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## CHAIRS' STATEMENT

### 16<sup>th</sup> High-Level Meeting of the Global Polio Partners Group (PPG)

12.30-16.30, Friday, 6 December 2019

Please note that meeting presentations are available on the [PPG website](#).

On 6 December 2019, the Polio Partners Group of the Global Polio Eradication Initiative (GPEI) convened the eighth annual technical workshop at the World Health Organization headquarters in Geneva, Switzerland. Immediately following, the PPG convened the 16<sup>th</sup> semiannual high-level meeting of polio eradication-stakeholders. The meetings were attended by over 60 representatives from core GPEI partners, stakeholders from governments at the ambassadorial, senior official, and expert level, and from international organizations, foundations, and donors.

#### **Welcome and Election of a Member State Co-Chair**

PPG co-chair, Professor Jon Andrus, welcomed meeting participants and provided an agenda overview. Ambassador Ken Okaniwa provided further welcoming remarks and commented that during his time as PPG co-chair, he gained a greater understanding of the complexities of polio eradication. He pledged his support – and that of Japan – to continuing the important work of GPEI. The co-chairs received unanimous support for the election of Ambassador Sally Mansfield as new co-chair of the PPG, and she thanked Ambassador Okaniwa for his contribution to the group. Ambassador Mansfield said that while we have come a long way, we still have a great distance to go, and that Australia was committed to supporting WHO and GPEI in their efforts to accomplish the important goal of polio eradication.

#### **Opening Remarks**

WHO Director General, Tedros Adhanom Ghebreyesus, thanked the PPG co-chairs and acknowledged Australia as a key advocate for mainstreaming gender equality in polio eradication efforts. He also thanked Sir Liam Donaldson and the Independent Monitoring Board (IMB) for the candid assessment provided in the 17<sup>th</sup> IMB Report. Dr. Tedros reflected on the milestones that have been achieved in 2019, including global certification of wild poliovirus type 3 (WPV3) eradication, and noted that the African region was likely to be certified as WPV free in 2020. He also applauded the successful pledging event in Abu Dhabi, which will fund the 2019-2023 plan, and the crucial contribution of vaccinators and frontline health workers to polio eradication efforts.

Given the increasing number of WPV cases in Pakistan and Afghanistan, Dr. Tedros had invited their Health Ministers to a recent Polio Oversight Board meeting. He commended the Pakistani health authorities for conducting a rigorous assessment of their polio program's performance, commenting that this demonstrated Pakistan's ownership of polio eradication, which would be essential for future progress towards elimination. He also recognized Dr. Hamid Jafari for providing new leadership on the front line for GPEI, from a hub in Amman,

Jordan. He emphasized that although high-level political leadership was important, community ownership and partnership were also critical to overcoming challenges.

Dr. Tedros acknowledged that the switch from trivalent oral polio vaccine (tOPV) to bivalent oral polio vaccine (bOPV) had resulted in more cases of circulating vaccine derived poliovirus (cVDPV) than were expected. He assured the PPG that a new strategy was being developed to mitigate the risk of cVDPV outbreaks, including making better use of monovalent oral polio vaccine type 2 (mOPV2) and replacing it with novel oral polio vaccine (nOPV), but acknowledged that there was a constrained supply of both vaccines. He concluded by stating that a renewed commitment and new sense of urgency from donors and governments was essential, and that the crisis at hand could not be met with the same level of engagement: all partners had to quickly come together to confront this problem.

### **High-Level Reflections on Current Progress: Sir Liam Donaldson, Chair of the IMB & TIMB**

Sir Liam referenced key themes from the [17<sup>th</sup> IMB Report](#), which provides insightful recommendations for addressing the problems currently afflicting the polio program. He stated that the present crisis presents in three components: the surge of wild poliovirus (WPV) in Pakistan; the growing immunity gap in Afghanistan; and global outbreaks of circulating vaccine derived poliovirus (cVDPV).

He then provided an assessment of the fundamental causes of the crisis. The oral polio vaccine (OPV) has become politically and socially toxic, and although it should be associated with humanitarian action, it has become politicized over the past five years, and had become a political bargaining tool for antigovernment protests. To address this in Pakistan, politicians must develop consensus and address the problem as a unified group without dissenting voices. Marginalized communities were also using OPV as a form of protest against their lack of access to basic health, immunization and other services. The traditional vertical public health program approach had brought us far, but it was now obvious that it would not bring us to our polio eradication goal. We needed to embrace a new “people-centered program,” informed by listening to communities, like the Pashtun, and responding to their needs. It was true that access constraints in Afghanistan needed diplomatic action to be addressed, but community engagement was also needed to increase acceptance of polio eradication. He noted that the “hub” model of support may be far removed from where people needed to be in the field and in the communities, not in Amman.

