Executive Summary of Technical Findings
A robust monitoring and evaluation (M&E) system is a key component of a strong health system, able to respond to and provide quality health services across a diverse population. Similar to other disease-specific programs, HIV faces the task of aligning to WHO-led guideline changes as new scientific evidence on prevention and treatment emerges. With the current WHO recommendation of lifelong ART for all pregnant and breastfeeding women living with HIV, outcomes (including maternal survival and final infant HIV status) require monitoring through longitudinal data systems complemented with regular cohort analyses, as well as enhanced monitoring. Additionally, as we move toward the need for more strategic policies and programming to garner system and resource efficiencies, M&E systems need to be designed to be able to inform differences arising from age, sex and geographic trends as well as identify weaknesses such as sub-optimal commodity supply and testing quality.

In 2015, the IATT monitoring and evaluation working group (MEWG) finalized and disseminated the IATT B+ M&E Framework. One mechanism used to disseminate was to convene a 15 Country Consultation that took place in October 2015. Country participation was determined as follows: the eight 2015 priority countries (Cameroon, Kenya, Mozambique, Nigeria, South Africa, Tanzania, Uganda & Zambia) that contributed 70% of new infections among the Global Plan countries in 2013, three countries (Malawi, Rwanda and Zimbabwe) representing best practices from the region and four countries (Botswana, Cote d’Ivoire, DRC and Namibia) who are in the process of reviewing their M&E systems for B+ roll out. Each country team included representatives from Ministries of Health, United Nations Organizations, United States Government Agencies, Implementing Partner and Civil Society Organizations; while facilitators came from Center for Disease Control and Prevention (CDC), Elizabeth Glaser Paediatric AIDS Foundation (EGPAF), Health Information Systems Program (HISP) Uganda, International Center for AIDS Care and Treatment Programmes (ICAP) at Columbia University, Joint United Nations Programme on HIV/AIDS (UNAIDS), University of California San Francisco (UCSF), United Nations Children’s Fund (UNICEF), University of Oslo, United States Agency for International Development (USAID) and World Health Organization (WHO).

As a result of this consultative process, a number of key agreements were reached.

10 key agreements among 15 countries and global partners in attendance

1. **Limited integration of ART, PMTCT and MNCH M&E systems to date**
   Progress has been limited on the integrating of ART, PMTCT and MNCH M&E systems over the last 4 years in most countries. This may be due to the fact that ART, PMTCT and MNCH programmes often run as separate parallel programmes with minimal joint coordination efforts. Global partners and the 15 countries in attendance agreed integration of these systems will be central to monitoring the adoption and roll out of Option B+ programmes.

2. **Importance of cohort monitoring for B+ retention data**
   Cohort monitoring systems are necessary to obtain programme retention data. Longitudinal registers are critical to being able to conduct cohort monitoring in a paper-based system.

3. **Recommended cohorts for B+ M&E**
As outlined in the IATT’s B+ M&E Framework, there are three recommended PMTCT B+ cohorts of interest—a maternal ART cohort, a maternal ANC cohort, and a HEI (birth) cohort. Each cohort requires a separate longitudinal register.

4. **Additional cohorts under consideration: mother-infant pair (MIP) cohort**
   While the IATT’s B+ M&E Framework recommends separate maternal and HEI (birth) cohorts, some countries (Côte d’Ivoire, Democratic Republic of Congo and Tanzania) have adopted or are planning to adopt a single MIP cohort and use a single MIP register. The benefit of an MIP register is that it allows for joint tracking of the mother and her infant using one tool. While an MIP register is useful for follow-up it is not well designed for distinct monitoring of maternal and HEI outcomes, which requires defining of separate cohorts (i.e. month of ART initiation, or month of infants birth). Further evidence is urgently needed to determine the effectiveness of these registers for cohort monitoring and retention outcomes as countries pilot and scale up these approaches.

5. **Consensus on a definition of maternal ART retention—to address issues with early retention**
   Maternal ART retention is defined as the proportion of HIV positive pregnant and/or breastfeeding women on ART retained on treatment at 1, 2, and 3 months post ART initiation (early retention), and then at 6, 9 and 12 months post ART initiation. Going beyond this retention would be monitored under adult care and treatment programmes at 24, 36 and 48 months post initiation.

6. **Consensus definition of HEI retention**
   HEI cohorts should be monitored as a birth cohort—as outlined in the IATT B+ M&E Framework. HEI retention is defined as monitoring at specific time points, of all children born to HIV positive mothers enrolled and benefitting from services along the care continuum, from birth to final outcome.

7. **Enhanced monitoring is critical during early Option B+ scale up, complimentary enhanced and routine monitoring systems may have a role in improving programme quality**
   Enhanced monitoring of a critical set of indicators during early implementation of B+ can help assure quality programme scale up. Enhanced monitoring should be done through a purposeful sampling approach. An enhanced monitoring system, while it may set up parallel reporting systems in the short term can play an important role in strengthening routine reporting and data use during B+ scale up, towards improving programme quality. Some countries have demonstrated the potential for these systems to be integrated with national monitoring systems (DHSI2).

8. **Developing unique ID’s to link mother-infant pairs is a secondary priority**
   While the importance of implementing unique IDs to link MIP’s across services and geographies is acknowledged, operationalization needs to be considered within the context of individual countries. It may be more feasible to implement unique identifiers for mothers and infants in separate cohorts, or in combined mother-infant pair cohorts, in geographies that are taking electronic data systems to significant scale. While electronic data systems are considered and brought to scale, operationalization of effective paper-based cohort monitoring systems should be prioritized over the move to implementation of unique IDs.
9. Requirements for dashboard set up, its utility and value in data use for decision making
DHIS2 and other available data management systems can provide dashboards (systems to visualize data) tailored to different user profiles and different levels (national/subnational). DHIS2 is the most common platform being used for dashboards in countries. Countries require support to scale up and optimize use of DHIS2 to facilitate the use of dashboards to strengthen data use.

10. Role of cascade and sub-national analysis in PMTCT programme monitoring and evaluation
Cascade analysis is important for identifying leaks in the PMTCT service cascade, which informs priority interventions for programme improvement. Sub-national analysis of program data informs geographic variability in disease burden and programme leakages. Having sub-national data helps target specific geographies or population, and focus interventions. Both cascade and sub-national analysis can influence policy and strategic programme shifts; as well as justify allocation of limited resources. Countries require support through provision of step-by-step guidance on methodology for cascade and subnational analysis.

These agreements provide a framework for countries to prioritize actions towards building of robust monitoring and evaluation systems. It is acknowledged that there remain knowledge, experience, guidance, resource and system gaps. The IATT will work with country governments and partners to address these through its mandates of coordinating and tracking the provision of technical assistance, monitoring and tracking progress of country led implementation, and developing, updating and disseminating operational and normative tools and guidance; all towards prevention and treatment of HIV in pregnant women, mothers and children.