A Practical Way to Prevent Mother-to-Child Transmission of HIV:

Learning from the Partnership for HIV-Free Survival

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A Practical Way to Prevent Mother-to-Child Transmission of HIV: Learning from the Partnership for HIV-Free Survival

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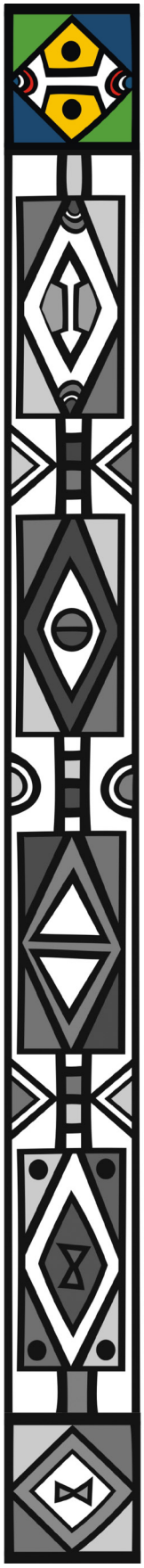

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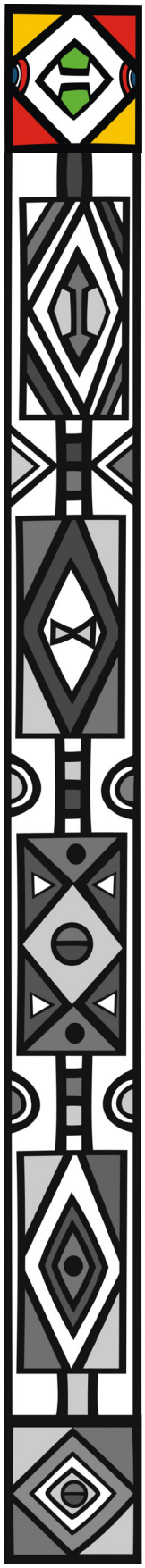


ABBREVIATIONS

ANC	antenatal care
ART	antiretroviral therapy
ARV	antiretroviral
IYCF	infant and young child feeding
MCH	maternal and child health
PCR	polymerase chain reaction
PDSA	Plan-Do-Study-Act
PEPFAR	United States President's Emergency Plan for AIDS Relief
PHFS	Partnership for HIV-Free Survival
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child transmission
QI	quality improvement
USAID	United States Agency for International Development
WHO	World Health Organization

Why was this guide developed?

The Partnership for HIV-Free Survival (PHFS) was an innovative project designed to prevent mother-to-child transmission of HIV. PHFS brought together proven practices from prevention of mother-to-child transmission (PMTCT), quality improvement (QI), nutrition, and community outreach initiatives to improve the health outcomes for mothers living with HIV and their HIV-exposed infants. Supported by the United States Agency for International Development (USAID) and the United States President's Emergency Plan for AIDS Relief (PEPFAR), PHFS was active from 2012 to 2016 in six sub-Saharan African countries: Kenya, Lesotho, Mozambique, South Africa, Tanzania, and Uganda.

A team from the USAID- and PEPFAR-funded MEASURE Evaluation project conducted a legacy evaluation of the PHFS in 2018. We identified several compelling lessons for successful PMTCT programs from the ways the project was implemented in the participating countries. These lessons are broadly applicable to countries and facilities that are working to reduce mother-to-child transmission of HIV, increase retention in antiretroviral therapy (ART), support better nutrition practices, and improve clients' health-seeking behaviors.

Although many of the lessons are cited in the PHFS legacy evaluation report (Hales, Davis, Munson, & Bobrow, 2019; https://www.measureevaluation.org/resources/publications/tr-18-314), this document was prepared to provide practical guidance for identifying and implementing appropriate activities in the local context. It includes descriptions of the key lessons, tips, and an extensive checklist to help decision makers and implementers understand how and why to launch, implement, and sustain the critical activities in the PHFS approach.

Who should use this guide?

This guide was designed for use by a wide range of people and organizations involved in the HIV response, including partners in government and civil society. It was designed primarily for people who are keenly interested in improving the performance of PMTCT programs and related activities (e.g., retention in antiretroviral therapy [ART] and nutrition assessment, counseling, and support [NACS]). Users may include health ministry directors or department heads; implementing partner technical leads; regional and district health officers; program planners in community-based organizations; and frontline health workers, to name a few. Because the guide includes both strategic and implementation perspectives, it can be used by people with different expertise, including advocacy, policy, planning, oversight, and implementation.

How to use this guide

This document has two sections: (1) An overview of the key lessons learned from the implementation of the PHFS approach to PMTCT; and (2) checklists that guide users through the approach's implementation steps. Used together, the two components help users think through the issues and how the PHFS approach's activities can be implemented and/or adapted for use in different contexts.

This is not a rigid or strict guide. Although it can be used in a step-by-step manner, users should understand that no guide of this type could cover all contingencies affecting the implementation and sustainability of the approach. It is the responsibility of users to consider the local context when reviewing the lessons and the checklists and to consider the lessons in the local context, adapting the checklists appropriately without undermining the value and intent of either section.

It is recommended that users review other relevant materials about the PHFS when using this guide, especially the legacy evaluation report mentioned on page 8, and the individual assessments prepared for each PHFS country listed below. Users should also review the papers on PHFS prepared by members of the original implementing team, which were published in the Journal of the International Association of Providers of AIDS Care: https://journals.sagepub.com/topic/collections-jia/jia-1-the_partnership_for_hivfree_survival/jia?pbEditor=true. Here are links to each of these resources:

Six-Country Legacy Evaluation:

- Kenya: https://www.measureevaluation.org/resources/publications/fs-18-251
- Lesotho: https://www.measureevaluation.org/resources/publications/fs-18-250
- Mozambique: https://www.measureevaluation.org/resources/publications/fs-18-293
- South Africa: https://www.measureevaluation.org/resources/publications/fs-18-266
- Tanzania: https://www.measureevaluation.org/resources/publications/fs-18-249
- Uganda: https://www.measureevaluation.org/resources/publications/fs-18-255

What were the key lessons from the Partnership for HIV-Free Survival?

The PHFS legacy evaluation identified a core set of strategic approaches and implementation activities, which together created an effective platform to dramatically reduce vertical transmission of HIV. The approaches and activities were:

- Mother-baby pairs. HIV-positive mothers and HIV-exposed infants are seen together during the same appointment.
- Mother-baby clinics. Mother-baby pairs are seen at designated mother-baby clinics.
- Integrated services. All relevant and/or required services are available to mother-baby pairs during each visit to the mother-baby clinic.
- Nutrition. Nutrition assessment, counseling, and support activities, including recommendations on breastfeeding practices, are available to mother-baby pairs as a component of integrated services.
- Quality improvement tools and techniques. Basic, facility-led QI practices are used to identify and implement practical ways to improve facility performance and client outcomes.
- Coaching and mentoring. Coaches and mentors provide regular support to frontline staff to implement the overall PHFS approach, including the QI activities.
- Knowledge exchange. Frontline staff share knowledge and experience with colleagues at other facilities to learn from each other and continue to improve their PMTCT programs. In many contexts, frontline staff also share with regional and national health system administrators.
- Community workers. Community workers, including peer mothers, conduct outreach work to support retention in HIV care and treatment for mother-baby pairs.
- Metrics and data sets. Carefully-selected metrics and data sets are used to track and improve the performance and outcomes of PMTCT programs.

These and other recommendations based on the PHFS approaches and activities follow.

TIP As the baby gets older, a mother generally needs less frequent visits; however, continuing the joint appointments gives health workers the opportunity to maintain their dialogue with the mother on key issues, including her ART retention, breastfeeding, infant feeding, and developmental milestones in her child's development. The ongoing engagement with mothers gives health workers—both facility- and community-based— a better understanding of the mother's situation and what support she needs to look after her own and her baby's health.

TIP Adjustments may need to be made in how appointments are scheduled and recorded. In some settings, appointment books and systems are not designed for joint appointments. Rather than develop an entirely new system for scheduling joint appointments, facilities should identify simple workarounds that make the most of existing books/systems. One example of a workaround is writing the names of both the mother and the child in the space for the client's name.

Mother-baby pairs

HIV-positive mothers and their HIV-exposed babies should be seen together at all appointments, ideally until the baby is 24 months old.

Beginning with the first postpartum visit and continuing through the baby's second birthday (24 months), HIV-positive mothers and their HIV-exposed babies should be seen together during a single appointment. Even in situations where there is a specific need to see the mother, the facility should also see the baby and vice versa.

For each appointment, health workers should be prepared to provide the full range of appropriate and applicable services (i.e., integrated services) both to the mother and the baby. See page 16 for information on integrated services for mother-baby pairs. The shift to seeing mother-baby pairs should be accompanied by a shift to keeping their health records together. The exact steps or process for keeping the client information together can vary, but the purpose remains the same: combined record keeping makes it much easier for facility staff to monitor and address the health both of mother and baby. See page 34 for information on data collection and data use.

Keep in mind: Not all mothers have the opportunity or the ability to continue with mother-baby appointments through their baby's first 24 months. Challenges faced by mothers can range from the distance to the health facility to migratory work that takes them away from their families for extended periods. In these cases, health workers should encourage mothers to continue the joint visits for as long as possible and, beyond that point, to make joint visits a priority when they can.

Keep in mind: The schedule of follow-up appointments should be aligned with accepted protocols in the country. The follow-up schedule may be different for mothers and babies. The challenge is to find practical ways to reconcile the differences as much as possible without undermining the quality of service provided both to mother and baby. Aligning the visits as a way of reducing the burden on the mother is likely to be more challenging in the early months postpartum but should get easier as the baby gets older.

TIP When planning and implementing the shift to seeing mother-baby pairs, it is important to include the frontline staff who will be doing the actual work of scheduling appointments, seeing clients, and maintaining their records. Their knowledge and understanding of the practical issues will be invaluable in making mother-baby pairs an efficient and effective way to see clients.

TIP Facilities should consider seeing all mothers and babies as pairs, regardless of their HIV status. The benefits of joint appointments are universal, as shown by the decision of the Department of Health in KwaZulu-Natal province in South Africa to see all mothers and babies as pairs. It is also possible to continue to see pairs beyond a baby's second birthday.

Why mother-baby pairs?

Health workers, program managers, and mothers understand that seeing mother-baby pairs during a single appointment is an efficient and effective way to assess and track the health of both the mother and her baby. Mothers appreciate the joint appointment because it reduces the number of visits to a facility, saving time and money. For example, instead of a mother coming for a postpartum visit on one day and time, and the baby coming for a checkup on another day and time, they come for a single appointment.

Health workers and program managers recognize the value of joint appointments for identifying and addressing any issues that affect both mother and baby (e.g., ART retention; other communicable diseases; insufficient food; unhealthy environmental factors; familial support). Moreover, having the baby present during the mother's appointments communicates a powerful and persuasive message to the mother about the vital connections between her health—including her health-related decisions and behaviors—and the health of her baby.

Joint appointments also build stronger bonds among the mother, her baby, and the health workers by investing them in the overall health of the mother-baby pair. When services are provided at a mother-baby clinic (discussed in the next section), there are more and better opportunities for mothers to share their experiences and to learn from one another in an informative, supportive, and nonstigmatizing setting.

TIP Holding mother-baby clinics on consistent days and at consistent times sends a reassuring message to participating mothers, which helps retain them in care. However, it is also important for facilities to monitor the client load to ensure that the right amount of time is set aside for these clinics. One effective approach is to retain the same days but adjust the time slot as the number of HIV-positive mothers increases or declines.

Mother-baby clinics

Mother-baby pairs should be seen at designated mother-baby clinics.

The benefits of seeing an HIV-positive mother and her HIV-exposed infant as a pair are further enhanced if they are seen on clinic days and/or at times that are reserved for them. Designated PMTCT clinics help create a strong partnership—among the healthcare workers, outreach/community teams, and mothers—that improves the health outcomes for mothers and babies. These clinic days and/or times are an effective way to provide integrated care to the pairs participating in a PMTCT program. More information about integrated care is provided on page 16.

At most health facilities, a mother-baby clinic for PMTCT clients is designated by the day and time when it is held (e.g., every Wednesday and Friday from 8 a.m. to 11 a.m.). During that time, the facility sees only pairs of HIV-positive mothers and their HIV-exposed infants. However, for facilities at which separate space is available, it is possible to designate a physical clinic or mother-baby care point that provides services to only these mother-baby pairs. Facilities with this type of physical clinic find that they create a "safe space" for mothers and babies.