It was also becoming clear that the cVDPV problem could not be solved without polio vaccination becoming integrated in effective routine immunization program able to achieve high coverage. Shifting polio vaccination from a stand-alone activity, too often seen as a western priority unreflective of local needs, and integrating it with routine immunization and comprehensive health services would help to address vaccine resistance. Nigeria’s success in WPV eradication was a great accomplishment, but its problems with cVDPV had to be addressed through improved and sustained routine immunization.

In summary, the narrative of the polio program belonged to a different era. The current program required a more modern and realistic communication strategy that acknowledged the problems that we were facing. There was no alternative – we need to change direction now.

## **Poliovirus Detection and Interruption**

Mr. Michel Zaffran provided a global overview of the status of poliovirus detection and interruption. He indicated that seven years had passed without detection of WPV3, and certification was declared in October 2019. Three years had passed since the last detection of any WPV in Africa, and regional certification would be considered in June 2020. However, the Emergency Committee under the IHR had reconfirmed the risk of international spread of poliovirus as a Public Health Emergency of International Concern in September 2019. Compared to 33 cases of WPV1 in 2018, there had been 112 to date in 2019. Moreover, financial resource requirements were increasing rapidly with many outbreaks of vaccine-derived polio, primarily in sub-Saharan Africa, but now also in the Philippines, China, and Pakistan.

Dr. Jafari joined the PPG meeting by teleconference from Islamabad. He shared data showing an increase in positive environmental samples and WPV1 cases in Pakistan. In Pakistan, there were also cases of cVDPV2 concurrent with cases of WPV1. Dr. Jafari noted increasing vaccine hesitancy due to politicization of the vaccine, complex communication challenges and misinformation, and constantly changing dynamics of decision making. Operational challenges needed to be overcome with a major transformation of all stakeholder activities from global governance structures, down to “Union Council” administrative units in Pakistan. Efforts to transform the program in Pakistan included increased engagement with the highest political authorities, a financial commitment by the government of US\$160 million to complement the financial resources provided by the GPEI, formation of a strategic advisory group to depoliticize the program, management review and transformation, a revised communications strategy, and an Integrated Services Task Force to provide additional services in core polio reservoirs. The program was focusing on 40 super high-risk Union Councils. However, Dr. Jafari warned that interruption of WPV1 transmission in Pakistan was unlikely to occur in 2020.

In Afghanistan, the security situation remained a critical constraint, and the continued ban on house-to-house immunization limited campaign operations, which would prevent interruption of transmission. Dr. Jafari noted poor campaign quality in Kandahar City and large numbers of vaccine refusals in the South, as well as very low routine immunization coverage and poor access to basic health services. Kandahar City continued to be the primary engine of transmission, and a recent site visit had identified a number of actions for improvement, including: deploying surge personnel and improved workload distribution; better training for frontline health workers; undertaking a social mobilization review; and, delivery of integrated health services to the highest risk areas in Kandahar City. Continued dialogue with anti-government elements was underway to restore house-to-house campaign operations. Dr. Jafari called upon bilateral and multilateral partners to support revitalized engagement with communities.

The regional hub in Amman allowed for consolidation and intensification of resources for priority areas. The hub was working to analyze the impact of current strategies to inform decision making on future priorities and foster better cross-border collaboration between Pakistan and Afghanistan, especially for data monitoring/analysis.

Key points raised in the discussion included:

- That there had been improvement in tensions among Pakistani government officials, but political parties had not yet convened to broker consensus support for the polio program;
- There were concerns related to temporarily increasing access to essential health care and other services without a plan for sustaining them in the longer-term via integration;

- It was pointed out that routine immunization coverage was diminishing even in accessible areas of Afghanistan due to the restrictions imposed by anti-government elements (Kandahar 29.5% / Helmand 17.4% / Uruzgan 3.1%);
- Efforts to address the challenges highlighted in the IMB Report represented an opportunity to shift from vertical program approach to a horizontal program approach in line with the guiding principles from Gavi 5.0 and Immunization Agenda 2030.

