Translating Technical Support Into Country Action: The Role of the Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers, and Children in the Global Plan Era

Chewe Luo, MD, PhD, Gottfried Hirnschall, MD, MPH,† Jessica Rodrigues, MS,* Sostena Romano, MSN, MBA,* Shaffiq Essajee, MD, MPH,† Braeden Rogers, MPH,* Elizabeth McCarthy, MPH,‡ Albert Mwango, MD, MPH,§ Nalinee Sangrujee, MPH, PhD,‖ Michelle R. Adler, MD, MPH,¶ James C. Houston, MD, MPH,‖ Judite O. Langa, MD, MPH,# Marilena Urso, MD,# Omotayo Bolu, MD,** Gilbert Tene, MD,** Jean B. Elat Nfetam, MD, MPH,†† Etienne Kembou, MPH,‡‡ and Benjamin R. Phelps, MD, MPH§§*

Abstract: While the Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers, and Children (IATT) partnership existed before the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive (Global Plan), its reconfiguration was critical to coordinating provision of technical assistance that positively influenced country decision-making and program performance. This article describes how the Global Plan anchored the work of the IATT and, in turn, how the IATT's technical assistance helped to accelerate achievement of the Global Plan targets and milestones. The technical assistance that will be discussed addressed a broad range of priority actions and milestones described in the Global Plan: (1) planning for and implementing Option B+; (2) strengthening monitoring and evaluation systems; (3) translating evidence into action and advocacy; and (4) promoting community engagement. This article also reviews the ongoing challenges and opportunities of providing technical assistance in a rapidly evolving environment that calls for ever more flexible and contextualized responses. The effectiveness of technical assistance facilitated by the IATT was defined by its timeliness, evidence base, and unique global perspective that built on the competencies of its partners and promoted synergies across program areas. Reaching the final goal of eliminating vertical transmission of HIV infection and achieving an AIDS-free generation in countries with the highest HIV burden requires that the IATT partnership and technical assistance remain responsive to country-specific needs while aligning with the current programmatic reality and new global goals such as the Sustainable Development Goals and 90-90-90 targets.

Key Words: technical support, IATT, EMTCT, global plan

(*J Acquir Immune Defic Syndr* 2017;75:S7–S16)

From the *UNICEF, New York, NY; †World Health Organization, Geneva, Switzerland; ‡Clinton Health Access Initiative, Applied Analytics Team, Lusaka, Zambia; §Ministry of Health, Lusaka, Zambia; ‖Centres for Disease Control and Prevention, Atlanta, GA; ¶Centres for Disease Control and Prevention, Kampala, Uganda; #Centres for Disease Control and Prevention, Maputo, Mozambique; **Centres for Disease Control and Prevention, Yaounde, Cameroon; ††National AIDS Control Committee, Yaounde, Cameroon; ‡‡World Health Organization, Yaounde, Cameroon; and §§United States Agency for International Development, Washington DC.

Supported by the U.S. President's Emergency Plan for AIDS Relief through the U.S. Centers for Disease Control and Prevention.

The authors have no funding or conflicts of interest to disclose.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of UNICEF, the World Health Organization or participating federal Agencies, including the United States Agency for International Development and the US Centers for Disease Control and Prevention.

Correspondence to: Chewe Luo, MD, PhD, UNICEF House, 3 UN Plaza, New York, NY 10017 (e-mail: cluo@unicef.org).

EVOLUTION OF THE IATT PARTNERSHIP AND TECHNICAL SUPPORT

The formation of the Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers, and Children (IATT) dates back to the late 1990s. Its mandate originally was to support translation of scientific evidence into practice, though its scope broadened later on.[1] After the release of the Pediatric AIDS Clinical Trials Group 076 (PACTG 076) efficacy results in 1994, the results for a number of randomized clinical trials in different settings were published. In particular, the short-course zidovudine trials in Côte d'Ivoire and Thailand demonstrated the feasibility of providing antiretroviral medicines in developing countries during the risk periods of pregnancy, labor, and delivery, and postpartum, and how they could markedly reduce the risk of mother-to-child HIV transmission (MTCT) among both breastfeeding and nonbreastfeeding populations.[1–5] The results of these trials and subsequent evaluations spurred the formation of the IATT.

In 1998, UNAIDS, the United Nations Children's Fund (UNICEF), and the World Health Organization (WHO) launched pilot projects for the prevention of MTCT (PMTCT) in 11 resource-constrained countries to assess the feasibility of integrating HIV testing and delivery of antiretroviral medicines into maternal, newborn, and child health (MNCH) services. These

pilot projects were subsequently evaluated by Horizons an implementation research consortium led by Population Council.[6] This collaboration laid the groundwork for the IATT partnership, as the implementation of these studies provided the scientific backbone and political commitment to demonstrate the viability of delivering PMTCT services in developing countries. Consequently, the IATT was created the same year and comprised the Joint United Nations Programme on HIV/AIDS (UNAIDS), UNICEF, the United Nations Population Fund (UNFPA), and WHO to provide coordinated support to these country efforts. The results of the Horizons pilot projects, which confirmed the feasibility and acceptability of providing antiretroviral medicines for PMTCT in resource-limited settings in 2001,[7] propelled the United Nations General Assembly to set specific targets that shaped future IATT work to scale up PMTCT services.[8] In 2001, the IATT expanded to include non-UN partners; its current membership is over 30 partners. The IATT partnership comprises UN agencies, bilateral donor agencies, research institutions, and nongovernmental and civil society organizations.

Over the years, the IATT has provided technical assistance to national governments through country consultations, (country visits by a single IATT partner), joint missions (country visits by several IATT partners at the same time), global advocacy joint missions, and guidance documents to inform programming and catalyze implementation, as well as through high-level meetings to mobilize political commitment.[9] For example, the IATT held a High Level Global Partners Forum in Abuja, Nigeria, in 2005 and issued the *Abuja PMTCT Call to Action: Towards an HIV–Free and AIDS-Free Generation*.[10] In 2007, the IATT developed a guidance document on the scale-up of PMTCT, with the goal of universal access to treatment and eliminating HIV and AIDS among children. A High Level Partners Forum in South Africa endorsed this document and helped to shape responses in countries.[11]

IATT ADAPTS TO THE GLOBAL PLAN ERA

The launch of the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive (Global Plan) in 2010 provided a renewed mandate for the IATT. In 2011—with funding from the Canadian Department of Foreign Affairs, Trade and Development (DFATD), the United States President's Emergency Plan for AIDS Relief (PEPFAR), UNICEF, and WHO—the IATT was reconfigured (as depicted in Fig. 1). The new structure featured 4 dedicated global and 2 regional staff who were based in UNICEF and WHO to support its 3 mandates: (1) to update and develop normative and operational guidance; (2) to track and monitor global and country progress toward the Global Plan targets; and (3) to coordinate technical support to countries.

