Transition planning now that it has been devolved to country office and regional office level; give particular attention to the benefits of bringing together Polio and Essential Immunisation Teams.
 9. **Go broader and deeper** in thinking to design, plan and build national and subnational surveillance systems with the full capacity and capability to support the prevention and control of vaccine preventable diseases.
 10. **Initiate** developmental work for inter-operability and data standards that will ultimately enable true global surveillance and early recognition of diseases by connecting national systems.
 11. **Explore** the logistics of incorporating specialist surveillance systems for diseases that are beyond the traditional vaccine-preventable group as well as antimicrobial resistance.
 12. **Seek opportunities** to use the latest methods of technology, science, and big data capture and analytics to enrich the possibilities that surveillance can offer.

-
13. **Start joint planning** work between the GPEI and the WHO Emergencies Team to enable the latter to take lead responsibility for poliovirus outbreaks; consider piloting an early joint response to any new vaccine-derived poliovirus outbreak.
 14. **Decide provisional timescales** for the change of lead responsibility for outbreak management.
 15. **Reduce** the number of polio containment facilities worldwide.
 16. **Follow-up** with National Authorities on Containment to ensure compliance with containment requirements.
 17. **Take a fundamental look** at the governance of Polio Transition in its entirety.
 18. **Design and build** a major wider communications and resource mobilisation programme as a successor to the GPEI's Polio Advocacy and Communications Team (PACT) to explain and promote the purpose and goals of Polio Transition and assign clear responsibilities (including to Future Owners).
 19. **Establish** policies and action to address the legacy of polio that has created an imperative to respond to the need for social support to disabilities, and to recognise the suffering of polio victims, their families and communities.
 20. **Formally and publicly recognise** the service given and lives lost by polio workers around the world.