## **Biologic and Public Health Basis of cVDPV Outbreaks**

### ***Summary of Workshop on cVDPV***

Professor Andrus reviewed the objectives and key findings of the workshop on cVDPVs. For the complete report, see the annex. The objectives of the morning workshop were:

- To assess current burden of disease caused by the occurrence of cVDPV;
- To understand the risk to the overall success of the GPEI program posed by cVDPV outbreaks;
- To communicate the approach of GPEI's key partners to addressing cVDPV risk;
- To evaluate the challenges to stopping transmission of cVDPV outbreaks; and,
- To consider the actions required to eliminate the risk of cVDPV outbreaks.

The morning's presentations and discussion addressed the emergence of cVDPV2, which had exceeded the expected number of cases predicted by extensive modeling prior to the tOPV-bOPV switch, because the modeling assumed that countries and GPEI would do higher quality outbreak response upon detection of cVDPV2s than occurred, and that mOPV2 administration would be decisive and controlled, instead of allowing mOPV2 use to trickle in at low levels for long periods of time. Most of these outbreaks had occurred in non-endemic countries, primarily in sub-Saharan Africa, and there was risk of spread from central Africa to West Africa. Outbreaks are also occurring in Southeast Asia and the Western Pacific regions. The data and experience indicated that it was imperative for national authorities to strengthen national immunization services, as well as ensuring adequate vaccine supply and strong surveillance. Simply put, circulation of cVDPVs did not occur in areas where population immunity achieved by strong routine immunization services was high. **To that end, strengthening routine immunization to ensure high quality and high coverage needed to be prioritized by everyone, everywhere.**

In addition, integration of services is in demand by populations that would include WASH and nutrition, as examples.

### ***Further Insights on cVDPV***

Dr. Mark Pallansch provided additional information about the new and evolving challenges related to cVDPVs. He explained that there had been 40 cVDPV2 outbreaks reported from 20 countries since the switch from tOPV to bOPV in 2016. This was the result of an accumulation of unvaccinated or under-vaccinated cohorts of children who were susceptible due to the switch, and the situation was compounded by poor availability of IPV. The frequency of cVDPV outbreaks was increasing, and these outbreaks were often genetically distinct from one another, which indicated intensifying genetic mutation within the virus. In addition to these discrete emergences, there is a risk of exportation, because many all countries now have birth cohorts of children with no exposure to OPV2 who will all contribute to transmission, including those who received IPV.

The scope of responses to these outbreaks was becoming limited by the depleting stock of mOPV2. An additional 55 million doses were expected to be available by the end of 2019, with a further 35 million doses per month available in 2020. Gavi had been critical in mobilizing support for these efforts. The emergence of cVDPV2 following withdrawal of OPV2 had led to a decision to suspend withdrawal of OPV3 following certification of WPV3. The question remains whether tOPV administration would provide less of a risk to cVDPV emergence than the current policy of bOPV.

### **Financial Resource Requirements**

Mr. Andre Doren presented on behalf of the Polio Advocacy and Communications Team and he shared his sincere thanks to all donors who were able to pledge at the Reaching the Last Mile Forum in Abu Dhabi. The pledging event secured commitments of US\$2.6 billion toward the US\$3.27 billion target. Mr. Doren and the PACT would work with donors to start monetizing pledges, building on the momentum of WPV-free Africa. The PACT would also continue to collaborate with the UN, emergency-response funding mechanisms, and with Gavi on IPV, which Gavi was funding independently. They would also work alongside countries to assess the proportion of budgets being allocated to cVDPV outbreak response, and the potential risks posed by this reallocation. Continuous donor updates on budget and strategy would be available, and feedback would always be welcome.

The discussion following the presentation on resource requirements addressed:

- The plan to secure domestic and in-country resources in addition to commitments made during the recent pledging event;
- The communications strategy, and particularly UNICEF's role in responding to more frequent press on cVDPV outbreaks, and the effort to take a more proactive approach by providing education sessions to journalists to promote accurate information sharing; PACT was available to provide communications support to any donor country in responding to press reporting; and,
- The unsustainable nature of funding to support integrated health services, and the need to stimulate conversation with the broader development community to advance this agenda.

### **Comments from Stakeholders**

Ambassador Mansfield moderated the high-level segment, during which stakeholders shared their views. All stakeholders expressed gratitude to the outgoing co-chair and words of welcome to the incoming co-chair.