The IATT structure and its Secretariat had to be nimble yet focused. To align with the IATT's core programmatic focus and respond to technical assistance requests, the 7 original IATT working groups were consolidated into 4 working groups composed of technical experts from various IATT partners working in the following areas: (1) Community Engagement; (2) Maternal Health/Family Planning/Option B+; (3) Child Survival; and (4) Monitoring and Evaluation (M&E). The reconfiguration of the IATT also entailed a shift to a more outcome-oriented focus, centered on tracking and publicizing global and country progress toward the Global Plan targets. The Executive Committee, led by UNICEF and WHO comprised a diverse representation of IATT partners who played a critical role in articulating the strategic direction of the partnership. Quarterly updates and reports to the global steering group led by UNAIDS and PEPFAR was an important feature of this reorientation that promoted greater accountability. Furthermore, regular communication with UNICEF and WHO focal points in each of the initial 22 Global Plan priority countries ensured that IATT global efforts were informed by country priorities and needs.

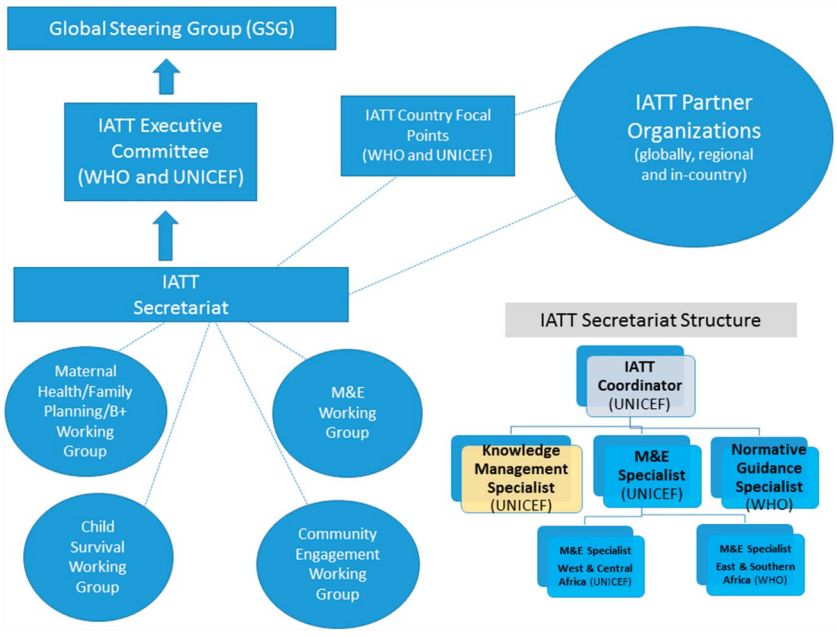

FIGURE 1. Structure of the IATT.

All these elements converged to improve the responsiveness, relevance, and effectiveness of the IATT.

PROGRAM AND POLICY SHIFTS THROUGH IATT PROACTIVE AND REACTIVE TECHNICAL ASSISTANCE

Timely and effective implementation of normative recommendations requires political will and resources to adopt a wide range of interventions, including infrastructure and capacity development, commodities for the rollout of services, program monitoring, impact evaluation, and implementation research.[12] Technical assistance should be aligned with these elements. Figure 2 illustrates the spectrum of technical assistance activities to help meet these needs.

An effective mechanism for technical assistance should be both proactive and reactive, dynamically addressing the needs within the context of the national setting, including using models of South–South technical support (where countries learn from each other). Throughout its history, the IATT has provided these types of support in response to requests from national programs—what could be termed reactive technical assistance. As a forum that allows coordination and communication among many global stakeholders, the IATT also has taken a proactive role, informing ministries of policy shifts and new technologies, sharing best practices, providing training through virtual webinars, mobilizing resources, and promoting programmatic changes in service delivery.

TECHNICAL ASSISTANCE IN SUPPORT OF THE GLOBAL PLAN, 2009–2015

Given the breadth of technical expertise across the active IATT partners, the IATT Secretariat was a natural mechanism for providing coordinated technical assistance to countries. For example, through a grant to 1 of its members, the IATT provided technical assistance to 20 of the 22 Global Plan countries to develop costed plans for the elimination of MTCT (EMTCT). In addition, the IATT developed joint operational guidance and tools for monitoring and evaluation, Option B+ rollout, and community engagement to catalyze implementation. Support was tailored to country requests. Since 2012, a total of 37 formal requests for technical assistance from 14 countries have been submitted to the IATT Secretariat.[13] Twenty-eight percent were for data-driven planning, 16% were for strengthening monitoring and evaluation systems, 16% for program evaluations/reviews, and 12% for planning and strategy development.[13] In addition to central requests for technical support, other IATT partners—namely PEPFAR and its implementing partners—directly provided and funded ongoing technical assistance in priority countries (which because of its breadth and scope was not always captured). PEPFAR also significantly contributed to the IATT's development of key tools and guidance. The following section discusses the technical assistance that the IATT provided in each of these areas.