Keep in mind: HIV-positive pregnant woman should be encouraged and supported to visit a mother-baby clinic regularly before giving birth. Designated PMTCT clinics can help these women overcome their reluctance to engage in essential antenatal care (ANC). Clinics with a robust community outreach program (page 50) have improved early enrollment in ANC, which has a clear effect on HIV-positive women's continuing engagement with the PMTCT services available at the mother-baby clinic.

TIP The multiple benefits to mothers and babies of having designated clinic days and/or times and/or spaces are an incentive for mothers to remain in care with their babies, which is key to the prevention of mother-to-child transmission and to epidemic control.

TIP In Kenya's Kwale County, the health facilities used simple approaches to enhance the appeal of the PMTCT mother-baby clinics. For example, they named the clinic days as HEI Days (for HIV-exposed infants) and the staff worked very hard to ensure that every mother and child understood that these days were for them. They also held "graduations" for children who were HIV-free at the 24-month mark.

Why mother-baby clinics?

Mother-baby clinics benefit the pairs in multiple ways:

- Mothers spend less time traveling to and waiting at the clinic (i.e., one visit for the pair as opposed to separate visits for the mother and the baby).
- Mothers and babies face significantly less stigma during their clinic visits; mothers come together in formal and informal support groups.
- Mothers develop relationships with peers during their regular visits, which helps reinforce critical behaviors, such as ART retention, breastfeeding, and nutrition.
- Mothers use the appointments to increase partner involvement in care, including partner testing and disclosure of HIV status.

Health facilities also benefit from the approach, including the ability to provide integrated and differentiated care; make improvements in the quality of care and support; manage the need for fewer appointments; and track clients more efficiently.

TIP When planning how to deliver integrated services, facilities should map the services available to each client population (e.g., pregnant women, postpartum mothers, and babies) and the basic intervals at which they are provided through the baby's second birthday. This mapping helps facilities understand what adjustments should be made to provide integrated services to all their clients.

Integrated services

Mother-baby pairs should receive all relevant and/or required services during each visit to the mother-baby clinic.

The efficiency and effectiveness of a mother-baby PMTCT clinic depend on the clinic's ability to provide all services relevant to and/or required both by mothers and babies during each visit. The range of services includes ANC, postnatal care, ART services, drug dispensing, HIV testing, checking nutrition status (e.g., body mass index), infant growth monitoring, maternal and child health (MCH) services, and nutrition counseling and support.

The services required by clients vary depending on their specific situations and conditions. For example, an HIV-positive pregnant woman needs a different set of services from an HIV-positive mother with a one-month-old baby. The challenge for health facilities is to integrate their services in ways that make them efficient and effective to deliver on a routine basis.

The provision of integrated services is generally a straightforward proposition. However, it does require that health facility staff understand how services are currently delivered and what changes need to be made for services to be fully integrated. For example, the ability of HIV-positive pregnant women and mothers to pick up their antiretroviral (ARV) prescriptions at the mother-baby clinic is an important benefit, one that helps keep them retained in care. Ensuring that a health facility can provide medications at the mother-baby clinic is an essential activity that should be addressed.

TIP The ability to provide integrated services depends on the quality and capacity of frontline staff at a health facility. They need the required knowledge and skills and the ability to collaborate with other key players at the facility and in the community.

Why integrated services?

By providing integrated services during each visit, the mother-baby clinic is essentially a "one-stop shop" that meets the varying needs of HIV-positive pregnant women and mother-baby pairs during each visit. Mothers and babies make fewer trips to the clinic, saving the mothers time and money. Visits are more efficient and more effective both for clients and providers, improving the quality of care while also saving time and money for all parties. Moreover, the combination of mother-baby pairs, mother-baby clinics, and integrated services makes for a more engaging and rewarding experience for mothers, which contributes to better retention in care.

TIP Ensure that frontline staff at the mother-baby clinic have a complete understanding of the best practices and benefits of breastfeeding both for the infant and the mother. It is likewise important that staff understand the value of providing accurate information about these practices and their benefits to mothers and other influential family members (e.g., grandmothers).

Nutrition: Breastfeeding

Nutrition assessment, counseling, and support activities, including recommendations on breastfeeding practices, should be available to mother-baby pairs as a component of integrated services.

Changing longstanding breastfeeding beliefs and practices can be difficult, but improvements can have significant positive effects on the health and well-being of mothers and babies. According to the World Health Organization (WHO): "Breastmilk promotes sensory and cognitive development, and protects the infant against infectious and chronic diseases. Exclusive breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia and helps for a quicker recovery during illness" (WHO, n.d.). Moreover, "breastfeeding contributes to the health and well-being of mothers, it helps to space children, reduces the risk of ovarian cancer and breast cancer, increases family and national resources, is a secure way of feeding and is safe for the environment" (WHO, n.d.).

The core recommendation for breastfeeding is straightforward: A mother—including an HIV-positive mother—should exclusively breastfeed for the first six months of her infant's life, and then continue breastfeeding with complementary foods for at least two years (WHO, n.d.).

Unfortunately, the slow uptake of internationally recommended breastfeeding practices by mothers reflects the broader challenges that MCH programs have faced for decades: entrenched cultural beliefs about breastfeeding, longstanding breastfeeding practices, work demands on lactating mothers, and difficulties with data collection. For HIV-positive mothers and the health professionals who provide services to them, there has been the added complication of evolving breastfeeding recommendations and policies that contribute to inconsistent guidance from frontline staff.

Why change breastfeeding practices among HIV-positive mothers?

When an HIV-positive mother is on ART, the evidence shows that the risk of transmitting HIV through breastmilk is extremely low and the benefits of breastfeeding for the baby—and for the mother—are high. It is now recommended that HIV-positive mothers who are on ART follow the same breastfeeding practices as HIV-negative mothers. They should exclusively breastfeed for the first six months of an infant's life and then continue breastfeeding with complementary foods for at least two years. Qualitative research from the PHFS evaluation indicates that many mothers are receiving conflicting advice, and that breastfeeding may not be promoted consistent with current WHO recommendations (Hales, Davis, Munson, & Bobrow, 2019). Clearly, there is room for improvement in promoting breastfeeding practices in PMTCT settings.

Keep in mind: Although the evidence supporting breastfeeding is compelling, lactating mothers face many challenges, especially during the time of exclusive breastfeeding, including limited or no maternity leave, demanding work commitments, and conflicting beliefs about breastfeeding practices. Such challenges make it difficult for mothers to follow the international recommendations.

Nutrition assessment, counseling, and support (NACS)

NACS can improve the effectiveness of PMTCT programs and the health and well-being of pregnant women, mothers, and babies participating in those programs.

Nutrition counseling and support should address the issues faced by women and children attending a mother-baby clinic. Basic information and, in most cases, teaching materials, are typically available from different sources for these challenges and concerns, which makes it easier for health facilities to incorporate them in the mix of services offered at the clinic. Although specific nutrition-related issues vary by location and/or context, there are several core considerations when nutrition counseling and support programs are planned:

- The links among nutrition, the health of a pregnant woman, and the healthy development of her unborn child, including the ramifications of low birth weight
- The link between proper nutrition and ART side effects, specifically the side effects that deter pregnant women and mothers from adhering to their drug regimens and increase the likelihood that their babies will acquire HIV
- The role of exclusive breastfeeding and extended breastfeeding in the health and well-being both of mothers and babies
- The introduction of complementary foods and liquids in a baby's diet
- The challenges of cultural beliefs and longstanding practices to breastfeeding and infant feeding
- Learning how to make the most nutritious use of available foods, including through cooking demonstrations
- The contributions of small kitchen and community gardens to improve the quality and diversity of available foods

Keep in mind: In many countries with large populations of people living with HIV (PLHIV), stunting is a common problem among children. Integrating nutrition counseling and support in the activities at a PMTCT mother-baby clinic can be an effective way to reach mothers and caregivers with important nutrition knowledge and skills that can help prevent stunting.

TIP All mothers are concerned about the health and well-being of their children. If nutrition counseling and support is effective in the PMTCT mother-baby clinic, it should be expanded to include all mothers and babies receiving MCH services at the facility.

Why nutrition assessment, counseling, and support?

HIV-positive pregnant women and mothers and HIV-exposed babies have better health outcomes if they are properly nourished. NACS should therefore be an integral part of every PMTCT program. Nutrition has not historically been a component of PMTCT programs; however, awareness is growing that the implementation of nutrition activities is an underused approach that can improve health outcomes for HIV-positive mothers and HIV-exposed babies.

For example, in South Africa's KwaZulu-Natal province, clinics have at least one nutritionist on staff who is available to work with PLHIV. These nutritionists report that HIV-positive mothers respond well to discussions about nutrition because of concerns about the health of their children. Nutitionists also see nutrition as a nonthreatening way to engage with PLHIV about ART adherence and retention. Discussions about nutrition can incorporate parallel reminders about the importance of ART as part of a healthy lifestyle for PLHIV.

Quality improvement tools and techniques

Basic, facility-led QI practices should be used to identify and implement practical ways to improve facility performance and client outcomes.

QI is a rich and diverse field that encompasses dozens of systems and methods for improving performance and outcomes in a wide range of sectors, including healthcare. The challenge for health facilities is to identify a system and/or method that can be effectively started and sustained by frontline staff who are typically working in difficult and demanding environments.

The QI practices used successfully in the PHFS approach to PMTCT were based on the Plan-Do-Study-Act (PDSA) cycle, which is proven and widely used globally. PDSA is a method that can be easily understood and easily implemented by the staff whose work will benefit from it.

PDSA cycle

To facilitate the implementation of the PDSA cycle at the facility level, PHFS used three specific tools and techniques: (1) QI teams; (2) change ideas; and (3) QI journals. These tools and techniques build on the straightforward nature of the PDSA cycle.

Plan: Identify an activity and/or outcome needing improvement; determine one or more actions that would contribute to an improvement in quality.

Do: Implement the action(s) at a scale where the effect(s) can be monitored accurately.

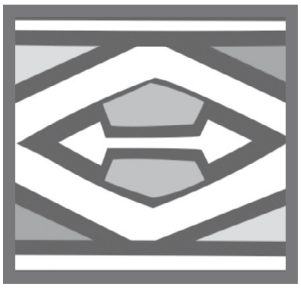
Study: Analyze the effectiveness of the QI action(s) to understand what happened: what worked and what did not work.

Act: If the QI action was effective, adopt the change and implement it widely; if the action was ineffective, adjust/adapt it and test it again or drop the action and identify a new one to improve the activity and/or outcome.

Why QI teams?

At the facility level, the team is the driving force behind the QI work. QI teams are essential to identifying and implementing the QI actions using the PDSA cycle. The team should include frontline staff—both facility-based and community-based—who have a solid understanding of PMTCT and/or MCH services and an interest in improving the quality of service delivery and the outcomes for mothers and children. It is essential for the QI team to have the full support of facility management; in some cases, it may be useful to have a management representative as a full participant on the QI team. The key activities of the QI team are included in section 16.1: QI teams, in the checklist on page 51.

QI teams function better when they have a limited number of members. Every member of the team should be fully engaged in the work of the team, including the team leader. There should not be members who are simply observers or opinion givers. It is likewise important to have the right members, including a mix of people with different perspectives and experiences (e.g., a health officer, a charge nurse, a pharmacist, and an outreach worker). At larger facilities, it may be necessary to have larger teams to ensure that different perspectives are included and to share the workload.



Why change ideas?

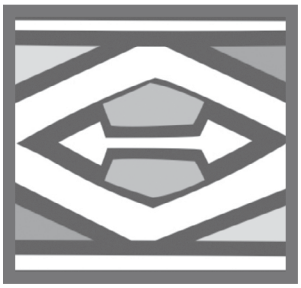
The Plan phase of the PDSA cycle is built on developing "change ideas" that can improve the quality of an activity or outcome. When the members of a QI team identify underperforming areas that affect the quality of service delivery and client outcomes, it is their job to develop change ideas to address the underperformance problems. The QI team knows its facility context best: a change idea channels the team's contextual knowledge into a proposed improvement. The change idea should specifically identify: (1) the issue that is being addressed; (2) the actions that will be taken to improve performance; (3) the person(s) who will take the necessary actions; (4) the schedule/timetable for taking the actions; and (5) the location where the actions will be taken.

For example, a performance problem could be that only 50 percent of mother-baby pairs are coming for regular follow-up visits. The actions to address this situation could be more regular contact by the health facility with the mothers, including biweekly visits from an outreach worker to communicate the importance of attending follow-up visits by the mother and another responsible family member (e.g., partner, grandmother). Basic questions about barriers to attendance can be posed to the mothers; weekly text messages can be sent to the mother by the health facility (if she has access to a mobile phone); and reminder slips on upcoming visits and reinforcement about the importance of coming to all follow-up visits can be integrated in the protocol when the mothers come to an appointment. Information about barriers to attendance that is collected by outreach workers can be reviewed, and ways to address the barriers identified and implemented.