*Regarding the polio program generally, stakeholders:*

- Acknowledged the polio program reached a critical inflection point in 2019, and that the recommendations of the IMB report must be taken very seriously;
- Lauded the strengthened collaboration between GPEI and Gavi;
- Commended the eradication of WPV3;
- Expressed gratitude to donors for a successful pledging moment in Abu Dhabi in November 2019;
- Encouraged a human-centered program shift;
- Applauded the focus on gender barriers;

- Suggested that the PPG serve as a mechanism to spur and measure progress in integrating polio with broader development assistance;
- Called upon PPG constituents to elevate the importance of integration in capitals (for those representing Member States) and with their own stakeholder networks (for non-state actors);
- Commented that polio vaccination must be embedded into broader health and social services to: a) integrate polio assets towards a more sustainable health platform; b) improve cooperation with impoverished, marginalized communities; c) eliminate cVDPV outbreaks; d) bring us closer to a polio-free world; and, e) advance primary health care; and,
- Urged core GPEI partners to work collaboratively to address the findings of the IMB report, and to work closely with other non-GPEI partners including the Global Fund and the Global Financing Facility.

*On the Pakistan/Afghanistan block, stakeholders:*

- Agreed on the fundamental importance of community engagement and partnership in Pakistan and Afghanistan through enhanced communication, engagement with religious and traditional leaders, and alignment with broader health and immunization services;
- Lauded the launch of mobile medical clinics in rural Pakistan to support the IMB recommendation to integrate more comprehensive health services in high-risk areas;
- Acknowledged that enhanced access to mobile populations along the Pakistan/Afghanistan border is critical;
- Regretted that changes in political leadership in Pakistan have compromised progress;
- Recognized that the continued ban on house-to-house immunization presents a serious hindrance to program operations in Afghanistan, and that this tactic did not stop transmission when it was used;
- Expressed concern about communication strategies, including risk communication, which must be improved to address negative perceptions of vaccination on the parts of health workers, families, and community leaders; encouraged UNICEF to lead in this area; and,
- Proposed that the next PPG meeting feature health officials from Pakistan and Afghanistan to comment on the practical actions needed to integrate polio with broader health services.

*On financing, participants:*

- Promised continued investment in immunization as a critical public health strategy;
- Encouraged the integration of polio with other routine immunization and health services, using Universal Health Coverage as a catalyst and framework;
- Expressed concern about costs associated with managing cVDPV outbreaks in sub-Saharan Africa and Asia; and,
- Requested GPEI to be transparent about resources required and trade-offs associated with redirecting resources to quell cVDPV outbreaks.

**Co-Chairs' Statement and Meeting Closure**

In her concluding words, Ambassador Mansfield commented that we need different partnerships and different perspectives to achieve old objectives, and that we must take to heart the lessons in the IMB report. She reflected on the enormous amount of goodwill and technical expertise within the program and encouraged all stakeholders to accept the hard truths faced in 2019.

Professor Andrus flagged that his 4-year term as PPG co-chair will end in June 2020, and that there will be an opportunity for PPG members to nominate a new non-member state co-chair in early 2020. He noted the candidacy of Dr. Linda Venczel, who presented to the PPG in the morning workshop. He then thanked the meeting participants and presenters for their participation and open discussion. Finally, he noted the date for the next PPG meeting is 19 June 2020.

## ANNEX

### Meeting Report: 8<sup>th</sup> Technical Workshop of the Global Polio Partners Group (PPG)

9.30-12.00, Friday, 6 December 2019

#### Welcome Remarks

Professor Jon Andrus, PPG Co-Chair, opened the session by welcoming all meeting participants to the 8<sup>th</sup> Technical Workshop of the Polio Partners Group. He thanked Dr. Stephen Cochi, Senior Advisor to the Director, Global Immunization Division, US CDC for moderating the discussion, and thanked the panelists for their time and effort. Professor Andrus then reviewed the objectives of the workshop:

- To assess current burden of disease caused by the occurrence of cVDPV;
- To understand the risk to the overall success of the GPEI program posed by cVDPV outbreaks;
- To communicate the approach of GPEI's key partners to addressing cVDPV risk;
- To evaluate the challenges to stopping transmission of cVDPV outbreaks; and,
- To consider the actions required to eliminate the risk of cVDPV outbreaks.

