



## AIDSFree Technical Brief

# ENGAGING PRIVATE HEALTH PROVIDERS TO EXTEND THE GLOBAL AVAILABILITY OF PMTCT SERVICES

By James J. White, Sean Callahan,  
Samantha Lint, Helen Li,  
and Aida Yemaneberhan

### **AIDSFree**

JSI Research & Training Institute, Inc.  
1616 Ft. Myer Drive, 16th Floor  
Arlington, VA 22209 USA  
Tel.: +1 703-528-7474  
Fax: +1 703-528-7480  
Email: [info@aids-free.org](mailto:info@aids-free.org)  
Web: [aidsfree.usaid.gov](http://aidsfree.usaid.gov)



SEPTEMBER 2016



## **Recommended Citation**

White, James J., Sean Callahan, Samantha Lint, Helen Li, and Aida Yemaneberhan. 2016. *Engaging Private Health Providers to Extend the Global Availability of PMTCT Services*. Arlington, VA: Strengthening High Impact Interventions for an AIDSfree Generation (AIDSFree) Project.

## **Acknowledgments**

Special appreciation goes to Nida Parks, Ryan Phelps, Ugochukwu (Ugo) Amanyeiwe, Meena Srivastava, Josef Tayag, David Sullivan, and Alexandra Vrazo, of USAID's Office of HIV/AIDS, for their insight, support, and comments. Thanks to Helen Cornman, Samson Kironde, Jennifer Macias, Theresa Wolters, and Stephen Lee for reviewing the document and providing valuable comments, as well as Abt Associates Inc.'s private sector engagement technical advisors for their important contributions.



## ACRONYMS

AFA	Aid for AIDS, South Africa
AIDSTAR-One	AIDS Support and Technical Assistance Resources, Task Order 1
AMPATH	Academic Model Providing Access to Healthcare, Kenya
ANC	antenatal care
ART	antiretroviral therapy
ARV	antiretroviral
CAG	Community ART Group
CBO	community-based organization
CCC	community care coordinator
CCC	Comprehensive Care Centre, Kenya
CDMP	AFA Clinical Disease Management Programme
CHW	community health worker
CSO	civil society organization
CSR	corporate social responsibility
DOH	department of health
DPS	Direcção Provincial de Saúde, Tete Province, Mozambique
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EID	early infant diagnosis
eMTCT	elimination of mother-to-child HIV transmission
GP	general practitioner
HCW	health care worker
HEART	Help Expand Antiretroviral Treatment Program, South Africa
HTS	HIV testing services
IT	information technology
KMET	Kisumu Medical and Education Trust, Kenya
M2M	mothers2mothers International



MBCA	Malawi Business Coalition against AIDS
MOH	Ministry of Health
MSF	<i>Médecins Sans Frontières</i> (Doctors Without Borders)
NGO	nongovernmental organization
NHIF	National Health Insurance Fund
PCR	polymerase chain reaction
PDA	personal digital assistant
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PMTCT	prevention of mother-to-child HIV transmission
PPP	public-private partnership
PRINMAT	Private Nurses and Midwives Association of Tanzania
QA	quality assurance
QI	quality improvement
RMNCH	reproductive, maternal, newborn, and child health
RTCHS	Right to Care Health Services, South Africa
SAATHI	Solidarity and Action Against the HIV Infection in India
SHOPS	Strengthening Health Outcomes through the Private Sector [Project], USAID
TBA	traditional birth attendant
THETA	Traditional and Modern Health Practitioners Together Against AIDS, Uganda
UNAIDS	Joint United Nations Programme on HIV/AIDS
VHT	village health team
WHO	World Health Organization