Drafting and Costing National EMTCT Plans

Developing costed national plans for EMTCT was one of the first-year milestones of the Global Plan in 2010. Guidance to assist countries in costing their national EMTCT plans was provided at an IATT-convened workshop held in South Africa, attended by 17 countries using 6 included 6 existing costing models developed by partner organizations. The models included: Spectrum (Futures Institute); the PMTCT and Pediatric Impact and Costing Model (Clinton Health Access Initiative); the Costing Tool for Elimination Initiative (National Center for Global Health and Medicine, Japanese Bureau of International Health Cooperation); the PMTCT Cost Estimation Tool (Elizabeth Glaser Pediatric AIDS Foundation); the PMTCT Costing Tool [Institut de Santé Publique d'Épidémiologie et de Développment (ISPED)/UNICEF]; and the RAMP model (Centers for Disease Control and Prevention (CDC)/ICF International). Following the workshop, the IATT remotely provided technical assistance on the use of the models and review of the cost projections. Nigeria, Zambia, and Zimbabwe also received in-country technical assistance for more in-depth economic and financial analyses.[14,15] Box 1 details Zambia's costing exercise experience. In addition, the Clinton Health Access Initiative (CHAI), one of the IATT partners, provided technical assistance for Zambia to cost their revised pediatric antiretroviral therapy scale-up to accommodate the shift from treating children under the age of 5 years to treating all

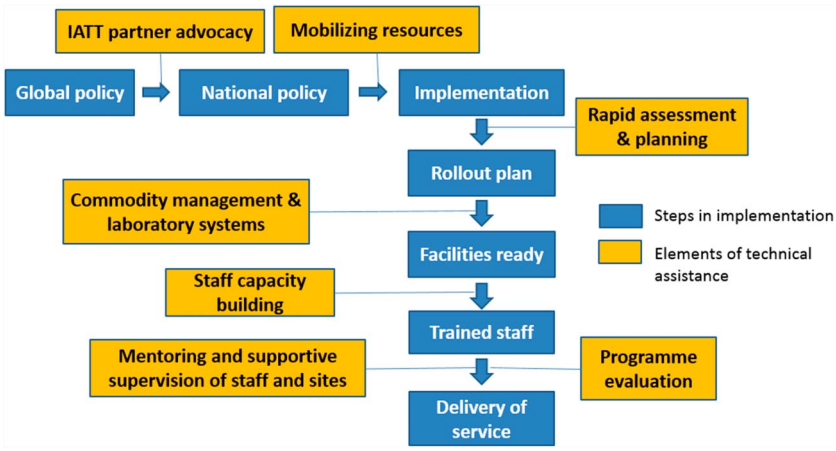

FIGURE 2. The pathway to implementation of health policies and the role of technical assistance.

children <15 years of age.[16] By consolidating costs across the initial 22 Global Plan countries, the IATT estimated the overall resource need to be US $4.776 billion, which helped to inform global resource mobilization for the Global Plan.[17]

BOX 1. Collaboration on Costing the National Plan to Eliminate MTCT of HIV in Zambia

After Zambia endorsed EMTCT in 2012, the national antiretroviral therapy program began to quantify resource needs and mobilize the resources required to implement Option B+ at scale. The IATT provided technical assistance to the Ministry of Health to develop a strategy based on the 2013 WHO *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection* and a costed national plan. A team from Zambia attended the IATT costing workshop in South Africa, which introduced the team to different methodologies and models for costing national plans. Zambia adopted 2 of the costing models, which produced similar results.

Drawing on the outputs, the Ministry developed a short-term operational plan for 2012 to expedite provision of Option B+ while evaluating the national antiretroviral therapy program's capacity to test and treat all pregnant and breastfeeding women living with HIV. The medium-term 2-year implementation plan (2013–2015), which was developed at the same time, helped decision-makers assess the readiness of Zambia's health system to accommodate Option B+. The costing exercise was one of the first and defining steps in effectively planning for Option B+; as a result, lifelong antiretroviral therapy was provided at national scale by the end of 2015, with 87% of women receiving antiretroviral therapy.[53]

Scale-up of Option B+ and Integration

The IATT supported the adoption and rollout of the 2012 WHO programmatic update and the 2013 WHO *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection*, which called for lifelong antiretroviral therapy for all pregnant and breastfeeding women living with HIV (Option B+).[18,19]

The IATT Option B+ toolkit, launched at the 2013 IATT Annual Meeting, was inspired by the trailblazing experience in Malawi and other countries that had spurred widespread implementation of Option B+. The toolkit offered key considerations to support governments in planning for various aspects of this transition, including readiness at the national and facility levels, community engagement, human resources, and supply chain management. Modules on pediatric HIV and early infant diagnosis, quality assurance for HIV testing, and TB/HIV integration were added the following year. All IATT working groups and several partners, especially the CDC, Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), UNICEF, and WHO contributed to developing the content. It provided timely operational guidance and key considerations to inform national dialog and planning to keep pace with rapidly changing guidelines. Several countries—including Cameroon, Ethiopia, Zambia, and Zimbabwe—used the Option B+ toolkit as an important reference.[20–22] Boxes 2 and 3 detail the experiences in Cameroon and Zimbabwe.

BOX 2. Operational Tools Support Option B+ Scale-up in Cameroon

In August 2012, the Government of Cameroon adopted Option B+ in the context of an already strained health system. Under the leadership of the National AIDS Control Committee (NACC) and the Ministry of Health, all stakeholders—including the PEPFAR team, UN agencies, and implementing partners—were consulted to develop an implementation plan using the IATT's Option B+ toolkit as a guide. The National Readiness Checklist in the toolkit outlines 65 recommended activities to be undertaken before and during implementation. Of these, since early 2016, 44 (68%) have been completed, while 19 are in process and 2 activities are currently in the planning phase. Implementation began in 2013, starting with 22 pilot sites in 2 districts, expanding next to high-volume health facilities with colocated PMTCT and antiretroviral therapy services, and lastly to all health facilities by November 2015.

Key achievements of the Ministry of Health include the following: (1) developing an integrated training curriculum and strategy for MNCH, antiretroviral therapy, and PMTCT that is now used nationwide; (2) training 7570 health care providers over 2 years; (3) strengthening the monitoring and evaluation system, including standardization of patient files, revision of registers for antiretroviral therapy and PMTCT, and establishment of the District Health Information System; and (4) establishing the PMTCT/Pediatric HIV Technical Working Group in 2012 and national supervision system to improve the quality of PMTCT services. The technical support provided by the IATT globally and in-country has contributed to strengthening the health system and spurred improvements in the PMTCT program. The most notable sign of this is the increase in antiretroviral therapy coverage for pregnant and lactating women (up from 21.8% in 2012 to 82% in 2016).[53]

BOX 3. Technical Assistance for National Planning and Implementation of Option B+ in Zimbabwe

