On 11 May 2022, the Polio Partners Group (PPG) of the Global Polio Eradication Initiative (GPEI) convened virtually the first in a series of conversations about the need to sustain and safeguard essential polio functions in the context of polio transition. The meeting was attended by 142 participants, comprising representatives of core GPEI partners and donors, WHO HQ, regional and country offices, representatives of national governments, international organizations, development partners, and civil society.

Opening Remarks

Co-chair Dr. Linda Venczel of PATH and Co-chair H.E. Ambassador Marc Bichler (Luxembourg) offered a warm welcome to meeting participants. Ambassador Bichler noted the aim of the discussion: to examine the present and future of the disease surveillance system, one of the greatest achievements of the polio eradication programme. The value of this system was recognized in the 5th Report of the Transition Independent Monitoring Board, which found that the biggest potential legacy of the polio eradication programme, apart from the eradication of polio itself, will be to sustain and further develop a comprehensive system of surveillance. Therein, we face both a challenge and an opportunity. On the one hand, we must ensure that polio surveillance is sustained, strengthened, and protected until and beyond eradication. At the same time, we must seize the moment to position this global public health good within the framework of the broader public health architecture. Ambassador Bichler underscored the timely nature of the discussion: Across the global health space, there has never been so much focus on surveillance, which has been brought to the forefront by the pandemic, and the knock-on effects on other areas of health. At the same time, as we look to strengthen global health security and move towards Universal Health Care, we have a strong imperative to build on the surveillance systems at hand. Finally, Ambassador Bichler noted that the deep dives are opportunities to openly share ideas, opportunities, and lessons learned, in pursuit of a successful transition that protects and strengthens the surveillance systems developed to end polio.

Dr Venczel expressed the hope that the discussion would serve as an avenue for addressing pressing issues within eradication and surveillance. Sustaining sensitive polio surveillance is critical for polio eradication, and the network can also be utilized for epidemic preparedness and response, for routine immunization, and for other surveillance functions. Dr Venczel concluded by noting that integration is the way forward to ensure that adequate surveillance is sustained in the long term. Clarity on what integration means, and how it will be funded, are vital to success.

Session 1 - Status of Transition (panel discussion)
Dr Roderico Ofrin, WHO Representative, India, reflected on the lessons learnt from India with regards to securing national commitment for transition, including domestic financing, and the challenges and opportunities that have arisen.

First, Dr Ofrin noted that government ownership of the National Public Health Surveillance Programme (NPSP, previously the National Polio Surveillance Programme) has grown over time. The NPSP has consistently proven that it has the technical expertise to effectively deliver polio eradication and routine immunization. It has the trust of the public, a wide remit and a large geographical presence. NPSP staff, comprising 1600 personnel, have vital skills which can be repurposed for broader areas of health, including surveillance, M&E and data verification. Through constant dialogue, the Government of India has increased its domestic contributions to maintain the network.

With regards to lessons learned, Dr Ofrin emphasized that the development of a strong transition plan, which can be continually referenced, especially during periods of government handover, can help to keep milestones on track, and ensure that the direction of travel is honored. Ensuring that functions are transitioned sustainably to avoid system weaknesses, and being aware of other investments being made into the health system are also crucial. Demonstrating progress made, 95% of NPSP staff are now funded by the Government of India. The emergency response conducted by NPSP staff in the acute stage of the COVID-19 pandemic further underlined their value. Looking ahead, the network has a valuable role to play in new initiatives, including meeting targets for measles and TB. Dr Ofrin concluded by highlighting the need for flexible funding. Transition is a collective responsibility, and we must step up to sustain the essential functions.

Dr Ndoutabe, Polio Team Lead, WHO AFRO, described where countries in the African Region are on the transition continuum, and the challenges and opportunities that have arisen.

Dr Ndoutabe began by articulating that transition remains a priority for the African Region. Work is coordinated through the Regional Steering Committee for Polio Transition, and there is strong collaboration between the polio, immunization and emergencies teams. Joint missions have been held to priority countries and there are renewed efforts to move towards an integrated approach to delivery. Polio transition planning remains a standing agenda item on African Regional Committee, and an update will be given at the next Regional Certification Meeting.

A key challenge is communicating around the dual need to tackle polio outbreaks, as well as move forward on transition. The funding environment has become more challenging following COVID-19, and planned elections in priority countries may pose potential challenges. Opportunities include leveraging available resource mobilization platforms to show progress, and improving communication. The implementation of the Mid-Term Evaluation of the Strategic Action Plan on Polio Transition offers an important opportunity to strengthen coordination and harmonize efforts across the region.