Change ideas can and should be used to address any type of underperformance at a facility, ranging from the number of HIV-positive infants, to ART retention by HIV-positive mothers in the PMTCT program, to inaccurate or incomplete registers to track mother-baby visits at the health facility.

Change ideas are a central component of the entire PDSA cycle. They are developed in the Plan phase. They are implemented in the Do phase. They are assessed in the Study phase. They are adopted, adapted, or abandoned in the Act phase. They can lead to additional change ideas being developed as the PDSA cycle restarts.

Keep in mind: Frontline staff are the most likely source of innovative ideas and approaches to improve facility performance and client outcomes. Their knowledge and understanding of the issues and realities of day-to-day operations give them a unique perspective on what can be done to improve performance and outcomes. However, for many health systems, it is challenging to think of innovation and improvement as a bottom-up—as opposed to a top-down—process. Consequently, it is important to provide encouragement and support to frontline staff to be innovators.



TIP Vast amounts of information about QI are readily available on the Internet. Useful search parameters are different combinations of the following terms: PDSA, PDSA cycle, PDSA and healthcare, QI and healthcare, QI teams, QI tools, and QI project management.

Why quality improvement journals?

QI journals are a practical way to track how different change ideas perform and why they did or did not solve the problem(s) that they intended to address. A QI journal is a document that captures essential information and observations about a change idea from inception through implementation. When used regularly, it provides useful data to assess the performance of a change idea.

At a minimum, the journal should include the following fields and components:

- Identification of the facility
- Identification of the QI team and the lead implementers
- Improvement objective, including the description of the problem and a key indicator (e.g., percentage of mothers who come to their scheduled follow-up appointments each month, or the percentage of mothers and babies who have their weight and height/length taken and recorded at each visit)
- Planned and tested improvements, with brief descriptions, start-end dates, and comments on whether and how the improvement worked
- Run chart (by month) to show the outcome, by the key indicator
- Notes on the suitability and/or performance of the key indicator
- Notes on the lessons learned from implementing one or more improvements

Each change idea should have its own QI journal. Each journal is a dynamic document that should be updated regularly by the QI team members. The journal is a quantitative and qualitative record of a change idea's performance that helps the QI team determine whether the change idea should be adopted, adapted, or abandoned.

The QI journals are also useful resources for developing other change ideas. Possible solutions that worked in one area may be applicable to other areas; conversely, possible solutions that did not work in one area may work in a different one. In QI, every observation and finding, both positive and negative, are useful and can be the basis for new and better ideas and approaches.

Keep in mind: There is no single right way to implement QI practices. Most approaches can be easily adapted to work in the local context. The PHFS approach to QI was inherently flexible and adaptable, which is why it worked in so many different countries and contexts.

Coaching and mentoring

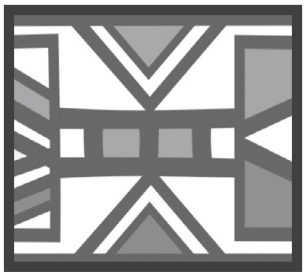
Coaches and mentors should provide regular support to frontline staff to implement the overall PHFS approach, including QI activities.

The core approach to QI included in this guide, and used by the PHFS, is straightforward. It relies on honest assessments of the strengths, weaknesses, successes, and challenges of the work being done with HIV-positive mothers and their HIV-exposed babies at the facility level. It also requires a commitment by frontline staff to actively participate in the approach as an integral part of their work with and for clients.

Despite the straightforward nature of the approach, training is an essential part of the process. Initial training, advanced training, and refresher training are all important ways to teach frontline staff about QI. Training should be supplemented with hands-on support and instruction provided by coaches and mentors who have a more direct relationship with and investment in the frontline staff doing the work.

The coaches should be trained professionals, who most likely have an affiliation with an implementing partner, government ministry, and/or department of health. The coaches should work closely with members of each facility's QI team to reinforce the knowledge and skills required to identify areas for improvement and to develop and implement solutions.

On the other hand, mentors typically come from within the ranks of frontline staff. They are people with a specific aptitude and interest in QI, who are also well-suited to work with their colleagues. They can provide day-to-day, on-the-job advice and support to help make QI an inherent part of facility-level work.



TIP A qualified cadre of coaches may reduce the need to hold formal training sessions for frontline staff on QI activities. Given the straightforward approach to QI, strong and capable coaches can launch QI activities at a facility using on-the-job training.

Why coaching and mentoring?

Coaches and mentors work in the real-world environment faced by frontline staff on a daily basis. Their effectiveness is based on their understanding of and experience with the realities of facility-level work, including workload, staff shortages, and resource constraints. Because they are "doers" and "teachers," coaches and mentors are well-placed to understand the challenges faced by frontline staff and how QI activities can best be implemented at different facilities and in different contexts.

Coaches and mentors also provide a level of quality control for the QI activities. They can and should think about how specific activities affect other QI activities. The nature of coaching and mentoring in this context means that they need to have more knowledge about and experience with the service delivery components of PMTCT (e.g., the provision of integrated services to mother-baby pairs, the importance of consistent outreach for retention in care and treatment, and the need for accurate and up-to-date record keeping). It is important to remember that coaching and mentoring for QI activities cannot and should not be separated from service delivery that is at the core of an effective PMTCT program.

QI coaching and mentoring is not an abstract exercise. It is directly linked to helping frontline staff consistently improve the performance of their PMTCT program.

Although their main objective is to provide support for the QI activities, the expertise of coaches and mentors is also helpful for understanding and improving the integrated service delivery activities that constitute the overall PHFS approach to PMTCT.

TIP A structured approach to knowledge sharing involving multiple facilities in a single district or county can create a friendly competition among implementers to improve their performance and outcomes. The "structure" can be built around a series of simple, cost-effective activities, ranging from staff exchange visits, organized multi-facility learning sessions, and regular webinars or conference calls.

Knowledge exchange

Frontline staff should share knowledge and experience with colleagues at other facilities to learn from one another and continue to improve their programs.

The firsthand knowledge and experience of frontline staff are a valuable commodity in the delivery of health services. Their understanding of what does and does not work in real-world settings is even more powerful when it is shared with colleagues facing similar challenges, whether they are colleagues working in the same facility, neighboring facilities, or distant facilities (e.g., other districts, provinces, and/or countries).

Understanding and appreciating the knowledge and experience of frontline staff are also valuable for policymakers and program planners, providing a practical and effective way to firmly ground their policy and planning work in the realities of the day-to-day circumstances and contexts faced by frontline staff.

To be effective, knowledge sharing should be a recurrent activity, happening frequently and regularly. It should be both a formal and an informal activity. Both are effective. Both contribute to improvements in service delivery and client outcomes, ranging from small to large. Informal knowledge exchange can occur naturally in a supportive work environment, in which colleagues are encouraged to share ideas and information about their activities and their clients. Much of the regular work of a facility-based QI team focuses on this natural sharing of knowledge and experience.

Formal knowledge exchanges are structured opportunities for implementers to share their insights (e.g., quarterly review meetings). Formal exchanges can be helpful at each facility and across multiple facilities. In general, formal approaches are useful for bringing together frontline staff from facilities across a wider area, including national conferences and international exchange visits.

TIP Including coaches and mentors in knowledge exchange programs is a useful way to leverage their expertise and their experiences working with different facilities and QI teams.

Why knowledge exchange?

The simple reason to commit to knowledge exchange is that it works. Sharing ideas and information, and learning from the knowledge and experiences of colleagues facing similar challenges are an efficient and cost-effective way to improve performance and outcomes.

Keep in mind: Knowledge exchange should be treated as an essential activity, not as something "extra" or "nice to have" when additional resources are available. Although expenses can be associated with larger-scale initiatives (e.g., a national conference), knowledge exchange can be a cost-effective exercise if it is properly scaled and carefully planned.

TIP Although community workers of all kinds can provide valuable services, peer mothers can be especially effective in working with women and babies who attend the mother-baby clinic. Their ability to relate to the concerns of other mothers and their understanding of babies make them compelling advocates and counselors. In the PHFS locations, the peer mothers were equally effective in providing support to mothers at the facility or in the community.

Community workers

Community workers, including peer mothers, should conduct outreach work to support retention in HIV care and treatment for mother-baby pairs.

A mother-baby clinic should have relationships with one or more cadres of community workers who have the ability to do outreach work. Possible cadres include community health workers, peer mother organizations, family support groups, and PLHIV support groups. Not all cadres of community workers have the same qualifications. For example, a trained community health worker is likely to have more specific health-related knowledge and skills than a peer mother. Conversely, a peer mother is likely to have a shared bond with another mother that gives her a certain credibility.

Every community worker needs to have a basic ability to empathize with mothers. They need the basic counseling skills required to encourage and support mothers to continue their regular visits to the mother-baby clinic and to stay on treatment. They should identify the barriers and challenges faced by mothers to remaining in care and on treatment, and they should share this information with frontline staff so that the issues can be addressed.

Keep in mind: The effectiveness of the PHFS approach derived from partnerships between organizations and people. No partnerships were more important than the ones between the healthcare providers and the community organizations that did the outreach work with mother-baby pairs participating in the PMTCT program. The combined knowledge and skills of the healthcare providers and the community outreach workers provided a better level of care and support to clients than either cadre did on its own.

TIP Given their connections with mothers, babies, and family members, community workers are well placed to help trace clients who stop attending the clinic. If the mother-baby clinic provides these workers with information about clients who miss appointments, they can follow up with the clients to understand what is happening. This approach allows for more routine follow-up, making it easier and more effective. It is another way for community workers to stay engaged with mothers and babies, especially ones who struggle to stay in care and on treatment.

Why community workers?

By actively and consistently engaging with mothers in their communities and in their homes, community workers leverage and strengthen the connection that mothers and babies have with the clinic. They provide the much-needed, and often missing, psychosocial support that keeps mother-baby pairs retained in care and on treatment. In the community and home settings, these workers also engage with other responsible family members (e.g., partner, grandmothers), whose influence affects a mother-baby pair's retention in care and on treatment.

Community workers have the ability to become the "eyes and ears" in the community for the mother-baby clinics. For example, they are likely to learn about pregnancies in the community and can refer these women—regardless of their HIV status—to the clinic for services, including HIV testing.

The consistent efforts of community workers to provide support to mothers and babies were widely acknowledged as vital to the success of the PHFS approach. The ability of these workers to create and maintain productive relationships with clients played a critical role in retaining the mothers and babies in care and on treatment.

Keep in mind: Community outreach can be a difficult and demanding job. Historically, a significant percentage of community work has been done by volunteers; however, this approach places an undue burden on the volunteers and the communities they serve. It can lead to inconsistent and unsustainable activities. Consequently, facilities should prioritize compensating community workers for their efforts in some reasonable way, which reinforces the value of their contributions to the objectives of the program (e.g., stipend; honorarium). At a minimum, facilities should ensure that the expenses incurred by community workers (e.g., transport; mobile phone credit) are fully reimbursed.

Regular communication with mothers

Regular, two-way communication with mothers about how and why to stay in care and on treatment is an essential part of a PMTCT program.

Retaining clients in care and on treatment has been a persistent problem for the HIV response in many countries. Retention is especially challenging for PMTCT programs because it requires retaining both mothers and babies in care, retaining mothers on ART, and ensuring that HIV-exposed infants complete their own ARV and cotrimoxazole prophylaxis. The effectiveness of activities to support retention in care (e.g., breastfeeding practices, nutrition counseling and support, psychosocial support, growth monitoring, vaccinations, confirmatory HIV testing, and family planning) and retention on treatment (e.g., lifelong ART for mothers and short-term prophylaxis for babies) depend on an open, honest, and collaborative relationship between clients and providers.

There are many reasons why retention is difficult for clients, ranging from transport to the mother-baby clinic; to stigma and discrimination; to misinformation, misunderstandings, and misgivings about long-term ART. Maintaining an open, honest, and collaborative relationship with clients and their family members is an important way to identify and understand the issues that are barriers to retention.

Thinking about ART retention: In multiple countries, mothers are known to stop ART when their babies complete the PMTCT program and are confirmed as HIV-free. There are many reasons why this happens. For example, after an extended time on ART (i.e., when they are participating in the PMTCT program), mothers feel healthy and question whether they need to continue on treatment. Other mothers may feel that the only reason to be on ART is to ensure that their baby is HIV-free. When their baby's HIV-negative status is established, they do not want to continue with their own treatment. Because of concerns about stigma, discrimination, and violence, some mothers do not tell their male partners that they are HIV positive and/or on ART. Other mothers may be unwilling to trade the psychosocial support they get from a PMTCT program for the more impersonal and inefficient systems at ART centers for the general population. Addressing such concerns is an ongoing and evolving challenge for PMTCT programs.