#### Michel Zaffran, Director for Polio Eradication, WHO HQ

Mr. Zaffran reported that in 20 countries, there were 45 outbreaks and 195 cases of cVDPV type 2 (cVDPV2) since the switch from trivalent to bivalent Oral Polio Vaccine (OPV) in April 2016. The emergence of cVDPV2 exceeded the expected number of cases predicted by extensive modeling prior to the switch. Most of these outbreaks occurred in non-endemic countries, primarily in sub-Saharan Africa, and there was risk of spread from central Africa to west Africa. Outbreaks have also occurred in Southeast Asia and the Western Pacific regions.

Mr. Zaffran assured that GPEI was coordinating with UNICEF to ensure the availability of monovalent oral polio vaccine type 2 (mOPV2), and that there was a corresponding surge in outbreak response. Mr. Zaffran shared that a new cVDPV strategy was being developed as an addendum to the Endgame Strategy, and that key components include short-term optimization of mOPV2 and future implementation of a novel OPV. The GPEI planned to share the strategy online ahead of the Executive Board meeting, when the Board will be asked to make an official decision and call upon member states to fully implement the strategy, which included rolling out novel OPV (nOPV) before it's officially approved.

Discussion following Mr. Zaffran's presentation addressed:

- Concerns related to the limited stockpile of mOPV2, which was necessary to respond to cVDPV2 outbreaks;
- Concerns about the availability and effectiveness of Inactivated Polio Vaccine (IPV) to respond to cVDPV outbreaks and the more highly trained personnel needed to administer IPV;
- Risks of additional vaccine-derived outbreaks related to withdrawal of OPV3 following eradication of wild poliovirus type 3 (WPV3);
- Timeline for release of nOPV following clinical trials; 100-200 million doses should be available next year;



- Timeline for GPEI sunset, which is expected to occur following global certification of eradication of WPV, despite effective response to cVDPV requiring a highly coordinated international effort, in addition to domestic engagement;
- Uncertainty and concerns about the extent to which affected (or potentially affected) countries were prioritizing responses to cVDPV given competing health threats that pressure their budgets and resources;
- Uncertainty about the timeline for reintroducing OPV2 to routine immunization systems, pending the availability and effectiveness of IPV and nOPV;
- Suggestion that bilateral donors advocate for strengthened preparedness and response among affected and potentially affected countries; and,
- Suggestion to expand environmental surveillance even while recognizing that the sampling methodologies available may not provide adequate data to inform technical plans.

**Mark Pallansch, Director, Division of Viral Diseases, US Centers for Disease Control and Prevention**

Dr. Pallansch’s provided insights on biology and molecular epidemiology of cVDPV. Dr. Pallansch serves as chair of the advisory group that assesses each new cVDPV outbreak. Dr. Pallansch indicated that modeling efforts in the first two years following the switch from OPV2 were accurate, but that the high number of cVDPV outbreaks observed in 2019 deviates significantly from predictions. Of note, multiple emergences of cVDPV2 in similar geographies (specifically central Africa) were in some cases independent from each other, and not related to the spread of a single outbreak. The new phenomenon of multiple points of emergence and increasing frequency of emergence indicate extensive and rapid genetic evolution of the virus. Additionally, outbreaks were still occurring in the usual manner, in which the virus spreads geographically from a single point of origin.

To better understand the new presentations of cVDPV, complete genome sequencing of all VDPV2 viruses in Central Africa was underway. Dr. Pallansch indicated that there was an unprecedented need for laboratory sequencing within the Global Polio Laboratory Network as additional sequencing is undertaken in Asia. Though all cVDPV2 outbreaks reflect the consequences of withdrawing OPV2 and continued use of mOPV2 with low coverage, the distinct features of each outbreak require highly tailored responses.

Discussion following Dr. Pallansch’s presentation included:

- Confirmation that cVDPV2 emergence is the result of reduced population immunity, whether due to the switch from tOPV to bOPV, or because of insufficient coverage;
- Confirmation that recombination of the poliovirus in the gut of an individual child is an indication of circulation, but does not affect the efficacy of the vaccine;
- Need to activate additional laboratories to meet the increased demand for genetic sequencing; and,
- Recognition that population immunity was geographically heterogenous, diminishing the effectiveness of modeling that does not account for heterogeneity.

**Stephen Sosler, Technical Advisor for Vaccine Implementation, Gavi**

Dr. Sosler offered a perspective on Gavi’s evolving response to cVDPV outbreaks. The partnership between GPEI and Gavi was greatly strengthened in the past 12 months, especially with the Gavi Board commitment to support IPV from core resources between 2019-2020 and further support through Gavi 5.0 (through 2025). Gavi recognized that the context of IPV usage had changed significantly in the face of cVDPV outbreaks. Although the

global supply of IPV has increased, approximately 40 million children were missed during the period of shortage that were now vulnerable to vaccine derived polio outbreaks, and there was an urgent need to catch up the birth cohorts who have not received any doses of IPV. However, the improved availability of IPV would not substitute for strong routine immunization coverage, and improvement of RI occurred in a different timeline and with different resources, including greater country ownership.