Dr Kazadi, WHO Representative, Nigeria, described the vision for transition in Nigeria, and what steps have been taken to get there. He also reflected on how the ongoing cVDPV response is impacting transition efforts.

Dr Kazadi thanked the Co-Chairs for the opportunity to speak from the Nigeria perspective. The Nigeria transition plan spans five years, with 2019 – 23 considered the first phase. However, the plan was only endorsed last year. The transition focuses on three key areas – routine immunization, primary health
care revitalisation, and surveillance and outbreak response. These pieces work in synchrony, and weaknesses in the system can have consequences. This was demonstrated in 2021. At this time, the expected imminent ramp-down in GPEI funding led WHO Nigeria to begin the process of handing over of essential functions to the government. However, the Government did not have the capacity to take on all the pieces, and this led to a slight decline in polio surveillance indicators. In response, a surveillance improvement plan was put in place, which has been successful. Looking ahead, polio transition in Nigeria requires full stakeholder engagement. The Nigeria CO has emphasised this at numerous meetings, including at the recent Gavi high-level meeting to Nigeria. A donor roundtable is being organized by the end of Q2, 2022. Integration efforts are also ongoing – for instance, around the possibility of having a joint EOC to respond to multiple diseases.

Dr Quamrul, Regional Advisor for Immunization, WHO EMRO, spoke on transition in fragile settings, noting that all polio transition countries in the Eastern Mediterranean region are conflict-affected. However, the polio programme’s footprint in the priority countries and the four additional high-risk countries is varied. In Iraq and Libya for instance, the MoH operates the surveillance infrastructure, but is supported by the polio programme in areas such as M&E and logistics support. In Somalia and Sudan, the whole surveillance structure, for polio as well as VPD, relies on the polio network. The countries are likely to rely on external funding for the foreseeable future. The immediate way forward includes recognizing and acting upon opportunities to integrate polio and VPD surveillance, and strengthen the communicable disease surveillance system. Governments will not be able to undertake this work alone – technical and financial support from partners and donors is vital to sustain the functions.

Dr Malik, WHO Representative, Somalia, described the risks and opportunities of polio transition in Somalia and the ways in which partners can support a smooth transition. Dr Malik suggested that the cVDPV outbreak will be stopped only if routine immunization coverage is improved. WUENIC data shows coverage is 48%, and 1 in 5 children miss out on vital vaccines. With each polio campaign, 70k to 100k children who are zero-dose are found. Failure to integrate polio campaigns with other antigen campaigns represents a missed opportunity.

A key risk in Somalia is the financing for transition. Somalia’s health budget is around $US4.7 million per year. However, the cost of sustaining the essential polio functions in Somalia is $US6.2 million every year. Therefore it is not feasible for the government to support the essential functions in the near term.

The polio transition plan focuses on using polio assets for three key areas: routine immunization, outbreak detection and surveillance, and support for public health care. This is work that the programme regularly carries out. It is vital to maintain these functions to improve healthcare and benefit Somalia in the long run.

During the discussion, Dr Venczel posed a question on how various stakeholders, in particular community health workers, should be engaged to sustain this critical network. In response, Dr Malik agreed that in African countries, community-based intervention is the way forward. For instance, in Somalia, pneumonia and diarrheal diseases are the leading causes of death for under-fives. Community health workers play a vital role to visit homes to identify these children, as well as providing other health advice. In addition, community health workers detected 46% of COVID-19 cases in Somalia. Dr Malik suggested that polio volunteers could be integrated to become part of this broader network. He also made the case that to sustain community health worker programmes, we must reach out to key funders, such as the World Bank, to raise awareness of the vital role they play to fill the broader health
workforce gap. In follow up, Dr Quamrul highlighted that some Ministry of Health employees in Yemen and Sudan rely on incentives paid by the polio programme. Looking ahead, we must ensure that alternative funding is secured to retain these staff, who carry out surveillance for multiple diseases. This will require a collective effort to convince partners, including Gavi, to invest in these countries. Finally, Dr Mulombo explained that the polio programme in Nigeria relies on surge capacity. There are more than 2000 community health workers sustained by donor funding. Transition in the country must be gradual, to prevent loss of capacity and sustain surveillance indicators.