TIP PMTCT programs should be willing to adjust their approaches to care and treatment if this will address the retention problems faced by mothers. The shift to seeing mother-baby pairs during a single visit, as opposed to requiring separate visits for mothers and babies, is an example of an adaptive approach. Using a QI method can be an effective way to identify solutions to issues and challenges that deter retention among mothers.

Why regular, two-way communication with mothers?

Ensuring that mothers understand how and why to stay in care and on treatment requires a sustained and integrated approach to communication with them. It is important that frontline staff in PMTCT programs understand and help address the challenges that mothers face with retention. It can be useful to think of regular, two-way communication as a dialogue or a conversation between the mothers and the frontline staff.

The conversation about retention in treatment should be part of every aspect of a PMTCT program. For example, frontline staff should investigate ART adherence during every visit, asking not only whether the mother is taking her ARVs but also exploring any reasons that she may not be taking them. Formal counseling sessions by professional or lay counselors should focus on understanding and addressing problems with adherence and retention as opposed to simply lecturing clients about their importance. Nutrition programs should integrate retention messages in their discussions with clients. Peer groups and outreach work should leverage real-world knowledge and experiences to help mothers find practical ways to stay in care and on treatment.

A commitment to regular, two-way communication benefits both the mothers and the frontline staff in the PMTCT program. Mothers have a better understanding of why and how to stay in care and on treatment, and frontline staff have increasingly better knowledge and understanding of the retention challenges faced by mothers and of practical recommendations on how to address them.

Keep in mind: For many mothers, it is difficult or impossible to attend all PMTCT appointments. They may decide to have a grandmother or another family member bring the baby to appointments. In such cases, the PMTCT program has to think carefully and creatively about how to communicate with the mother about retention. For example, where they are available, community outreach workers can have this conversation with mothers.

Metrics and data sets

Carefully-selected metrics and data sets should be used to track and improve the performance and outcomes of PMTCT programs.

Improving and sustaining the quality and effectiveness of a PMTCT program depend on identifying, collecting, and using data that are relevant to facility performance and to client outcomes. It is essential that the metrics and the data sets have a clear value to the frontline staff who are providing PMTCT and related services to mothers and babies.

Frontline staff from a range of facilities should be consulted to ensure that the core metrics and data sets are broadly applicable, and that the data can be aggregated across facilities to provide a big-picture perspective on the PMTCT work. However, facilities should also have the latitude to use metrics and data sets that are specifically selected to address their own situations. Depending on how many facilities use the same metrics, these data may or may not be useful to aggregate.

In most health systems, an overabundance of indicators are used (or could be used) to track PMTCT activities. (Appendix B provides an example of a comprehensive list of relevant indicators.) The challenge is to identify a manageable set of metrics that generates useful and usable data for tracking and improving performance and outcomes. The metrics may need to change over time to ensure that the right data are collected to continue to improve the PMTCT program and/or to sustain improvements that have already been made.

TIP Involve frontline staff early and often in discussions about metrics and data sets. Including frontline staff in national-level discussions about the monitoring and evaluation of PMTCT activities is an effective way to ensure that facility-level issues and concerns are reflected in the monitoring and evaluation approach.

Why should metrics and data sets be appropriate and practical?

In recent years, frontline staff have been tasked with capturing more and more data about facility operations and client activities/outcomes. Much of the data that are collected have little or no value at the facility level and are used primarily for reporting purposes. In many settings, it is not clear how or whether the reported data are actually used at the subnational or national level.

Monitoring and evaluation systems should prioritize metrics and data sets that have demonstrable utility at the facility level, including usefulness for QI activities and longitudinal tracking of facility performance and client outcomes. Given the high burden of data collection at the facility level (discussed in the next section), it should be clear to everyone why data for "reporting purposes" are collected and how they are used.

It is also important to track the continued relevance of metrics and data sets, especially for QI work. For example, during the implementation of the PHFS, some facilities continued to use the same metrics even when it was clear that performance had stabilized at a high level (e.g., percentage of HIV-exposed infants tested for HIV at six weeks). As a result, facilities were spending significant time and energy, including holding regular QI meetings and completing QI journals, to track what was essentially stable performance. Although routine tracking of select indicators is warranted, facilities often overinvest in tracking stable indicators without considering other areas where they could improve their performance. The challenge is to ensure that results for the core indicators stay at a high level—essentially, conducting quality assurance—while also addressing other issues that have an effect on facility performance and client outcomes.

Reducing the burden of primary data collection

Reducing the burden of primary data collection—filling in patient cards and completing multiple registers, etc.—enables frontline staff to provide better services to clients.

Accurate client and facility records are a vital part of healthcare. However, current approaches in many countries, including those using electronic medical record systems, are so cumbersome that they reduce the time available by frontline staff for client care.

Many facilities struggle with data collection and/or record keeping because of the unwieldy and outmoded systems required by their governments. Such systems, which are largely paper-based, require frontline staff to enter and reenter data in multiple places, including client records kept at the facility, client records kept by the client, and numerous registers based on the client's status or the services provided. In many settings, the data are reentered for reporting to higher authorities.

TIP Hiring data specialists to handle data collection and to manage data quality can be an effective way to ensure that frontline health staff are focused on client services. Data specialists are specifically trained to work with data, so their skills are a better match to the task. They can also support frontline staff to analyze the data and use the findings to improve facility performance and client outcomes.

Why reduce the burden of primary data collection?

For most frontline staff, data collection is an ever-increasing burden, which comes on top of their responsibilities to provide services to clients and ensure the continuing operation of their health facility. The burden of data collection also limits the ability of frontline staff to analyze and use data to improve facility performance and client outcomes. In general, data should only be collected if they are going to be used, especially in ways that improve client outcomes.

Another important reason to reduce the burden of primary data collection is to improve the quality of the data that are collected. Concerns about inaccurate or incomplete record keeping at health facilities are valid, given the importance of high-quality data sets to manage client care, facility operations, and health systems. However, data collection is typically seen as an adjunct issue for frontline staff to address, not as a specific issue requiring dedicated resources if it is going to be effectively and sustainably resolved.

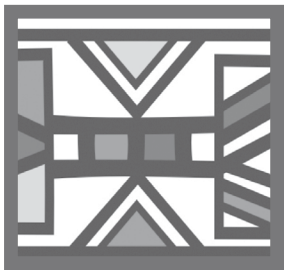
Keep in mind: There are three primary ways to reduce the burden of data collection at the facility level: (1) limit the number of indicators/metrics that are tracked by prioritizing the collection of practical and actionable data; (2) streamline the process (e.g., reduce the number and/or redundancy of forms and registers used to collect data); and (3) increase staffing levels, including the possibility of a dedicated cadre of data specialists to ensure that data collection receives the attention it deserves.

Improving long-term treatment for all HIV clients

Leverage the lessons and effectiveness of the PHFS approach to improve the provision of long-term treatment and care for all HIV clients.

The legacy evaluation of PHFS revealed a consistent concern among frontline staff about the drop in ART retention of HIV-positive mothers once they had completed the PMTCT program and were required to shift to the general ART center for HIV services. Although these concerns were largely anecdotal, they were supported by comments from mothers who placed a high value on the integrated services provided by the mother-baby clinics.

Both frontline staff and mothers had serious concerns about the poor quality of services provided at general ART centers. The problems were surprisingly uniform across countries. They included overburdened facilities; long waits for appointments; overworked staff with little time to listen to or address the clients' issues; repeat visits because of the lack of medications or service availability; and the lack of integration with other health services, leading to multiple visits to a health facility. In all six PHFS countries, there were also high rates among ART clients of stopping and restarting drug regimens), which can be an indication of issues with service delivery.



Why should the lessons and effectiveness of the PHFS approach be leveraged for all HIV clients?

The success of the PHFS approach was its ability to retain HIV-positive mothers on treatment and to retain those mothers and their HIV-exposed infants in care. As more and more female and male HIV-positive clients gain access to ART, the bigger challenges will be retention: keeping them on treatment and in care to reach viral suppression, improve their personal health and well-being, and reduce their ability to transmit HIV to other people.

The PHFS approach needs to be modified to work at the general ART centers. However, adaptability to specific populations, settings, and contexts is built in to its basic QI tools and techniques. Moreover, the underlying principles of the PHFS approach (e.g., efficient appointments, better service delivery, coordinated facility and community support programs, long-term retention on treatment, and improved client outcomes) are completely in line with the goals of a principled HIV treatment program.

Keep in mind: Extending the PHFS approaches to general ART centers—for example, by starting with HIV-positive mothers who transfer to these centers at the end of the PMTCT cycle—could have a positive effect on broader ART retention among PLHIV.

Check out the checklists

To make it easier to understand and track the approach's implementation process, this guide provides four interrelated checklists that describe the activities that should be addressed as part of the process. The checklists suggest ways to move forward with the activities, based on experience with PHFS implementation in different countries and contexts.

There is no single, right way to implement the PHFS approach. That said, most of the key activities are applicable in most settings. Some may have already been addressed in a given context, leading to focusing on other, more pertinent priorities. Addressing even a few of the activities in the checklists that follow can lead to measurable program performance improvement. **An editable file of these checklists in Microsoft Word is available here:** https://www.measureevaluation.org/resources/publications/tl-20-80/.

The checklists contain extensive information and directions drawn from lessons learned in the field; however, they do not necessarily address every issue or contingency relevant to a setting or situation. It is therefore important to review the issues and activities with full awareness of the local context and local dynamics. But do not be too quick to minimize or disregard any key activities in the checklists. Activities range from national planning to health facility implementation level. Each section should be reviewed to determine what is most applicable in your context.

Checklist #1: Preparing to launch the PHFS approach

Preparation is essential for a smooth and efficient launch of the PHFS approach in a new setting. Paying proper attention to the issues and activities in this checklist helps lay the groundwork for the implementation of the PHFS approach at national, district, and facility levels.

Checklist #2: Launching the PHFS approach

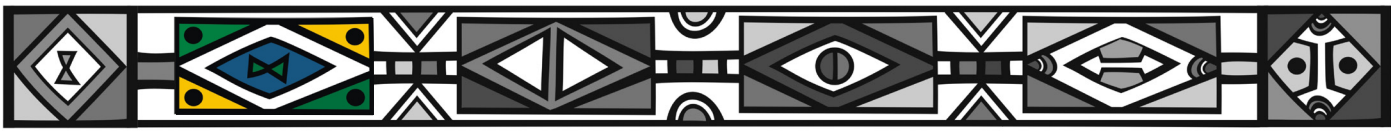
The success of the PHFS approach depends on the readiness and engagement of key people at district and facility levels. These people play a critical role in ensuring that the facility and its staff can support the implementation of the PHFS approach.

Checklist #3: Sustaining the PHFS approach

Improving the health outcomes of HIV-positive mothers and their HIV-exposed babies depend on sustaining the core components of the PHFS approach. There are specific issues that should be factored into planning and into building staff and coaching capacity to sustain the implementation of the approach.

Checklist #4: Extending the PHFS approach

The knowledge and skills at the core of the PHFS approach can be used to improve facility performance and client outcomes in other departments, centers, and/or programs at health centers.



CHECKLIST #1: PREPARING TO LAUNCH THE PHFS APPROACH

Several issues should be addressed before the PHFS approach is implemented at health facilities. In most cases, these issues require that specific activities are completed and related decisions are made by relevant officials and/or managers. However, there is not a rigid sequence for addressing the different issues during this preparation phase. Work on many of the issues/activities can proceed at the same time. It is important to secure the necessary approvals for the basic proposal (sections 1.1 and 1.2) before investing substantial time in the other preparatory steps.

It is likewise important to take a common-sense approach to the preparatory work. Be sensible and resourceful. For example, identify champions and allies who can help with the activities and the approvals. Move forward with the activities that can be done more quickly and easily to build momentum for the work. Be open and available to educate stakeholders about the PHFS approach and its benefits for clients and providers. Be patient but also be persistent.

Keep in mind: The success of the PHFS approach is grounded in the provision of integrated services to mother-baby pairs at dedicated mother-baby clinics that are supported by consistent community outreach activities. Ensuring that these critical elements are in place, and having them supported by a robust QI process that is committed to the integrity of the specific activities and to the overall approach, should be the priority.