## ABSTRACT

Global efforts to extend the availability of prevention of mother-to-child HIV transmission (PMTCT) services have dramatically reduced the number of babies born HIV-positive. However, new HIV infections among pregnant women, newborns, and infants remain unacceptably high, with mother-to-child transmission (MTCT) persisting as the most common route of new pediatric infections globally (UNAIDS 2011; AVERT 2014). To eliminate MTCT, HIV programs are increasingly seeking ways to engage private actors more fully in expanding and sustaining national HIV and PMTCT responses. Building on technical guidance outlined by the U.S. Agency for International Development (USAID), AIDS Support and Technical Assistance Resources, Task Order 1 (AIDSTAR-One) Project, and the USAID Strengthening Health Outcomes through the Private Sector (SHOPS) Project, this technical brief presents a spectrum of private sector engagement options to increase the supply of PMTCT services that vary in degree of public-private collaboration, source of financing, and source of logistic, commodity, and diagnostic inputs. This brief explores private models of financing and delivering care, as well as public-private partnerships (PPPs) and joint ventures. It also presents a range of community-level interventions led by private actors, demonstrating how the private sector can contribute to demand creation, PMTCT and antiretroviral therapy (ART) delivery, and adherence and retention activities. The discussion includes successes, lessons, and challenges that can inform the efforts of governments, donors, and implementers to adapt or replicate private sector models in new settings.

Effective engagement of private actors is critical to reaching global elimination of mother-to-child HIV transmission (eMTCT) targets and achieving an AIDS-free generation. This brief seeks to present governments and implementers with actionable options in that pursuit.



## THE GLOBAL PMTCT CONTEXT: IMPRESSIVE SUCCESSES AND STAGNATING PROGRESS

The past decade has seen tremendous progress in making services to prevent mother-to-child transmission of HIV (PMTCT) services more available in many HIV high-prevalence settings. The number of babies born HIV-positive declined by 58 percent between 2000 and 2014, from 520,000 to 220,000 (World Health Organization [WHO] 2015b). The number of HIV-positive pregnant women who were offered lifelong antiretroviral therapy (ART) during pregnancy more than doubled between 2009 and 2013, from 30 percent to nearly 70 percent (UNAIDS 2014a). These global efforts were advanced by the ambitious targets outlined in the *Global Plan towards the Elimination of New HIV Infections among Children by 2015 and Keeping their Mothers Alive* (referred to hereafter as the Global Plan), a bold initiative launched in 2011 by the Joint United Nations Programme for HIV/AIDS (UNAIDS), the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and other Global Elimination of Mother-to-Child-Transmission (eMTCT) Task Team collaborators. The Global Plan targets called for reducing mother-to-child transmission (MTCT) by 90 percent and AIDS-related maternal mortality by half in 21 priority countries between 2009 and 2015 (UNAIDS 2011). In 2015, the World Health Organization (WHO) released new guidance (termed "Option B+") that recommends immediate initiation of lifelong ART for HIV-positive pregnant women at the time of diagnosis, irrespective of CD4 cell count. This recommendation has increased optimism around global efforts to achieve eMTCT (WHO 2015a).

Despite this progress, new HIV infections among pregnant women, newborns, and infants remain unacceptably high, and AIDS remains one of the leading causes of death among women of reproductive age and infants worldwide. Among the 21 Global Plan priority countries, an estimated 220,000 new infections occurred among children under age 15 during 2014 alone—with MTCT remaining the most common route of new pediatric infections (WHO 2015b; AVERT 2014). In addition, 40 percent of HIV-positive breastfeeding mothers are still not receiving ART, and reductions in new HIV infections among newborns have slowed or stalled in several Global Plan priority countries (UNAIDS 2014b).

Effective PMTCT interventions can reduce the risk of MTCT to less than 5 percent, and can also provide an important gateway to family-focused HIV prevention, care, and treatment services (WHO 2015a). Many high-HIV-burden countries face substantial operational and programmatic challenges in extending PMTCT services through the public sector alone. These include fragile health systems, human resource shortages, and limited financial and operational capacities (WHO 2013). Achieving an AIDS-free generation therefore requires innovative strategies to promote multisectoral partnerships that effectively leverage the talents, capacity, and resources of nonstate actors (PEPFAR 2014). Data also show that private- and public-sector providers tend to offer HIV testing services (HTS) as part of antenatal care (ANC) at similar rates (Johnson and Cheng 2014). Thus, the engagement and mobilization of private health providers is increasingly recognized as a potentially powerful way to rapidly extend the availability of PMTCT services and reach global eMTCT targets.