In July 2013, an IATT team led by the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) along with staff from CDC traveled to support the Ministry of Health and Child Welfare to develop a transition plan for national implementation of Option B+. Using a consultative approach and relying on the IATT Option B+ toolkit as a framework, the 2-week visit culminated with the draft of the operational plan.[20] Key features of the plan were the decentralization of antiretroviral therapy to primary health care facilities and integration of HIV, SRH, and MNCH

services with a strong emphasis on community linkages, engagement, and awareness to reduce loss to follow-up. The sound technical foundation provided by the plan with measurable outputs and buy-in of all stakeholders were contributing factors to the increase in antiretroviral therapy coverage among pregnant and breastfeeding women, which rose from 32% in 2012 to 84% by 2015.[53]

Effective implementation of Option B+ was contingent on the integration of HIV and services for sexual and reproductive health (SRH) and MNCH. The Maternal Health/Family Planning/Option B+ Working Group provided key leadership to a workshop held in October 2013, where 10 countries exchanged promising practices on integrated service delivery.[23,24] Key accomplishments included the following: (1) the development and publication of EMTCT job aid for health care workers that featured an algorithm/checklist to ensure that comprehensive health services are provided to women; and (2) technical input for community-based research on the impact of integration on quality of family planning services and health provider attitudes in Cameroon, Nigeria, and Zambia that had been conducted by the Global Network of People Living with HIV (GNP+) and the International Community of Women Living with HIV (ICW).[25]

Using Data for Planning and Program Improvements

To facilitate result-based planning, the IATT developed bottleneck analysis tools and guidance to define key systems barriers.[26,27] From September 2011 to January 2012, 11 Global Plan priority countries (Botswana, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Nigeria, the United Republic of Tanzania, and Zambia) received technical assistance from the IATT to conduct analyses using these tools and guidelines. This process catalyzed joint priorities and focused resources on critical barriers to achieving EMTCT goals.

Country teams of representatives of government, UN agencies, implementing partners, and civil society collected and analyzed quantitative and qualitative data to identify subnational pockets of unmet need for PMTCT, underlying determinants, and bottlenecks to the effective coverage of key interventions (antenatal care, antiretroviral medicines, skilled delivery, early infant diagnosis of HIV, postnatal care, and pediatric treatment). In South Africa, where this approach was applied across all districts and used regularly to track progress using dashboards, there has been notable improvement in PMTCT indicators.[28] Using this approach, several countries (including Cameroon, Ghana, and the Democratic Republic of the Congo) have integrated the approach into regular planning processes for other health programs.[29,30]

Strengthening Monitoring and Evaluation Systems

Achieving the Global Plan targets required robust monitoring and evaluation systems. This included adapting monitoring and evaluation systems to accommodate pregnant women living with HIV and mother–infant pair follow-up from birth through the end of breastfeeding. Patient registers required adaptation to monitor retention and the final rate of MTCT. In addition, monitoring and evaluation system changes had to be made while supporting quality clinical service delivery, balancing the need for data for program planning with minimizing the reporting burden on health care workers. The IATT M&E Working Group also contributed to key guidance on PMTCT evaluations and organized a regional meeting of 15 countries on operationalizing the *Monitoring & Evaluation Framework for Antiretroviral Treatment for Pregnant and Breastfeeding Women Living with HIV and Their Infants*.[31–33]

The IATT played an important role in providing the impetus to review and share registers and technical assistance to overcome specific monitoring and evaluation challenges, most notably in Mozambique and the United Republic of Tanzania. The IATT, though partners CDC and UNICEF, supported an assessment of the program in the United Republic of Tanzania soon after the introduction of Option B+. The assessment revealed a high dropout rate—30% by 3 months of antiretroviral therapy.[34] The assessment also facilitated improvements to the registers and cohort monitoring system and led to establishment of a task force to monitor stock-outs. The IATT also contributed to providing guidance on enhanced monitoring for Option B+ in Mozambique: Box 4 describes Mozambique's experience strengthening monitoring and evaluation systems.

BOX 4. Support for Longitudinal Monitoring for the National PMTCT Program in Mozambique

In Mozambique, early results from the pilot phase of Option B+ rollout indicated that, although the rate of antiretroviral therapy initiation was high, retention was a significant challenge. Compounding this issue, registers were not structured to follow up the mother–exposed infant pairs through the end of breastfeeding.[54,55] The adoption of Option B+ in 2013 provided an opportunity to revise the MNCH registers to allow longitudinal follow-up of mother–baby pairs through the end of breastfeeding and to improve data quality. The Mozambique Ministry of Health asked the IATT to do the following: (1) share tools, resources, and lessons learned from other countries that had undertaken a similar register revision process; and (2) provide technical guidance on international reporting requirements and standards. To provide this technical assistance, the Ministry of Health invited the IATT to share its technical expertise during 2 stakeholder meetings and register revision workshops in July and October 2013.

A postpilot evaluation from 9 districts in 3 provinces, conducted in collaboration with the IATT team, informed and fast-tracked additional register modifications, including deletion of nonessential or duplicative information; development of standard operating procedures on data collection, recording, and reporting; and revision of training materials. Regional and provincial training of health workers on the use of the registers was completed in 2014. Working through the monitoring and evaluation challenges in Mozambique and other countries led the

IATT to develop the *Monitoring & Evaluation Framework for Antiretroviral Treatment for Pregnant and Breastfeeding Women Living with HIV and Their Infants*, which was published in early 2015 to guide countries in determining their Option B+ monitoring and evaluation needs and to provide practical solutions to address common challenges. The Mozambique Ministry of Health introduced the revised tools and registers countrywide in early 2016.