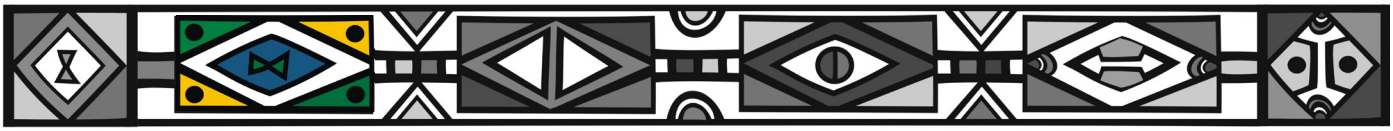
1. Planning and approval

☐ **1.1.** Identify the key stakeholders who need to be involved in planning and approving the launch and implementation of the PHFS approach, including the designated lead stakeholder who will take responsibility for the PHFS activities.

- In addition to overall responsibility for management and implementation of the PHFS approach at participating facilities, the lead stakeholder may also have contractual responsibilities (e.g., contracts with technical assistance providers [page 43] or the agreements with coaches and mentors [page 46]).

☐ **1.2.** Work with key stakeholders to develop a basic proposal that addresses how the PHFS approach's key activities will be implemented at national and subnational levels. (Note: Key stakeholders can include HIV and PMTCT programs in national ministries or subnational departments of health, funding partners, and implementing partners.)

- Service delivery
  - ☐ Mother-baby pairs (page 12)
  - ☐ Mother-baby clinics (page 14)
  - ☐ Integrated services (page 16)
- QI practices
  - ☐ Facility-level use of QI tools and techniques (page 44)
  - ☐ Coaching and mentoring (page 46)
  - ☐ Knowledge exchange (page 46)



- Stakeholder engagement: Oversight
  - ☐ Collaborative leadership
  - ☐ Supervision and support systems
  - ☐ Implementation plan/protocol
  - ☐ Performance indicators (page 45)
- Stakeholder engagement: Implementation
  - ☐ Outreach activities (page 50)

☐ **1.3.** Secure the necessary approvals at national and/or subnational levels to allow health facilities to implement the core PHFS approach, including key activities in service delivery, QI practices, and stakeholder engagement.

2. Site selection

☐ **2.1.** Develop a core set of selection criteria to determine where to implement the PHFS approach. Key selection criteria will vary by country. Examples of relevant criteria are:

- High rates of mother-to-child transmission
- Low rates of participation in ANC and postnatal care
- Low rates of retention on ART and in PMTCT care
- Low rates of viral suppression
- Capacity/performance of the health system
- Capacity/readiness of a facility and its staff

☐ **2.2.** Use the criteria to identify facilities where the PHFS approach could and should be implemented.

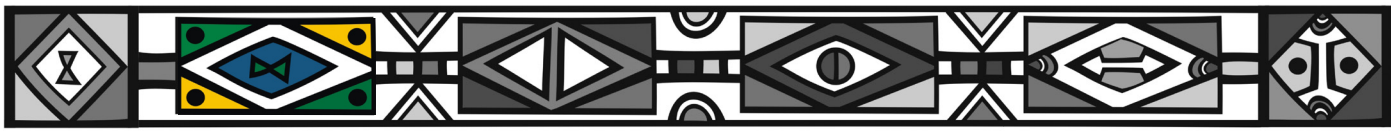
☐ **2.3.** Conduct a rapid consultative assessment of the identified facilities to determine their capacity and readiness/willingness to implement the approach.
Note: The assessment can be conducted by a technical assistance provider.

☐ **2.4.** Use the results of the facility assessments, and other relevant, context-specific inputs, to select facilities at which to implement the PHFS activities.

- Consider the proximity of sites to each other when making the selection. Clusters of sites in a given catchment area can be an efficient and effective way to provide technical support and to build capacity.

☐ **2.5.** Work with managers and staff at the selected facilities to plan the launch of the PHFS approach.
Issues to address are:

- An initial facility plan to identify where and when the mother-baby clinic could operate.
- A preliminary staffing plan that matches qualified and available staff with the different PHFS activities.
- A basic assessment of areas where technical assistance may be required to effectively launch PHFS activities (e.g., service delivery, QI, counseling, community outreach, nutrition, data collection/quality/use).
- A basic budget to implement the PHFS approach, including any up-front costs (e.g., facility refurbishment) and specific recurring costs that are not covered by the facilities' operating budgets (e.g., funding for outreach workers).



3. Community partners

☐ **3.1** Identify and reach agreement with one or more organizations or programs in the local community (i.e., the catchment area for the participating health facility) and with the people who are willing and able to do the outreach work to support the PHFS activities.

- Depending on the community, the organizations/programs could include a formal cadre of community health workers associated with the facility, an informal group of peer mothers, or a local organization of PLHIV.
- The two most important factors for any partner selected are its credibility in the community and its ability to connect with clients who are (or should be) seeking services at the mother-baby clinic.
- The key activities of the community partner are counseling/support and client tracing. Counseling/support covers several issues, including early and regular ANC for pregnant women; retention in care for mother-baby pairs; retention on ART for HIV-positive mothers; and proper nutrition for mothers, babies, and other family members. Client tracing is designed to find mothers and/or babies who have been lost to follow-up and to get them back into care and treatment.

☐ **3.2** Define and establish the relationship between the health facility and the community organization(s).

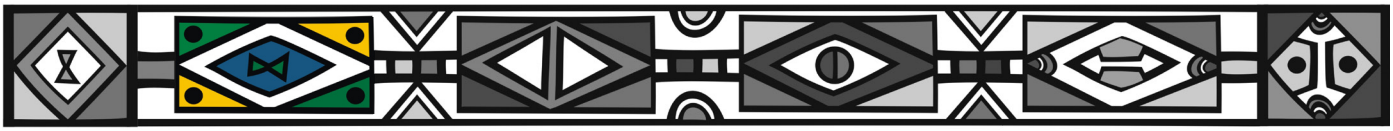
- Identify the person or persons at the facility and the community organization(s) that will be responsible for coordinating the community activities and ensuring their quality.
- Develop a basic scope of work for the organization and its community workers, including activities, responsibilities, oversight, and accountability.
- Develop a basic agreement between the facility and the community organization(s) covering their respective responsibilities.
- Depending on the context, participating community organizations can be funded to provide outreach support. If funding is available, the agreement should describe the specifics of the arrangement, including any direct compensation for the community workers (e.g., stipends, travel allowances).

☐ **3.3** Develop a simple training curriculum for the outreach workers to give them the knowledge and skills to provide community and household-level support to mothers.

4. Technical assistance

☐ **4.1.** Determine whether technical assistance in any area is needed and/or available to implement the PHFS approach. Technical assistance is not a required component of the approach. Questions to consider are:

- Are sufficient skills in place at participating facilities to implement the approach without technical assistance?
- Can coaches and mentors provide any required technical assistance, limiting the need for specialized providers?
- Are other technical assistance options available (e.g., online resources) that could limit the need for specialized providers?
- Is cost-effective technical assistance available in the country and/or sufficiently near the implementing facilities to be useful?



If technical assistance is required:

☐ **4.2.** Draft concise terms of reference for technical assistance providers with the capacity to provide necessary support to the facilities.
- The terms of reference should include support for the launch of PHFS activities and their ongoing implementation.
- Note: If coaches and mentors are going to provide technical assistance (section 4.1), the terms of reference can be used to describe the additional responsibilities.

☐ **4.3.** Identify and select one or more technical assistance providers with the capacity to adequately cover the different areas of expertise and the participating facilities.
- Technical assistance providers can come from government, civil society, or the private sector. Their role is to provide as-needed support for the different aspects of the PHFS approach, including PMTCT services, QI, nutrition, and community outreach.

☐ **4.4.** Collaborate with the selected technical assistance provider(s) to develop an implementation plan and timeline that outline their initial and ongoing responsibilities.

5. Services

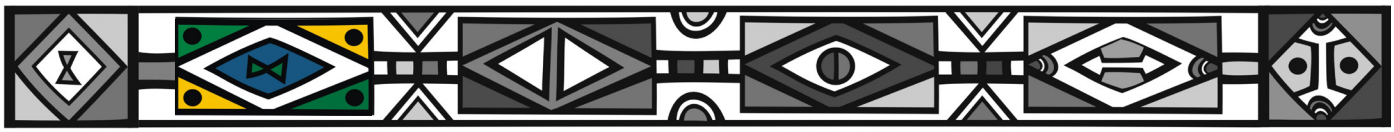
☐ **5.1.** Create a schedule of services for clients that need to be available at the mother-baby clinic.
- The goal should be to ensure that all relevant services are available during each visit to provide good quality of care and to make efficient use of both the clients' and providers' time.
- The schedule should be aligned with national guidelines or standard operating procedures for the provision of PMTCT services to mothers and babies.

☐ **5.2.** The services that should be on the schedule are:
- General health and well-being (mother and child)
- ART counseling and other services to support adherence and retention (mother)
- ARV dispensary (mother)
- HIV testing (early infant diagnosis, polymerase chain reaction [PCR], rapid test) (child)
- Viral load testing (mother)
- Breastfeeding practices (mother)
- Growth monitoring (child)
- Nutrition services (mother and child)
- Family planning (mother)
- Immunizations (child)
- HIV testing for partners

Note: Consider whether there are other relevant services.

6. Quality improvement practices

☐ **6.1.** Identify and agree on a simple set of QI practices that can be easily implemented at the mother-baby clinic.
- The PHFS approach was built around the PDSA cycle, which is a well-known and widely used QI tool (page 22).



- PHFS facilities typically integrate three basic practices in a straightforward and effective approach:
  - QI teams: The teams are those "who" are responsible for the QI work (page 23).
  - Change ideas: The change ideas identify "what" gets done, "when" it gets done, and "where" it gets done (page 25).
  - QI journals: The journals are a way to track the implementation and performance of the change ideas once they are implemented, including "how" and "why" they worked or did not work (page 25).
  - Note: Identifying, understanding, and tracking the "who, what, when, where, why, and how" are an essential part of every QI initiative.

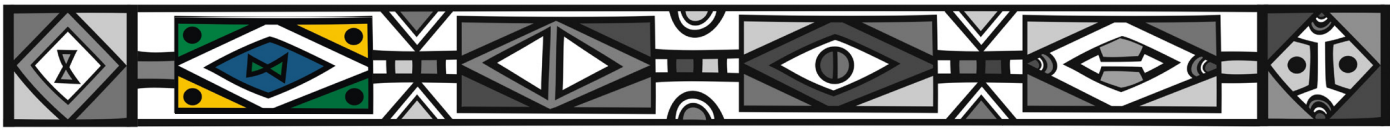
☐ **6.2.** Identify and agree on the goals of the QI efforts. It can be useful for the objectives to be specific and ambitious. For example:
- 95% of HIV-positive mothers retained on ART
- 95% of mother-baby pairs retained in care
- Basic nutrition assessments and counseling for all mothers and infants provided during every visit
- Growth monitoring of all HIV-exposed infants performed during every visit
- Improved completeness and accuracy of client and facility data

☐ **6.3.** Identify and agree on measures and data sets that will be used to track the performance of the mother-baby clinic.

7. Performance metrics and data sets

☐ **7.1.** Identify and document a primary set of metrics and data sets that will be used to track facility performance and client outcomes.
- Review existing metrics and data sets used at the facility level to determine what information is available and useful for tracking performance and outcomes at the mother-baby clinic. It is important to understand why the metrics and the data are useful, and how they will be used to track and improve performance and outcomes at the facility.
- It is also important to consider how the data will be aggregated across facilities to look at broader patterns and trends in facility performance and outcomes. Drawing lessons from aggregated data may require additional qualitative data collection and analysis to understand the different contexts.
- Determine whether current measures and/or data sets are adequate.
- The measures should be highly practical, focusing on data that can be used to track and improve performance and outcomes.

☐ **7.2.** Identify and document additional measures that can be added to the primary set as facilities implement their QI activities and see performance improvements (page 34).



8. Coaches and mentors

☐ **8.1.** Develop a core set of qualifications for coaches and mentors who will provide support services to the facilities.
- Key qualifications are:
  - o Topical knowledge and skills (e.g., PMTCT services, client counseling, QI, record keeping, and data collection/quality/use). Note: Not all coaches and mentors need to have knowledge and skills in all topical areas; however, collectively, it is important that available coaching and mentoring cover all key topical areas.
  - o Strong interpersonal skills (e.g., listening, verbal and written communication, collaboration/team building, problem solving, and enthusiasm/motivation).

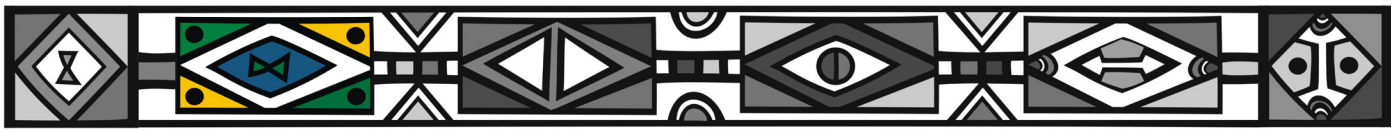
☐ **8.2.** Develop the basic terms of reference or scope of work for the coaches and mentors, including an expected level of effort that considers the number of facilities supported.
- Initially, facility and community staff are more likely to need a coach (i.e., an instructor/teacher) to ensure that they understand the different practices, and are implementing them in an efficient and effective way.
- Over time, staff will benefit more from having a mentor (i.e., an advisor) who collaborates with them to solve problems and improve performance.