On behalf of USAID, Ms Ellyn Ogden emphasized that donors would like to have a better understanding of the timelines and budget needs of countries and regions. It would be helpful for donors to be systematically invited to the regional and country level meetings where polio and transition are discussed. Also, in many hard to reach areas, civil society plays a big role and as to be a part of the conversation. Finally, as we saw in Nigeria, the ramp-down has a big impact on conducting polio work, while dealing with multiple competing priorities.

**Surveillance in transition countries**

**Status of polio surveillance in transition countries (Dr Jamal Ahmed, WHO Polio Surveillance Team Lead and Co-Chair of the GPEI Surveillance Task Team)**

Dr Ahmed provided a comprehensive overview of polio surveillance worldwide, including in transition countries. He first spoke about the GPEI Polio Surveillance Action Plan, which was developed following the launch of the GPEI 2022 – 26 Strategy. This covers the first half of the strategy period. A risk assessment of each country, focused on polio-specific risk, helped to inform this plan.

The priorities for Acute Flaccid Paralysis and environmental surveillance in 2022/24 include improving timelines, facilitating a skilled workforce, addressing subnational gaps, implementing M&E and improving and expanding the environmental surveillance network. Priorities for information and data management include assessing needs, upgrading information systems and shifting from paper-based to electronic data collection tools. A significant area of work is maintaining the global laboratory network.

Next, Dr Ahmed described global surveillance performance at country level. In most places, national polio surveillance indicators are recovering following the onset of the COVID-19 pandemic. However, whilst sub-national gaps are decreasing in Africa, they are persisting in Southern Africa, and parts of the South-East Asia and Western Pacific Regions. Overall, whilst surveillance performance varies between countries, there is no evidence that the variations are linked to transition. All countries, regardless of transition status, have received surveillance funds for the first half of 2022, and GPEI continues to be fully involved in supporting all countries to address surveillance gaps.

Dr Ahmed concluded by highlighting some of the key risks facing surveillance, and potential mitigation measures. These include risks associated with the GPEI funding situation, insufficient flexible funding and the possible decline in surveillance performance in transitioning countries, if momentum and commitment are not maintained.

**Status of VPD surveillance and integration (Dr Katherine O’Brien, Director, WHO Immunization, Vaccines and Biologicals Department)**
Dr O’Brien began by presenting the position of VPD surveillance within the framework of the Immunization Agenda 2030 (IA2030). A vision for comprehensive VPD surveillance was developed alongside IA2030, with the aim of ensuring that all countries have sustainable, high-quality VPD surveillance systems, supported by strong laboratories, which can detect and confirm cases and outbreaks and generate useful data to guide outbreak prevention and response, immunization programme management and vaccine policy to decrease the burden of VPDs. A key focus is on case-based surveillance, along with sentinel case-based surveillance and notifiable disease surveillance.

Next, Dr O’Brien contextualized the work of WHO’s Immunization, Vaccines and Biologicals (IVB) Department, and how this relates to transition. IVB leads surveillance for pathogen-specific and syndromic diseases where the main control measure is vaccines. They also lead on laboratory functions and the development of surveillance strategies for diseases with newer vaccines or vaccines in development. Dr O’Brien specifically referenced the Global Measles and Rubella Laboratory Network, which has evolved since 2000 on top of the Global Polio Laboratory Network. This is just one of several laboratory networks developed for VPDs.

Dr O’Brien subsequently spoke to the impact of COVID-19 on surveillance for polio and other VPDs, noting both the contributions of surveillance staff for the response, and the difficulties encountered in interpreting VPD surveillance data during the pandemic. There was likely a true decrease in transmission of some diseases during the acute pandemic phase, but this is obscured by the decline in surveillance sensitivity. To illustrate some of the key trends, Dr O’Brien presented data on measles prevalence. In the coming months, large measles outbreaks are expected, as there are a larger number of un- or under-immunized children in populations due to pandemic disruption. Another aspect of VPD surveillance is costing and budgeting. A budgeting exercise conducted for the IA2030 decade has estimated the costs of VPD surveillance, including for polio post-certification, to be $US3 billion ($US300 million per year on average). The vast majority of these costs are at the country level.

Finally, Dr O’Brien advocated for including integrated VPD surveillance as part of polio transition planning. Polio transition fits well with the IVB vision for a comprehensive VPD surveillance by 2030. However, success will rely in part on financial sustainability. As much of the VPD surveillance architecture is build on top of the polio network, these two systems are interlinked. Ideally, funding should support comprehensive VPD surveillance structures, rather than specific pathogens.