Discussion following Dr. Sosler's presentation included:

- Recognition that 40 million missed children was probably a low estimate, given the number of children missed through routine immunization systems;
- The importance of systematic integration of a birth dose in the polio program at country level and the possible role of a newborn coordinator within the GPEI program;
- The role of campaigns in identifying missed children and newborns as compared to the identification of zero-dose children through routine immunization; and,
- The necessity of leveraging outbreak response to jumpstart routine immunization to prevent future outbreaks (e.g. Papua New Guinea).

**Ian Lewis, Vaccine Contracts Specialist, UNICEF**

Mr. Lewis indicated that the purpose of the mOPV stockpile was to ensure adequate response to outbreaks when they occur following the removal of OPV from routine immunization systems. The current filled and finished mOPV2 stockpile of 8 million doses would be supplemented by 55 million additional doses by the end of 2019. However, increased demand will diminish this stockpile in 2020, and a further 188 million additional doses would be needed to fill this gap. UNICEF is actively working to secure these doses through all possible manufacturers. In addition to considering supplying tOPV in the second half of 2020, UNICEF is preparing contracts to secure nOPV supplies as soon as approval was received.

Mr. Lewis also shared that the annual IPV supply finally reached projected annual needs, and IPV was now being used in priority countries for catch-up campaigns. Sufficient IPV supplies were expected for 2020, with six million doses allocated for outbreak response, and 22 million doses additional doses allocated for catch-up campaigns. Ideally, there would be sufficient IPV supply to have a second dose available in 2021.

Discussion following Mr. Lewis' presentation addressed:

- Dose-sparing IPV was licensed in Denmark and was in progress for pre-qualification at WHO; Sabin IPV was expected to be prequalified in 2020 as well;
- The manufacture of nOPV was underway and about 100 million doses would be available in June 2020 and an additional 100 million available by August, with capacity for 35 million doses per month afterwards;
- Acknowledgement that nOPV would not be used in massive campaigns initially, and countries would have to agree to use nOPV on a small scale first and without extensive data being available; and,
- The available excess of IPV was prioritized for catch-up campaigns of missed children and the intensification of routine immunization with IPV, including consideration of administering of two doses

**Linda Venczel, Director of Global Health Security, PATH**

Dr. Venczel presented a project PATH led in the Democratic Republic of Congo that examined the challenging contexts of a cVDPV2 outbreak that was detected in 2017 and remained uncontrolled. Dr. Venczel noted that most cases of acute flaccid paralysis in this area of DRC are documented in children of unknown immunization status, zero-dose children, or partially vaccinated children who were being reached through campaigns, but not through routine immunization. The study team also found that during campaigns, families would refuse immunization for religious reasons, due to campaign fatigue, reliance on curative care, resentment about the lack of more comprehensive services. Mobilizing community and religious leaders, vaccinating children at nighttime, and meeting community needs more holistically (e.g. Vitamin A, bed nets) may help resolve these challenges.

Key lessons learned from the project included: government ownership of immunization was key to sustainability; that improved population immunity through routine immunization was critical; that satellite mapping enhanced microplanning; independent monitors enhanced OPV vial tracking and management and the performance of vaccinators; and that AFP surveillance was still weak.

Discussion following Dr. Venczel's presentation addressed:

- The importance of conducting campaigns at culturally appropriate times and better tracking of vaccine locations;
- The degree of government commitment needed to initiate this work;
- Integration of behavioral theory into the polio program, especially with respect to media and communications;
- The cost of integrated health packages – and those contributing – should be tracked to inform future efforts in this area;
- Tension between GPEI and communities due to lack of coordination at the provincial level, including evolving government focus on universal health coverage; and,
- Agreement that GPEI should move in this direction in other locations.

In his closure of the meeting, Professor Andrus summarized that the morning's presentations all indicated the imperative of strengthening routine immunization services with adequate vaccine supply and strong surveillance. He commended the quality of presentations and subsequent discussion. Finally, he thanked all stakeholders for their participation and invited them to return for the high-level meeting after lunch.