☐ **8.3.** Identify and select a roster of coaches and mentors using the core set of qualifications listed above.

☐ 8.4. Agree with the selected coaches and mentors on their tasks, their level of effort, and the institutional and management support they will receive.
- Depending on the context, the agreement may be either formal or informal. For example, a formal agreement could be a fixed contract to provide specific services. An informal agreement could be a shift in current job responsibilities enabling a coach or mentor to spend time supporting the PHFS sites.
- Determine how the activities of the coaches and mentors will be managed, including scheduling, oversight, and accountability.
- Determine how the coaches and mentors will be compensated for their work; (e.g., specific compensation for coaching/mentoring tasks; covered under their compensation arrangements; compensatory time).

9. Knowledge exchange

☐ **9.1.** Identify formal and informal opportunities for frontline staff at facilities implementing the PHFS approach to share experiences and insights with colleagues in their own facility and at other facilities. Examples of knowledge exchange are:
- Frequent (e.g., monthly) exchange of data among participating facilities seeking to improve performance in similar areas (i.e., change ideas and the corresponding run charts to track performance when the idea is implemented).



- Regular meetings (e.g., quarterly) among QI team members at participating facilities in a specific and manageable geographic area (e.g., district; subdistrict).
- Exchange visits between facilities.
- Annual conference to share knowledge and experiences.

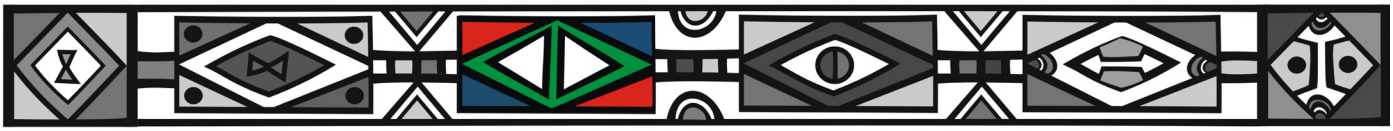
10. Tools and training

☐ **10.1** Use a facility assessment tool to evaluate the capacity and readiness of health facilities to implement the PHFS approach, including service delivery and QI practices. (See section 2, Site Selection, above.)

☐ **10.2** Use the outline of the orientation/training program provided in Appendix A to develop a streamlined approach to prepare facility and community staff to implement the PHFS approach. This activity can be done by a selected technical assistance provider.

- Key topics:
  - o Service delivery (page 16)
  - o QI practices (page 22)
  - o Stakeholder engagement (page 41)

☐ **10.3** Modify/expand the above-mentioned training program to prepare the QI coaches/mentors to provide support services to facilities. This activity can be done by a selected technical assistance provider.



CHECKLIST #2: Launching the PHFS Approach

These activities should be led by one or more people who are willing to actively promote and push for the implementation of the PHFS approach. Ideally, a group of champions would include people who work at the national, subnational, and facility levels as a way of demonstrating the breadth and depth of the commitment to the approach.

11. Human resources

☐ **11.1.** Finalize the staffing plan for the operation of the mother-baby clinic. The staffing plan should identify who will be involved, what will they be doing, and when they will be doing it.
- Staff assigned to the mother-baby clinic are likely to have other responsibilities in the broader facility (e.g., general MCH services) and in the staffing plan. Therefore, the operating days and times for the mother-baby clinic need to balance any competing demands on their time.

☐ **11.2** Finalize the staffing plan for the outreach work, including the role of community organizations. Identify who will be involved, what they will be doing, where they will be working, and when they will be working.
- Work closely with the community organization(s) that will provide outreach services to develop this plan.
- Consider how facility-based and community-based outreach workers will coordinate and collaborate to provide services and retain clients in care.

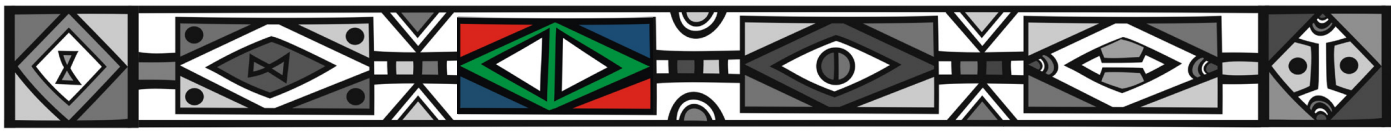
☐ **11.3.** Identify and select staff, including facility-based and community-based workers, who will be implementing and/or overseeing the PHFS approach.

☐ **11.4.** Conduct an orientation and training program for the selected staff in the key activities relevant to their work. Appendix A provides an outline of an orientation/training program.

12. Clinic logistics

☐ **12.1.** Select where the mother-baby clinic will be held at the health facility.
- If possible, set aside a separate room (or rooms) for the clinic.
- Consider where clients will wait for their appointments.

☐ **12.2.** Identify and put in place the equipment and supplies needed to provide integrated services for mother-baby pairs at the clinic.
- Accurate weighing and measuring equipment are essential for growth monitoring and nutritional assessments.
- Be sure to set aside secure storage for ARVs, given the high value that mothers place on picking up their drugs at the mother-baby clinic.
- If possible, client records for the mother-baby pairs should be stored in the clinic to ensure easy access.



13. Operations

- ☐ **13.1.** Designate specific days and/or times for the PHFS clinic serving pregnant women and mother-baby pairs.
  - Several factors determine when the clinic can be open, including the preferences of clients, the availability of staff, and the availability of space.

- ☐ **13.2.** Agree on what services will be available for mothers and babies at the clinic (page 14).

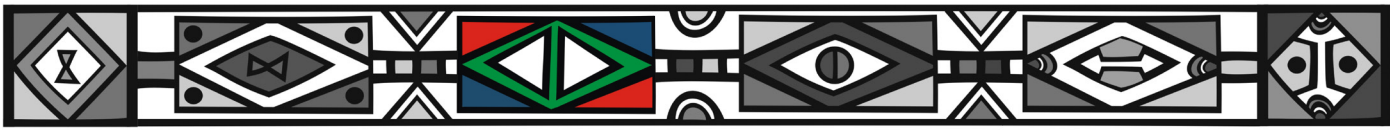
- ☐ **13.3.** Set up an appointment system that can schedule and track joint visits for mother-baby pairs.
  - This system is likely to be an informal modification or workaround to the facility's appointment system.

- ☐ **13.4.** Set up a simple record keeping system that can keep track of the mother-baby pairs, including the critical information both for mothers and babies (e.g., height/length and weight, growth monitoring, ART regimen, infant HIV test, and mother's viral load testing).
  - This system is likely to be an informal modification or workaround to a record keeping system (e.g., client cards and registers).
  - Ensure that staff have ready access to client information both for mothers and babies at every appointment.

- ☐ **13.5.** Set up a coordination system to ensure that clinic staff and outreach workers are providing clients with consistent and complementary information, guidance, and support.
  - When clinic staff and outreach workers have a constructive and collaborative relationship, clients receive more integrated services and more effective support that extends from the clinic to their communities and homes.

- ☐ **13.6.** Set up a system for clinic staff and outreach workers to trace the mother-baby pairs who are lost to follow-up.
  - Reducing loss to follow-up is a critical component of PMTCT programs. Its success depends on close coordination and collaboration between clinic staff and outreach workers who can follow up in the community.

- ☐ **13.7.** Establish a positive, client-centered atmosphere in the clinic that makes mothers and babies feel welcome and supported.
  - The atmosphere in the clinic plays an important role in retention in care. A positive, client-centered atmosphere, combined with the delivery of good-quality services, are an effective way of keeping mothers and babies retained in care. A welcoming atmosphere facilitates better communication between mothers and staff. It reduces stress and anxiety among the mothers and babies, encourages mothers to return for their next appointment, and encourages mothers to be more engaged in their care.



14. Outreach education

- ☐ **14.1.** Develop and launch a simple, ongoing outreach education program to ensure that community members, including current and prospective clients, their partners, family members, and community influencers are aware of the benefits of the PHFS approach.
  - Topics and benefits to discuss in the outreach program are streamlined service delivery (i.e., mother-baby pairs, mother-baby clinics, and integrated services); improved health outcomes (i.e., HIV-free survival for babies and viral suppression for mothers); reduced stigma and discrimination at the mother-baby clinics; and the availability of rapid HIV tests for partners.

15. Messaging

- ☐ **15.1.** Encourage mothers to continue with the mother-baby pair appointments (i.e., both mothers and babies come to all appointments) through the time of their babies' PMTCT "graduation," which is typically at 24 months (WHO, n.d.).
  - Ensure that mothers know the importance of the regular visits to the mother-baby clinic for services, including growth monitoring, immunizations, and HIV testing for the babies, and for general checkups for both mothers and babies to ensure their health and well-being.
  - Acknowledge the fact that some mothers will not maintain the mother-baby pair visits through to graduation, but encourage them to identify a consistent caregiver who will take responsibility for bringing the baby to his/her appointments. Even if the mother cannot continue with the mother-baby pair appointments, it is vital that the baby come to all scheduled appointments through to "graduation."

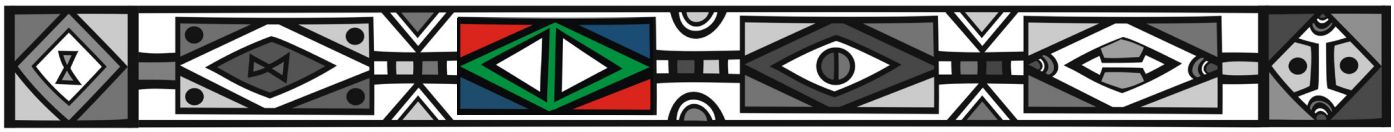
- ☐ **15.2.** Educate mothers on the benefits to themselves and to their babies of staying enrolled and active in the PHFS program (e.g., HIV-free survival).

- ☐ **15.3.** Promote and support exclusive breastfeeding for the baby's first six months and extended breastfeeding through 24 months.

- ☐ **15.4.** Educate mothers on the benefits of lifelong ART for themselves, including the ability of ART to reduce the transmission of HIV (e.g., the U=U or Undetectable = Untransmittable campaign).

- ☐ **15.5.** Encourage and support mothers to share and learn from each other during their time at the clinic about the health and well-being of themselves and their babies (i.e., informal support groups).

- ☐ **15.6.** Identify opportunities to bring mothers and babies together on clinic days/times to share relevant information and/or lessons (e.g., breastfeeding practices, infant/child development activities, nutritious meal planning and preparation, and the importance of HIV testing for partners).



16. QI tools and techniques

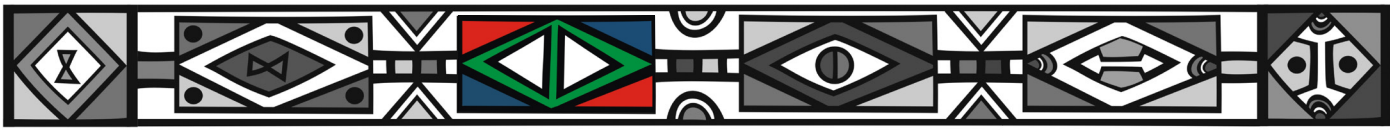
The rollout of QI tools and techniques may benefit from the support of a technical assistance partner who has knowledge and experience using these tools and techniques, especially at healthcare facilities. It is important to remember that the PHFS approach was built around the PDSA cycle, which is a well-known and widely used QI tool (page 22). In the PHFS approach, this cycle is supported by the use of QI teams, change ideas, and QI journals.

☐ **16.1.** QI teams: Who will participate? (page 23)

- Educate frontline staff, including facility personnel and affiliated community-based workers, on the reasons to implement QI practices at the clinic, including the benefits to them and to their clients (e.g., better quality services, better client outcomes, and reduced stigma and discrimination).
- Encourage/invite a limited number of people to serve on a core QI team. The number will vary based on the size of the facility and its operations.
    - Team members should have the knowledge, skills, and experience to deliver PMTCT and/or MCH services to mothers and children.
- Encourage/invite other staff members to participate on the QI team if they have an identified need or interest.
    - It is important to remember that QI is an inclusive activity, not an exclusive one.
- Identify one or two team members to lead/coordinate the activities of the group.
- Agree on the basic operations/activities of the QI team.
- Schedule and hold regular meetings (e.g., once a week or once every two weeks).
    - The meetings should be efficient, engaging, and interactive. They should not be hierarchical or restrictive.
- Collect and review relevant indicator data to monitor performance on a weekly, monthly, quarterly, and annual basis.
- Plot indicator data on run charts to better visualize performance trends.
- Assess performance against the relevant indicators and objectives.
- Discuss the challenges and/or barriers to improving performance.
- Identify promising change ideas and how to implement them.
- Track and assess the effectiveness of the change ideas to determine their effects.
- Discuss how to sustain the relevance of the QI practices over time, including identifying new issues to address as performance against existing metrics and objectives stabilizes at a high level.
- Develop and implement a simple hands-on, learn-by-doing training program to launch the QI practices in the facility (page 22).