Pediatrics and Child Survival

Although there were Global Plan goals for reducing AIDS-related infant mortality and universal access to treatment, the early focus on implementation of Option B+ overshadowed the achievement of targets related to pediatric HIV. Consequently, rates of pediatric antiretroviral therapy coverage remained low. In response, the IATT Child Survival Working Group published a 12-article series on pediatric HIV for an AIDS supplement in December 2013 to draw attention to this gap and propose strategies for addressing it. Member organizations of the group were instrumental in producing key guidance, namely the *Pediatric Advocacy Toolkit for Improved Pediatric HIV Diagnosis, Care and Treatment in High HIV Prevalence Countries and Regions*, the *Updated Paediatric ARV Formulary List*, and policy briefs on new pediatric formulations (among other guidance).[35–39]

Community Engagement

The IATT Community Engagement Working Group, led by GNP+ and ICW, helped to ensure that the perspectives, values, and preferences of women living with HIV were considered in the development of the 2013 and 2015 WHO *Consolidated Guidelines* on antiretroviral medicines through the use of community consultations conducted in Malawi and Uganda on Option B+ and early infant diagnosis.[40,41] The group also developed key guidance, such as the *Positive Health, Dignity and Prevention for Women and Their Babies: A Treatment Literacy Guide for Pregnant Women and Mothers Living with HIV* (UNICEF, ICW, GNP+) and *Community–Facility Linkages to Support the Scale-up of Lifelong Treatment for Pregnant and Breastfeeding Women Living with HIV* (UNICEF), which helped to elevate the importance of community engagement in addressing remaining gaps (such as in retention in care).[42,43]

Knowledge Sharing to Enhance Technical Support and Advocacy

Translating evidence into practice is a recognized form of technical assistance.[12] The IATT's work in knowledge generation, dissemination, and application has contributed to implementation, as evidenced by widespread adoption of new strategies to accelerate EMTCT. In December 2012, the IATT responded to requests from countries for updates on the latest scientific evidence on PMTCT and developed knowledge sharing platforms, which consisted of a community of practice (a virtual forum where people with shared interests exchange knowledge and experience); guidance and tool development (through the working groups of the IATT); virtual discussions, frequent educational webinars (listed in Box 5), and a resource library of the latest guidance, evidence, and tools.[44,45] Over the past 4 years, participation in these platforms has grown more than 7-fold, from 350 to 2600 members, with a website accessed by over unique 40,000 users from 100 countries.[46] Activity continues to grow, with a 29% increase in the number of community of practice members in 2015 and a 44% increase in website usage in the same year.[24] This broad virtual IATT community has grown to include program managers, policy-makers, and clinical researchers from beyond the IATT partner organizations. The success of knowledge sharing activities demonstrates the continued value that country implementers place on access to timely new evidence and best practices to inform and improve program planning and implementation. The use of key tools produced by the IATT, such as the Option B+ toolkit, confirms the perceived benefit of the IATT learning platforms.

BOX 5. Learning Webinars Organized by the IATT, 2012–2015

Webinar	IATT Partner/Presenter	Date	No. of Participants*
Option B/B+ and Efavirenz during Pregnancy	WHO	July 11, 2012	111
Costing of EMTCT Plans	Finance and Economics Working Group	September 25, 2012	49
Community Engagement and EMTCT	Community Engagement Working Group	November 9, 2012	44
POC Diagnostics, Mobile Technology and EMTCT: A Winning Combination?	UNICEF, CHAI	January 17, 2013	50
Human Rights in the Context of EMTCT	Community Engagement Working Group	February 7, 2013	56
HIV and Infant Feeding	Child Survival Working Group	March 7, 2013	22
Deciphering EMTCT Data	M&E Working Group	June 11, 2013	80
Launch of 2013 WHO Consolidated ARV Guidelines	WHO	September 3, 2013	120

(*Continued*)

Webinar	IATT Partner/Presenter	Date	No. of Participants*
Tracking PMTCT Progress in West and Central Africa (in French)	ESTHER	April 24, 2014	60
Operations Research Results on Integrating Sexual Reproductive Health and HIV service	Integration Working Group, Integra Initiative	May 15, 2014	30
Updated Paediatric ARV Formulary List	IATT Child Survival and Procurement and Supply Management Working Groups	June 12, 2014	70
PMTCT Cascade Analysis in Côte d'Ivoire	Population Council and University of Washington	July 9, 2014	70
Implementation of Option B+ in DRC (in French)	UNICEF, IATT Regional Team West and Central Africa	September 25, 2014	70
Closing the Paediatric Treatment Gap	WHO, UNICEF, CHAI	November 24, 2014	N/A
Communities Driving the EMTCT Response	UNICEF, IATT Community Engagement Working Group	December 10, 2014	50
Early Lessons Learned from Option B+ Implementation in Tanzania	United Republic of Tanzania Ministry of Health and Social Welfare	March 4, 2015	80
Update from CROI: PMTCT and Paediatric HIV	EGPAF, CHAI	April 2, 2015	35
"Why I take my Medicine": Supporting HIV Disclosure to Children	Namibia Ministry of Health and Social Services, I-TECH, University of Washington, Salamander Trust	April 29, 2015	40
Cuba Validation of EMTCT of HIV and Congenital Syphilis	WHO, PAHO, Cuba Ministry of Health	July 14, 2015	68
Launch of the IATT B+ M&E Framework	IATT M&E Working Group, Ministry of Health Kenya, Ministry of Health Uganda	July 29, 2015	80
WHO Guidelines Update	WHO, UNICEF, Makerere University–Johns Hopkins University Research Collaboration (Kampala, Uganda)	August 13, 2015	75
Multi-country PMTCT Cascade Analysis	Population Council, EGPAF	September 17, 2015	68
WHO Early Release Guidelines	WHO, Ministry of Health Uganda, University of California at San Francisco	October 13, 2015	72
Paediatric ARV Optimization	Office of the Global AIDS Coordinator (OGAC), International Center for AIDS Programs (ICAP), Drugs for Neglected Diseases initiatives (DNDi), Clinton Health Access Initiative (CHAI)	November 12, 2015	53

*Note that this number indicates only those who logged onto the real-time webinar session. The sessions are recorded, so the number of participants listed is far fewer than the total number who actually viewed the webinar.

In addition, qualitative feedback from surveys of community of practice members shows that most respondents applied what they learned and that they valued the timeliness and practical applications of the issues discussed. Likewise, Chad, Kenya, Malawi, Lesotho, and Uganda reported in 2015 that they had applied the knowledge gained via the IATT to training development, the establishment of longitudinal monitoring systems, and preparation for EMTCT validation. The domino effect seen with the adoption of Option B+ and interest in EMTCT validation are the most prominent examples of the contribution that knowledge sharing and tool development made toward catalyzing action across Global Plan countries.

In parallel, the IATT supported regional stock-taking meetings in 2013 and 2014: 2 in East and Southern Africa and 1 in West and Central Africa.[47,48] With IATT support, Kenya organized a similar meeting at the national level that reinforced political commitment to improving data quality.[49] By creating a forum for in-depth exchanges between countries on promising practices, these meetings facilitated peer-led technical support, contributed to the uptake of learning, and helped reinvigorate South–South learning.