**GPEI Electronic data platforms (e.g. AVADAR / eSURV) and their future (Dr Kebba Touray, Technical Manager, WHO AFRO Polio Eradication Programme)**

Dr Touray presented an overview of AVADAR, a mobile phone application that aims to improve disease surveillance and immunization in high-risk, mobile and conflict-affected areas, by engaging a network of community informants to report suspected AFP cases. The system is in local languages, is user friendly, and utilises SMS to send information in areas with weak signal. It has led to an increase in the number of informants, more timely reporting of suspected AFP cases, and an increase in community awareness of AFP. Since its introduction, AVADAR has led to 133,272 alerts, of which 93% were investigated, leading to over 5000 AFP cases being confirmed (4.7%). It has also been used extensively for COVID-19. In countries where multiple surveillance applications are used, such as e-Surv and Integrated Supportive Supervision (ISS), results can be overlaid to give a fuller picture of the surveillance landscape.
Following the certification of Africa as wild polio-free, efforts have pivoted towards expanding the utility of AVADAR. The ‘AVADAR multi-disease tool’ is a new concept, which would leverage the existing AVADAR app to support multiple diseases. This would facilitate long-term sustainability and would increase efficiencies. Proposed next steps include focusing on developing and piloting the AVADAR multi-disease tool, strengthening and sustaining ISS and eSURV electronic surveillance platforms, and advocating with countries, other WHO programmes and partners who have already expressed strong interest in using AVADAR.

**Mr Patrick Briand (PATH)** provided further insights on AVADAR, noting that the tool is easy to deploy, as a limited number of people are required to monitor notifications. A greater challenge is ensuring a sufficient number of motivated and highly trained community informants, to ensure that data collected is high quality, and to prevent mistaken reports of AFP, which take time and resources to investigate. In addition **Ms Odgen (USAID)** noted that in the context of transition, the US views AVADAR as an important tool for polio and many other diseases. The US has supported community and facility-based surveillance for many years, and would be enthusiastic to partner with WHO and NovelT (the developer) to make the tool more useful at the community level, recognize the possible role for CSOs, and ensure that there is investment long into the future.

**Looking towards the Future: Group Discussion**

**Professor David Salisbury** (GSS Chair) shared his thoughts on what steps can be taken to ensure that polio surveillance indicators remain at certification level. The Global Certification Committee (GCC) identifies two elements that are critical to keep the world polio free: the interplay between quality of surveillance, and the duration of surveillance. To maintain high-quality surveillance there are several areas to look at. AVADAR may be one way to achieve insights. However, the quality of AFP detection is likely to decline in the years following eradication, especially in challenging contexts. By comparison, environmental surveillance may be a more dependable model for poliovirus surveillance in the years ahead. Even in many years time, we will have to remain diligent for containment breaches, and this is only possible if we are confident in our surveillance.

**Dr Sunil Bahl (Regional Advisor for Immunization, SEARO)** spoke to what actions and changes are needed in the polio transition process to incorporate the lessons learned, from the SEARO perspective. First, he noted that a one-size-fits-all approach to transition does not work. Second, transition has to be driven by country readiness. Different paces are needed for different countries, taking into account their context, and ensuring to build capacity along the way. Third, transition plans must contain clear milestones. Fourth, it is imperative that we help governments understand the value of surveillance for polio eradication and other immunization programmes, building on awareness built during the pandemic.

**Dr Hemant Shukla (Polio Team Lead, EMRO)** described best practices for improving surveillance in challenging settings, highlighting first the importance of ensuring that all partners and the health cluster are part of the reporting network and second, the importance of community based surveillance. It is also crucial to have flexibility in the surveillance system, to allow for creative solutions to collection or shipment problems. Dr Shukla described the experience of the polio programme in Djibouti, where polio was quickly detected following the launch of the first environmental surveillance site, underlining the necessity of ensuring surveillance in challenging settings. Finally, he emphasized the role of the regional office in closely monitoring country surveillance for any dips in quality, allowing for rapid follow up.
Co-Chairs Statement & Closure

In closing, the co-Chairs thanked participants for their engagement and summarized four key takeaway messages. First, country ownership and cross-cutting collaboration within and outside of WHO will be the key to success, but will also take time, and will rely on technical assistance and trust building. Second, while polio transition strategies are being adopted and implemented, the ramping down of capacities needs to be handled very carefully to prevent surveillance gaps. Third, we must consider the role of community health workers, who are vital not only for eradication but to serve broader public health, and conduct advocacy work to fund this area of work. Finally, success depends on fully funding the polio programme and providing flexible and sustainable financing to the WHO. In times of crisis, partners need to be able to adapt allocations.