☐ **16.2.** Change ideas: What will be done? Who will do it? When will it be done? And where will it be done? (page 24)

- Identify areas in which the facility is underperforming against a key metric(s). For example, only 50 percent of HIV-exposed mother-baby pairs (0–24) are in active care (e.g., they have not missed any scheduled appointments).
    - Consult with the members of the QI team and other facility and community staff with knowledge and experience of both the challenge (e.g., missed appointments) and possible solutions.
    - Take advantage of coaching, mentoring, and knowledge exchange to diagnose and address the issues.



- Identify, outline, and agree on change ideas that will be implemented to improve performance on the problematic metric(s), including timeframes and locations where the actions will be taken.
  - Change ideas should describe specific action(s) in sufficient detail to ensure that they are clearly understood and implemented as envisioned, including who is doing what.
  - The timeframe is applicable in multiple ways, ranging from when the change idea will be implemented (e.g., for the next three months) to when the change idea is implemented in an intervention (e.g., earlier outreach by community health workers may encourage more women to keep their scheduled mother-baby appointments).
  - Location is where the change idea will be implemented, with as much specificity as possible (e.g., in the waiting area, in the exam room, or at the mother's home).

☐ **16.3.** QI journals: How and why did the change ideas work or not work? (page 25)

- Agree on a practical, uncomplicated form to track the change ideas implemented by the QI team.
- Each change idea should be tracked in a separate journal.
- Ensure that journal entries are made regularly and consistently so that the tracking information is valid and useful.
- During meetings of the QI team, review the journals to assess the implementation and effectiveness of the change idea. Use the journals as part of the decision-making process about whether a change idea should be adopted, adapted, or abandoned.
- Keep copies of the journals as references for future change ideas.

CHECKLIST #3: Sustaining the PHFS Approach

The core of the PHFS approach has two interlinked sets of activities, as outlined above: (1) The ongoing delivery of integrated services to HIV-positive mothers and their HIV-exposed babies in a mother-baby clinic, including the provision of ANC for the HIV-positive pregnant woman; and (2) the use of outreach workers to provide community-based support to mothers and babies to remain in care and assist with client tracing to reduce the number of lost-to-follow-up cases.

Although these two sets of activities are essential, sustaining them depends on having a robust and rigorous QI approach that values the perspectives and input of clients, providers, and community members. The QI approach should include the consistent application of QI tools and techniques, coaching and mentoring, knowledge exchange, and community engagement.

17. Human resources

☐ **17.1.** At least two times per year, assess the integrated staffing plan for frontline workers, including facility-based and community-based staff (that is, a plan that considers all positions together that are involved in contributing to improved client outcomes).
- Talk directly with frontline workers about the strengths and weaknesses of the staffing plan (e.g., roles and responsibilities, number of positions, caseload/workload, quality of service delivery, client outcomes, and client satisfaction) and possible ways to improve the plan.
- Consult with coaches and mentors about the strengths and weaknesses of the staffing plan and possible ways to improve it.
- Use the basic QI tools and techniques to identify ways to improve the staffing plan and related issues.
- Implement identified improvements.

☐ **17.2.** At least two times per year, assess the knowledge and skills of frontline staff and their managers.
- Consult with frontline staff (i.e., facility- and community-based workers), their managers, and the coaches/mentors to determine whether the knowledge and skills of staff and managers need to be addressed/strengthened so that they are better equipped to implement the PHFS approach.
- Use the basic QI tools and techniques to identify ways to strengthen the knowledge and skills of frontline and management staff.
- Implement improvement activities.

☐ **17.3.** At least once per year, consult with frontline staff about their job satisfaction, including workload, client interactions, knowledge and skills, coaching and mentoring, QI practices, management, and compensation.
- Consultations with frontline staff can include one-on-one interviews, group discussions, and questionnaires. It is important to confirm with staff members how they feel most comfortable sharing their views about their job satisfaction.
- Findings from these consultations should be discussed by management at the facility level and above (e.g., district, provincial, and national levels) to determine how best to address issues that limit job satisfaction and job performance.

18. QI tools and techniques

- ☐ **18.1.** Hold regular QI team meetings to review performance data and identify opportunities for improvement.
  - Regular meetings may be weekly or every other week, depending on the situation. If the gap between meetings is too long, it will be difficult to track and adjust activities.

- ☐ **18.2.** Maintain updated run charts for each performance indicator.

- ☐ **18.3.** Identify and agree on change ideas that can be implemented to improve performance in specific areas.
  - For example, to reduce loss to follow-up, peer mothers should increase their contact in the community with clients who do not come to every scheduled appointment to better understand—and to help address—the reasons why they missed appointments.

- ☐ **18.4.** Implement agreed-on change ideas according to a clearly defined plan that outlines the essential "who, what, when, and where" (e.g., who will do the implementation, what will they do, when will they do it, and where will they do it?).

- ☐ **18.5.** Use a QI journal to capture information and observations about the effectiveness of the change ideas and their contributions to addressing the root problem and improving performance against the key indicator(s).
  - Adjust/refine the change idea if the results are not satisfactory.
  - Continue tracking performance to determine whether the change idea will work.
  - If a change idea is not working after it has been given a fair opportunity to succeed, including making adjustments/refinements to it, decide whether it should be dropped in favor of a new change idea.

- ☐ **18.6.** When the performance of an indicator stabilizes at a high level for an extended period (e.g., 12 months), the QI team should continue routine monitoring of that indicator to ensure that performance does not decline, but it should identify and invest more of its time and energy in improving the performance of other indicators.

19. Coaching and mentoring

- ☐ **19.1.** Implement a practical plan to provide ongoing coaching and mentoring at the facility level for the QI practices.
  - Coaches and mentors should make regular visits to the facility to provide support, monitor implementation, and track results.
    - The cycle of visits can and should be adjusted according to need (e.g., more frequent visits when the need is high, including when a facility is starting to implement the approach). However, it is important to keep in mind that needs are likely to change. Several issues, including staff turnover, budget allocations, clinic set-up, and client demand can affect performance.
  - Coaches and mentors should also be available by phone, e-mail, and/or text to answer questions or to share expertise.
- ☐ **19.2.** Coaches and mentors should keep frontline managers (e.g., facility and district level)

informed about their work. This will help ensure that the managers understand the value of these activities and support their implementation over the long term.

☐ **19.3.** Coaches and mentors should identify straightforward and cost-effective ways to share their knowledge and experiences with each other regularly. This type of sharing can have a positive effect on the quality and utility of coaching and mentoring. It is also a useful mechanism for professional support and education.
- Opportunities for sharing include conference calls, e-mail newsletters, blogs, basic case studies, multidistrict meetings, and national meetings.
- Coaches and mentors can and should have a role in knowledge exchange initiatives implemented at the facility level (see section 20).

☐ **19.4.** The strengths and weaknesses of coaching and mentoring, including how they are implemented, should be regularly assessed to ensure that they continue to meet the needs of the frontline staff they are intended to support. These assessments (both formal and informal) should use the QI approach to identify issues and ways to address them.
- When it is done well, coaching and mentoring are valuable regardless of how long a facility has been implementing the PHFS approach.

20. Knowledge exchange

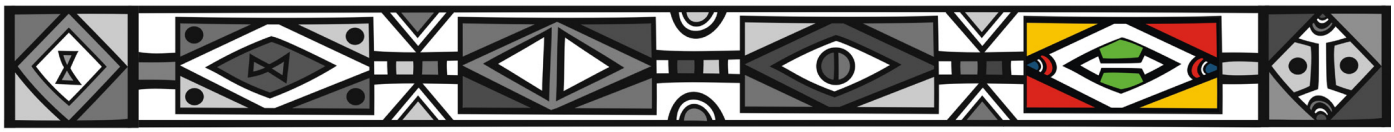
☐ **20.1.** Develop a practical and cost-effective plan for sustained knowledge exchange focused on facility-level experiences.
- The plan should include identifying an institutional "home" and a "coordinator" with primary responsibility for implementing the plan.
- Coaches and mentors can play a role in the knowledge exchange. However, the coaches and mentors should not guide this exchange. They can facilitate the exchange, but it is should be driven by inputs and discussion among frontline staff working day-to-day at the facilities or in affiliated outreach programs.
- District managers can also play a role in the knowledge exchange. However, it is important that their involvement does not limit the scope of the exchange in any way. Effective knowledge exchange is an open and free-flowing exercise in which a wide range of ideas and approaches are presented and discussed.

☐ **20.2.** Ensure that the necessary resources, including staff time and funding for activities, are allocated to support knowledge exchange.
- Securing sustained funding for knowledge exchange is likely to require a strong advocacy campaign that clearly demonstrates its value, including examples and testimonials from frontline staff, coaches, mentors, and managers.
- Despite widespread recognition that knowledge exchange was an important part of the success of the PHFS, the resources allocated for it were frequently cut or eliminated over time. Consequently, it is vital to continue to demonstrate its value with testimonies and success stories from the field.

21. Client input

☐ **21.1.** At least once per year, collect input (e.g., through interviews or questionnaires) from clients about their experiences at the mother-baby clinic.

- Correlate client input with findings from other exercises, including human resource assessments (sections 17.1, 17.2, 17.3) and observations from frontline staff, management, coaches, and mentors.
- Identify possible changes to activities and approaches based on client input and, where warranted, field test the changes to see whether they yield the intended results. If the results are positive, test and implement the changes widely.



CHECKLIST #4: Extending the PHFS Approach

"Extending the PHFS approach" specifically refers to using the underlying knowledge and skills in other departments, centers, and/or programs in health facilities that are implementing the PHFS approach in their PMTCT program. Potential opportunities to extend the PHFS approach are the operation of ART centers, with a particular focus on retention in treatment and care; noncommunicable disease programs (e.g., high blood pressure; diabetes), again with a focus on retention in treatment and care; and MCH programs, with a focus on retention in care.

The capabilities of frontline staff who are implementing the PHFS approach can and should be leveraged to improve performance and outcomes in other areas of facility operations. In addition, the basic approach (i.e., providing integrated services to clients with similar circumstances and using simple QI practices to continually improve the provision of those services) can be useful in different types of facilities, ranging from rural health centers to urban hospitals. The key is capable frontline staff who have the resources and support to implement the approach.

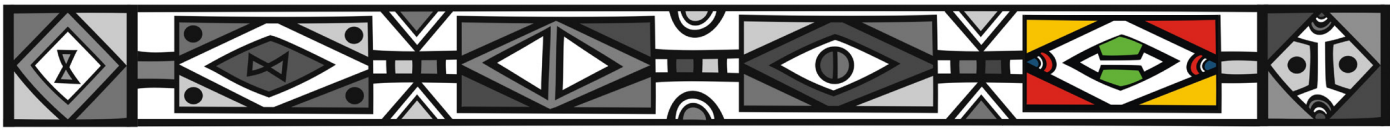
Note: Technically, the PHFS approach can also be extended by implementing it in an increasing number of sites in a given area, either national or subnational. The larger the number of participating facilities, the greater the impact on HIV-free survival among HIV-exposed infants. The overall knowledge and skill bases will also be strengthened if more facilities and health workers are implementing the different aspects of the approach.

22. Identifying and exploring new opportunities

☐ **22.1.** Identify departments, centers, and/or programs in health facilities implementing the PHFS approach where the approach could be adapted to improve performance and outcomes.
- Consult with frontline staff who are using the PHFS approach about departments, centers, and/or programs that could implement an adapted version of the approach.
- An initial assessment of these opportunities should be done at the facility level, where frontline staff have the best perspective on where and how to adapt the PHFS approach in their facility.
- Current management structures are likely to require facilities to get agreement/sign-off from a higher level (e.g., district or above).

☐ **22.2.** Discuss the opportunity to adapt the PHFS approach with managers and staff of possible departments, centers, and/or programs.