LESSONS LEARNED AND CONCLUSIONS ON THE ROLE OF TECHNICAL ASSISTANCE GOING FORWARD

The added value of IATT technical assistance has rested on several factors: (1) providing resources in a timely manner; (2) leveraging diverse perspectives and experiences of various partners and contexts in support of country-specific planning and implementation; and (3) complementing and not duplicating ongoing technical assistance already provided by partners that addressed prevailing gaps in service delivery; and (4) conferring credibility and legitimacy by providing technical assistance through a consortium of internationally recognized partners and experts. IATT technical assistance also benefitted from dedicated staff in the IATT Secretariat, who were crucial to providing a central and focused source of accountability in an otherwise multipolar environment.

Efforts to coordinate and respond to technical assistance requests did encounter constraints. The demand for the IATT's country support sometimes outstripped available funding and resources, although funding was cost shared among the partners and centrally requested technical assistance was primarily provided by regional IATT staff to minimize costs. Because of the number of IATT partners with multiple accountabilities (namely to their donors), capturing the breadth and depth of ongoing technical assistance provided by IATT members working across 22 countries over 3 years was challenging. Rotation of government staff and IATT working group members disrupted the continuity required to follow up on technical assistance recommendations. Another limitation is the selection bias in the results presented in this article as not all countries, including the poor performing countries, requested technical assistance.

Sustaining the EMTCT gains post-2015 will require continued technical assistance coordination in support of national priorities. This is particularly true to achieve the Fast-Track targets for HIV and in light of Sustainable Development Goals (SDGs) that emphasize more integrated approaches across populations and services. The IATT structure remains relevant both as a think tank of experts in the areas of pediatric HIV and PMTCT, and as a flexible organization able to pool resources from donors and implementing partners alike to provide practical support to countries. The IATT's unique inter-organizational set-up and the diversity of its partners enables it not only to influence strategic thinking concerning EMTCT but also to address HIV care, prevention, and treatment for young women, adolescents, and children in a lifecycle approach.

TRENDS AND RECOMMENDATIONS

Post-Global Plan, the IATT's renewed focus will be to respond to epidemiological shifts and prevailing gaps and inequities in the coverage of HIV interventions. As outlined in Figure 3, although fewer children will be born with HIV because of the success of the Global Plan, rates of infant HIV diagnosis and pediatric antiretroviral therapy coverage are low, and an increasing number of HIV-positive children are surviving into adolescence and young adulthood. In addition, the number of HIV-infected pregnancies each year continues to be high, and the high incidence of HIV infections among adolescent girls and young women is an important driver of the epidemic. Embedding PMTCT and pediatric care within a continuum that links HIV prevention, care, and treatment services will expand the scope of technical assistance to address the needs of these populations in a holistic way that underscores the interrelatedness of program elements.

The IATT partnership will be reconfigured to align with global initiatives such as UNAIDS Fast-Track, SDGs, and the *Global Strategy for Women's, Children's and Adolescents' Health*.[50–52] Supporting countries to plan and meet the criteria for elimination of MTCT of HIV (once benchmarks have been developed) also will be prioritized. Achieving the validation criteria, which includes benchmarks for prevalence and incidence, inherently requires countries to address primary prevention and reduce the unmet need for family planning. Along these lines, effective integration of HIV and services for SRH and MNCH—including health management and information systems and human and financial resources, combined with ensuring biomedical interventions are increasingly rooted in sociocultural contexts—is critical to improving maternal and child health and HIV-related outcomes. Simultaneously, technical assistance will focus on defining subnational inequities to identify those who are most marginalized.

Delivery of technical assistance also will further strengthen peer-to-peer and South–South technical assistance and enhanced monitoring for EMTCT to address subnational disparities and to reduce costs. With the growth in access to technology and demand for real-time data and

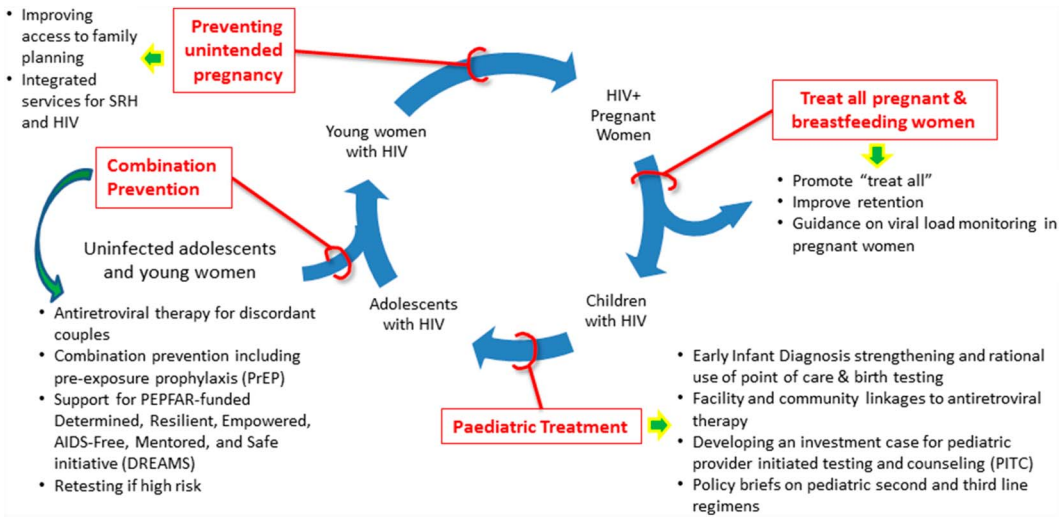

FIGURE 3. PMTCT is from birth to adolescence and reproductive age: a lifecycle approach. Source: IATT update to the global steering group, January 2016.

information, virtual platforms are expected to gain importance as a vehicle for learning and technical support. This could take the form of more frequent virtual technical consultations between experts at the global, regional, and country levels. In recognition of this, IATT knowledge sharing platforms will be redesigned and upgraded to be more collaborative and participatory.