☐ **22.3.** If an agreement is reached to extend the PHFS approach to another department, center, and/or program, develop an implementation plan for who will be involved and how, including staff and managers experienced with the approach, their counterparts in the new department/center/program, and coaches/mentors.
- Although coaches and mentors will play an important role in adapting the approach, the role of experienced frontline staff is essential. Their ability to relate to their counterparts will be critical in the adaption and implementation process.
- The implementation plan should outline how experienced PHFS staff will allocate their

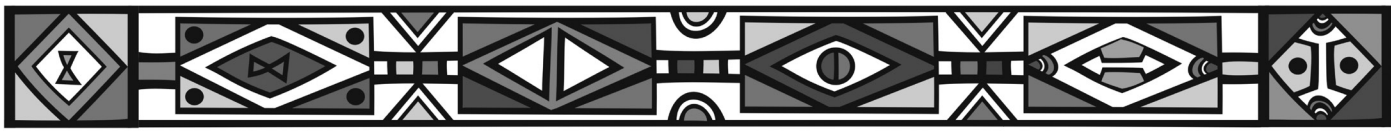


time during this process and how they will be compensated for their role.
- The plan should also outline a basic timetable for the process of sharing the requisite knowledge and skills, and supporting capacity building in the new setting.

☐ **22.4.** Organize a series of meetings between PHFS staff and their counterparts to discuss how the PHFS approach will be adapted.
- It is likely that the initial adaptations will require some trial and error to determine the most effective way forward. However, it is vital to stay true to the intent and spirit of the PHFS approach.

☐ **22.5.** Ensure that the entire adaptation process is seen as a collaborative exercise that respects the knowledge and experience of all participants.

☐ **22.6.** Once the adaptation process is under way, it is important to stay true to the steps and activities of the core PHFS approach as much as possible, including steps in this checklist under Preparing to Launch the PHFS Approach (page 41), Launching the PHFS Approach (page 48), and Sustaining the PHFS Approach (page 53).



APPENDIX A. PHFS orientation and training program

People participating in the implementation of the PHFS approach at facilities and/or in communities should attend an orientation and training program. The orientation should introduce all staff (both facility- and community-based) to the basic issues and activities that underpin the effectiveness of the PHFS approach. The training program should provide more detailed information on and instruction about the activities that implementers will undertake, depending on where they are working (i.e., facility or community).

The following table identifies the key topics that should be covered by the orientation and training program, based on where the implementers are working.

Topics	Orientation: All staff	Training: Facility-based staff	Training: Community-based staff
Service delivery			
Mother-baby pairs			
Mother-baby clinics			
Integrated services			
Quality improvement practices			
Facility-level use of QI tools and techniques			
Coaching and mentoring			
Knowledge exchange			
Oversight and management			
Facility-level implementation plan/protocol			
Performance indicators			
Community involvement			
Role of community health workers			
Role of peer mothers			

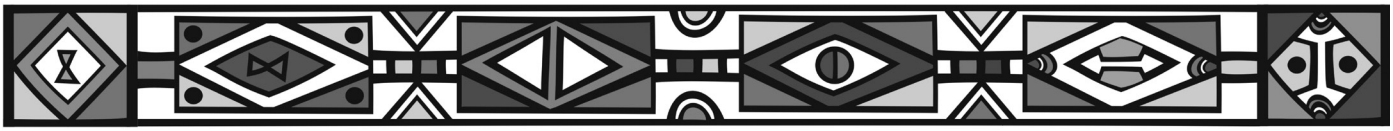
The key issues/activities to be addressed in each of the topic areas are:

Service delivery
- Mother-baby pairs (page 12)
- Mother-baby clinics (page 14)
- Integrated services (page 16)

Quality improvement practices
- Facility-level use of QI tools and techniques (page 22)
- Coaching and mentoring (page 26)
- Knowledge exchange (page 28)

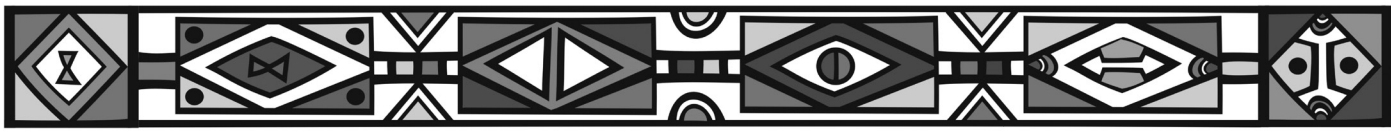
Oversight
- Facility-level implementation plan/protocol
- Performance indicators (page 34)

Community involvement
- Role of community health workers (page 30)
- Role of peer mothers (page 30)



APPENDIX B. Possible PHFS data points and indicators

- Number of pregnant women with HIV status known before their first ANC visit
- Number of pregnant women who were counseled, tested, and given results at their first ANC visit
- Number of ANC first visits
- Number/percentage of pregnant women with known HIV status, including women who were tested and received their results
- Number/percentage of pregnant women who were counseled, tested, and given their test results
- Number of mothers retested later in pregnancy, labor, or postpartum
- Percentage of HIV-positive mothers initiated on ART
  - Number of HIV-positive mothers initiated on ART at the first ANC visit
  - Number of HIV-positive mothers identified who are not yet on ART (includes those counseled, tested, and given their results)
- Percentage of HIV-exposed infants tested for HIV at six weeks (1st PCR)
  - Number of HIV-exposed infants tested for HIV at six weeks of age (1st PCR)
  - Number of HIV-exposed infants identified in the reporting period
- Percentage of exposed infants whose DNA PCR results were given to the caregiver: 1st PCR and 2nd PCR
  - Number of HIV-exposed infants whose DNA PCR results were given to the caregiver: 1st PCR and 2nd PCR
  - Number of exposed infants tested for HIV: 1st PCR and 2nd PCR
- Percentage of HIV-exposed babies given ARV prophylaxis
  - Number of HIV-exposed babies born to HIV-positive mothers given ARV prophylaxis
  - Number of HIV-exposed babies born in the facility during the reporting period (live births)
- Percentage of HIV-positive mothers who receive infant and young child feeding (IYCF) counseling at each visit
  - Number of HIV-positive pregnant and lactating mothers given IYCF counseling at each visit
  - Number of HIV-positive pregnant and lactating mothers attending in the reporting period
- Percentage of HIV-positive pregnant and lactating women who receive maternal nutrition counseling
  - Number of HIV-positive pregnant and lactating women given maternal nutrition counseling at each visit
  - Number of HIV-positive pregnant and lactating women attending in the reporting period



- Percentage of HIV-positive mothers initiating breastfeeding within one hour after birth
  - Number of HIV-positive mothers initiating breastfeeding within one hour after birth
  - Number of HIV-positive positive deliveries (live births only)

- Percentage of HIV-positive mothers reporting adherence to recommended IYCF practices
  - Number of HIV-positive mothers reporting adherence to recommended IYCF practices
  - Number of mother-baby pairs attending the care point in the given month (including reattendance)

- Percentage of HIV-positive pregnant and lactating women who have a nutrition assessment at each visit
  - Number of HIV-positive pregnant and lactating women who have a nutrition assessment at each visit
  - Number of HIV-positive pregnant and lactating women seen in a month

- Percentage of HIV-exposed infants who receive a nutrition assessment
  - Number of HIV-exposed infants who had a nutrition assessment
  - Number of HIV-exposed infants who were seen at the mother-baby care point

- Percentage of HIV-positive pregnant and lactating women who are undernourished
  - Number of HIV-positive pregnant and lactating women who are undernourished
  - Number of HIV-positive pregnant and lactating women active in care

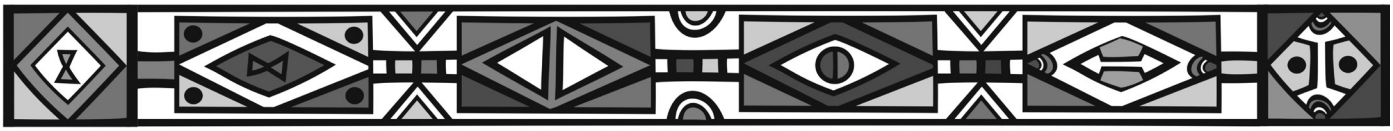
- Percentage of undernourished HIV-exposed infants on therapeutic or supplemental feeding
  - Number of undernourished HIV-exposed infants on therapeutic or supplemental feeding
  - Number of undernourished HIV-exposed infants who are eligible for therapeutic or supplemental feeding

- Percentage of undernourished HIV-positive mothers on therapeutic or supplemental feeding at any point during the reporting period
  - Number of undernourished HIV-positive mothers on therapeutic or supplemental feeding at any point during the reporting period
  - Number of undernourished HIV-positive mothers who are eligible for therapeutic or supplemental feeding

- Percentage of HIV-exposed infants with acute malnutrition at the 18-month follow-up visit
  - Number of HIV-exposed infants with acute malnutrition at the 18-month follow-up visit
  - Number of HIV-exposed infants having a nutrition assessment at the 18-month follow-up visit

- Percentage of HIV-positive infants who are undernourished: 0–6 months and 6–12 months
  - Number of HIV-positive infants who are undernourished: 0–6 months and 6–12 months
  - Number of HIV-positive infants active in care: 0–6 months and 6–12 months

- Percentage of HIV-exposed infants in the PMTCT program who are HIV-positive at 18/24 months
  - Number of HIV-exposed infants in the PMTCT program who are HIV-positive at 18/24 months
  - Number of HIV-exposed infants in the PMTCT program who have an HIV test at 18/24 months

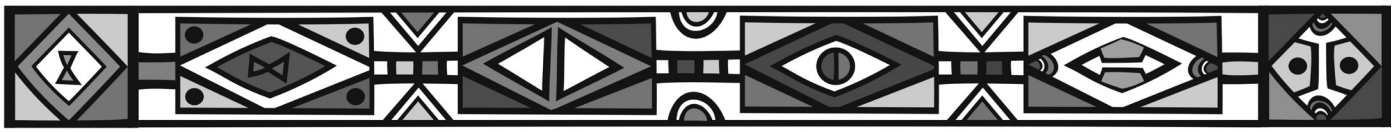


- Percentage of patient charts for HIV-exposed infants that are completely and accurately filled
  - Number of patient charts for HIV-exposed infants that are completely and accurately filled
  - Number of patient charts for HIV-exposed infants who were seen in the reporting period

- Percentage of mother-baby pairs retained in care during the reporting period
  - Number of mother-baby pairs retained in care during the reporting period
  - Number of mother-baby pairs who should be in care during the reporting period

- Percentage of mother-baby pairs who received a standard care package during the reporting period
  - Number of mother-baby pairs who received a standard care package during the reporting period
  - Number of mother-baby pairs seen during the reporting period

- Percentage of HIV-exposed infants who had a rapid test at 18/24 months
  - Number of HIV-exposed infants who had a rapid test at 18/24 months
  - Number of HIV-exposed infants enrolled in care at 18/24 months

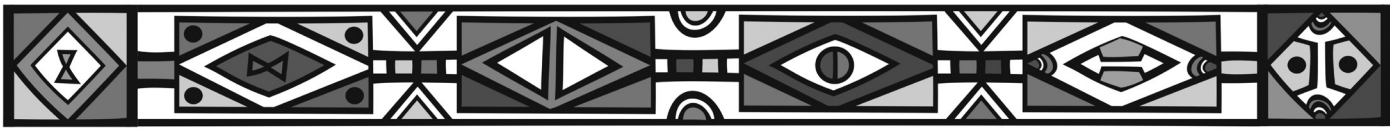


APPENDIX C. Search terms

The purpose of this appendix is to provide several useful search terms so that the user can find additional information about the issues presented in this document. Given ongoing advances and regular updates on these issues, users are advised to consider current and contextually appropriate information that is applicable to their situation. In most cases, adding HIV to the core search term may yield additional results. For example, the compound query—"mother-baby pairs" HIV—will identify other results than simply searching for "mother-baby pairs." There are also opportunities to combine different search terms in a compound search; for example, combining "mother-baby pairs," "growth monitoring," and HIV. Similarly, advanced search features with some search engines can yield more focused results.

Service Delivery		
Mother-baby pairs	Integration of services	Retention
mother-baby pairs mother-baby care mother-baby care points HIV-exposed infants	integrated services PMTCT nutrition maternal, newborn, and child health growth monitoring immunizations HIV testing ART counseling	retention retention in care retention on treatment loss to follow-up

Quality Improvement		
QI methodology	QI in healthcare	QI in HIV/PMTCT facilities
continuous quality improvement quality improvement healthcare system PDSA performance measurement performance indicators QI teams change ideas QI journals run chart	continuous quality improvement quality improvement healthcare client-centered	quality improvement PMTCT
QI coaching & mentoring	Learning platforms	
quality improvement coach coaching mentor mentoring QI teams supportive supervision	knowledge exchange site visits learning collaborative information sharing networking	



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