Going forward, the sustained engagement of Ministry of Health participants, local researchers, and program implementers will be a priority to facilitate and decentralize technical assistance within countries. Africa-based organizations and professional associations—such as Pediatric AIDS Treatment for Africa (PATA) and the African Network of Care for Children Affected by HIV/AIDS (ANECCA)—have a substantial representation of frontline workers, making them well-positioned to assume a larger role in developing user-friendly tools and providing technical assistance at the facility and subnational levels. Similarly, the elevated engagement of civil society organizations—namely GNP+, ICW, and their local chapters, as well as other national and faith-based organizations—will be crucial to creating more dynamic and resilient community and health care systems. Their input and leadership will be critical to shaping the direction of the IATT so that it is grounded and driven by the learning and technical assistance needs of governments, health professionals, and civil society alike.

By remaining responsive to the evolving scientific and programmatic needs of countries, the IATT has provided technical assistance that has moved countries closer to the goal of eliminating MTCT. As countries make the transition to monitoring 90–90–90 targets and the SDGs, the IATT's nimble and inclusive structure continues to be a valuable coordination mechanism and learning ground to catalyze in-country action to Fast-Track the response to end AIDS in children and adolescents.

The IATT community of practice can be found at https://knowledge-gateway.org/emtct. For more information on the IATT, please contact Sostena Romano at sromano@unicef.org.

REFERENCES

1. Interagency Task Team on Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Global Guidance on Global Scale-up of Prevention of Mother-to-Child Transmission of HIV. Towards Universal Access for Women, Mothers and Young Children and Eliminating HIV and AIDS Among Children*. Geneva, Switzerland: World Health Organization, United Nations Children's Fund; 2007.
2. Connor EM, Sperling RS, Gelber R, et al. Reduction of maternal–infant transmission of human immunodeficiency virus type 1 with zidovudine treatment. *N Engl J Med.* 1994;331:1173–1180.
3. Shaffer N, Chuachoowong R, Mock PA, et al; Bangkok Collaborative Perinatal HIV Transmission Study Group. Short-course zidovudine for perinatal HIV-1 transmission in Bangkok, Thailand: a randomised controlled trial. *Lancet*. 1999;353:773–780.
4. Dabis F, Msellati P, Meda N, et al; DITRAME Study Group. Diminution de la Transmission Mère–Enfant. Six-month efficacy, tolerance, and acceptability of a short regimen of oral zidovudine to reduce vertical transmission of HIV in breastfed children in Côte d'Ivoire and Burkina Faso: a double-blind placebo-controlled multicentre trial. *Lancet*. 1999; 353:786–792.
5. Wiktor SZ, Ekpini E, Karon JM, et al. Short-course oral zidovudine for prevention of mother-to-child transmission of HIV-1 in Abidjan, Côte d'Ivoire: a randomised trial. *Lancet*. 1999;353:781–785.
6. United Nations Children's Fund. *Evaluation of United Nations-Supported Pilot Projects for the Prevention of Mother-to-Child Transmission of HIV: Overview of Findings*. Geneva, Switzerland: United Nations Children's Fund; 2003.
7. Baek C, Rutenberg N. Implementing programs for the prevention of mother-to-child HIV transmission in resource-constrained settings: horizons studies, 1999–2007. *Public Health Rep.* 2010;125:293–304.
8. UNAIDS. *Intensifying Our Efforts to Eliminate HIV/AIDS*. Geneva, Switzerland: UNAIDS; 2011.
9. Jashi M, Viswanathan R, Ekpini R, et al. Informing policy and program decisions for scaling up the PMTCT and paediatric HIV response through joint technical missions. *Health Policy Plan*. 2012;28:367–374.
10. Prevention of Mother to Child Transmission (PMTCT) High Level Global Partners Forum. *Call to action: towards an HIV-free and AIDS-free generation*. Abuja, Nigeria, 2005. Available at: http://www.who.int/hiv/mtct/pmtct_calltoaction.pdf. Accessed June 22, 2016.
11. World Health Organization, United Nations Children's Fund. *Guidance on Global Scale-Up of the Prevention of Mother-to-Child Transmission of HIV. Towards Universal Access for Women, Infants and Young Children and Eliminating HIV and AIDS Among Children*. Geneva, Switzerland: World Health Organization, United Nations Children's Fund; 2007. Available at: http://www.unicef.org/aids/files/PMTCT_enWEBNov26.pdf. Accessed June 22, 2016.
12. West GR, Clapp SP, Averill EMD, et al. Defining and assessing evidence for the effectiveness of technical assistance in furthering global health. *Glob Public Health*. 2012;7:915–930.
13. Technical assistance tracking page. Interagency task team on prevention and treatment of HIV infection in pregnant women, mothers and children web site. 2015. Available at: www.emtct-iatt.org/technicalassistance. Accessed June 22, 2016.
14. Zambia Ministry of Health and Social Welfare. *Business Case for an Improved EMTCT Protocol in Zambia*. Lusaka, Zambia: Zambia Ministry of Health and Social Welfare; 2012.
15. Adesina A, Alkenbrack S. *The Costs and Impacts of Scaling Up PMTCT in Nigeria*. Washington, DC: Futures Group, Health Policy Project; 2014.
16. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Pediatric and Adolescent Antiretroviral Treatment in Zambia: Estimating the Cost of Universal Access 2014–2018*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2014.
17. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Regional Workshops on Costing of National Plans to Eliminate Mother-to-Child Transmission of HIV (EMTCT). Technical Report and Recommendations*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2012.
18. World Health Organization. *Use of Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants: Programmatic Update*. Geneva, Switzerland: World Health Organization; 2012.
19. World Health Organization. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach*. Geneva, Switzerland: World Health Organization; 2013.
20. Zimbabwe Ministry of Health and Child Welfare. *An Operational Plan for the Nationwide Transition to Option B+ in Zimbabwe September 2013–November 2014*. Harare, Zimbabwe: Zimbabwe Ministry of Health and Child Welfare; 2013.
21. Ethiopia launches Option B+. Interagency task team on the prevention and treatment of HIV infection in pregnant women, mothers and children web site. 2013. Available at: http://emtct-iatt.org/2013/03/ethiopia-launches-option-b/. Accessed July 29, 2016.
22. Zambia adopts Option B+. Interagency task team on the prevention and treatment of HIV infection in pregnant women, mothers and children web site. 2013. Available at: http://emtct-iatt.org/2013/02/zambia-adopts-option-b/. Accessed July 29, 2016.
23. Interagency Task Team on the Prevention and Treatment of HIVInfection in Pregnant Women, Mothers and children. Brief meeting report. Paper presented at: IATT Integrated Service Delivery Models Workshop; October 28–31, 2013; Dar es Salaam, United Republic of Tanzania.
24. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Compendium of*

Case Studies. HIV and Sexual and Reproductive Health Programming: Innovative Approaches to Integrated Service Delivery. New York,NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2014.
25. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Eliminating Mother-to-Child Transmission of HIV and Keeping Their Mothers Alive. Job Aid for Healthcare Workers*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2014.
26. United Nations Children's Fund. *Reaching Universal Health Coverage Through District Health System Strengthening: Using a Modified Tanahashi Model Sub-nationally to Attain Equitable and Effective Coverage*. New York, NY: United Nations Children's Fund; 2013.
27. Tanahashi T. Health service coverage and its evaluation. *Bull World Health Organ.* 1978;56:295–303.
28. Bhardwaj S, Barron P, Pillay Y, et al. Elimination of mother-to-child transmission of HIV in South Africa: rapid scale-up using quality improvement. *South Africa Med J.* 2014;104:239–243.
29. Agongo E. Using BNA tool for EMTCT as an entry point for health systems strengthening for maternal newborn child health and survival in Ghana. Paper presented at: International Conference on AIDS and STIs in Africa; December 7–11, 2013; Capetown, South Africa.
30. South Africa Medical Research Council. *Report on the External Mid-term, Formative Evaluation of the Optimizing HIV Treatment Access (OHTA) for Pregnant and Breastfeeding Women Initiative in Uganda, Malawi, Ivory Coast and the Democratic Republic of Congo. Cape Town, South Africa*: South Africa Medical Research Council; 2015.
31. World Health Organization. *A Short Guide on Methods. Measuring the Impact of National PMTCT Programmes Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive*. Geneva, Switzerland: World Health Organization; 2012.
32. Interagency Task Team on the Prevention and Treatment of HIVInfection in Pregnant Women, Mothers and Children. *B+ Monitoring & Evaluation Framework Dissemination and Country Consultation. Adapting Monitoring & Evaluation Systems for Cohort and Enhanced Monitoring as Well as Outcome and Impact Evaluations/Assessments*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2016.
33. Inter-agency Task Team on the Prevention and Treatment of HIVInfection in Pregnant Women, Mothers and Children. *Monitoring & Evaluation Framework for Antiretroviral Treatment for Pregnant and Breastfeeding Women Living with HIV and Their Infants. (IATT M&E Option B+ Framework)*. New York, NY: CDC, WHO and UNICEF. 2015.
34. Tanzanian Ministry of Health and Social Welfare. *Early Assessment of Lifelong Antiretroviral Therapy for Pregnant and Lactating Women with HIV/AIDS (LLAPLA). Final Report*. Dar es Salaam, United Republic of Tanzania: Tanzanian Ministry of Health and Social Welfare; 2014.
35. World Health Organization, United Nations Children's Fund. *Pediatric Advocacy Toolkit for Improved Pediatric HIV Diagnosis, Care and Treatment in High HIV Prevalence Countries and Regions*. Geneva, Switzerland: World Health Organization; 2011.
36. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *2015 Updated Pediatric ARV Formulary List*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2015.
37. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *2013 Updated Paediatric ARV Formulary List*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2013.
38. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Factsheet on Lopinavir and Ritonavir (LPV/R) Oral Pellets*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2015.
39. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Policy Brief on Supply Planning for New Dosage Form of Lopinavir and Ritonavir (LPV/R) Oral Pellets*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2015.
40. Global Network of People Living with HIV. *Option B+: Understanding Perspectives/Experiences of Women Living With HIV in Uganda and Malawi*. Amsterdam, The Netherlands: Global Network of People Living with HIV; 2013.
41. International Community of Women Living with HIV, Global Network of People Living with HIV. *Early Infant Diagnosis: Understanding the Perceptions, Values and Preferences of Women Living with HIV in Kenya, Namibia and Nigeria*. Nairobi, Kenya and Amsterdam, The Netherlands: International Community of Women Living with HIV, Global Network of People Living with HIV; 2015.
42. Community Engagement Working Group of the Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Positive Health, Dignity and Prevention for Women and Their Babies: A Treatment Literacy Guide for Pregnant Women and Mothers Living with HIV*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2016.
43. United Nations Children's Fund. *Community–Facility Linkages to Support the Scale-up of Lifelong Treatment for Pregnant and Breastfeeding Women Living with HIV. A Conceptual Framework, Compendium of Promising Practices and Key Operational Considerations*. New York, NY: United Nations Children's Fund; 2015.
44. Lave J. Situating learning in communities of practice. In: Resnick LB, Levine JM, Teasley SD, eds. *Perspectives on Socially Shared Cognition*. Arlington, VA: American Psychological Association; 1991:63–82.
45. Wenger E. *Communities of Practice: Learning, Meaning, and Identity*. New York, NY: Cambridge UP; 1998.
46. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Knowledge Management Annual Report to the Department of Foreign Affairs, Trade and Development, Canada (DFATD)*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2016.
47. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *Final Report: Second Stocktaking Meeting of East and Southern Africa Priority Countries on the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2014.
48. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *West and Central Africa Regional Stocktaking Meeting on the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive. The Last 600 Days: Challenges, Opportunities and the Way Forward*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2014.
49. Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. *2014 IATT Annual Report*. New York, NY: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2015.
50. UNAIDS. *Fast-Track: Ending the AIDS Epidemic by 2030*. Geneva, Switzerland: UNAIDS; 2014.
51. United Nations. *Sustainable Development Goals*. New York, NY: United Nations; 2014.
52. United Nations. *Global Strategy for Women's, Children's and Adolescents' Health (2016–2030)*. New York, NY: United Nations; 2016.
53. UNAIDS. *On The Fast-Track to an AIDS-free Generation*. Geneva, Switzerland: UNAIDS; 2016.
54. Kieffer MP, Mattingly M, Giphart A, et al. Lessons learned from early implementation of option B+: the Elizabeth glaser pediatric AIDS foundation experience in 11 African countries. *J Acquir Immune Defic Syndr.* 2014;67:S188–S194.
55. Llenas-García J, Wikman-Jorgensen P, Hobbins M, et al. Retention in care of HIV-infected pregnant and lactating women starting antiretroviral therapy under Option B+ in rural Mozambique. *Trop Med Int Health.* 2016;21:1003–1012.