Building on technical guidance outlined by USAID's AIDS Support and Technical Assistance Resources, Task Order 1 (AIDSTAR-One) and Strengthening Health Outcomes through the Private Sector (SHOPS) Projects (Sargent et al. 2009; Smith 2010; Stevenson and Ron Levey 2014; Tayag, White, and Mijares 2014; SHOPS 2014a), this technical brief presents options for engaging private sector actors in rapidly extending the availability of PMTCT services. The brief includes interventions that cover the full range of private actors (i.e., the commercial "for-profit" sector, nonprofit and faith-based organizations, and civil society or community-based organizations). The brief presents a spectrum of activities to increase the supply of PMTCT services in the private sector; these vary in their degree of public-private collaboration, source of financing, and source of logistic, commodity, and diagnostic inputs. The brief also presents a range of community-engagement interventions led by private actors, demonstrating their contributions to PMTCT demand creation, ART and PMTCT delivery, and adherence and retention activities.



## GLOBAL PMTCT CHALLENGES AND PRIVATE SECTOR OPPORTUNITIES

Despite tremendous progress in extending the global availability and uptake of PMTCT services among HIV-positive or at-risk pregnant women, persistent challenges continue to stall progress toward eMTCT in many settings.

### **Challenge 1: More efficacious PMTCT protocols add to existing programmatic challenges in reaching population-level coverage of PMTCT services.**

WHO's PMTCT Option B+ protocol immediately and significantly increased the number of HIV-positive women eligible to receive ART services worldwide. Though this new protocol was welcomed as a strategy for earlier initiation of lifesaving ART, it introduced significant programmatic challenges—such as increased patient volume, insufficient commodity supplies, and inadequate financing. This added to longstanding issues that range from geographic and socioeconomic access barriers for patients, to lack of integrated services, to broken supply chains, inadequate laboratory capacity, and other health system weaknesses. There remains “a substantial gap between clinical trial efficacy and ‘real world’ program effectiveness,” with patients dropping out of care at every point along the ANC and PMTCT cascade (Chi et al. 2012, S82). National PMTCT programs, many already struggling to meet population needs for PMTCT protocols that were less efficacious, have now been challenged to extend service coverage substantially within constrained health systems and national health budgets. Engaging the private sector can tap into a wealth of resources to complement the public sector's activities.

### **Challenge 2: The global shortage of human resources for health is severely restricting adequate provision of PMTCT services (WHO 2014).**

WHO has identified the global shortage of qualified health care workers as one of the greatest impediments to achieving health and development goals worldwide (WHO 2015c). In many countries, a lack of qualified health providers severely restricts service provision and puts significant demands on overwhelmed health care workers. While educating, deploying, and retaining new health care workers is essential to solving the crisis, identifying and mobilizing existing human resources not previously engaged in HIV responses—especially those in the private health sector—could be pivotal.

### **Challenge 3: Many HIV-positive pregnant women do not seek HTS, ANC, or PMTCT services from formal health institutions.**

Another critical obstacle to expanding PMTCT services in resource-poor settings is reaching the many pregnant women who are missed by facility-based HIV and PMTCT interventions (Chi et al. 2012). Extending PMTCT to community-based points of care, mobilizing community health workers (CHWs), and integrating PMTCT into home-based ANC and traditional birth attendant (TBA) services have all been proposed as possible strategies for reaching women who choose not to attend facility services. Many of these types of actors operate outside the public sector, which emphasizes the need for increased private-sector engagement.

**There are significant opportunities for private providers to help address these challenges.**



As outlined on the previous page, strategic involvement of private health stakeholders could be transformative in addressing individual and health system barriers. To fulfill this potential, donors and governments must understand the needs and incentives that will motivate private actors to increase and sustain their engagement in delivering HIV services. Benefits to private providers include access to training, commodities, and capital financing resources; an increased client base via delivery of free or subsidized PMTCT services to clients who may be willing to pay for other services out of pocket; and opportunities to engage in national public health campaigns at a reduced cost via partnership with the government. The next sections of this technical brief outline approaches that have effectively incorporated these benefits and motivations into program design to effectively mobilize private capacity toward addressing PMTCT challenges.

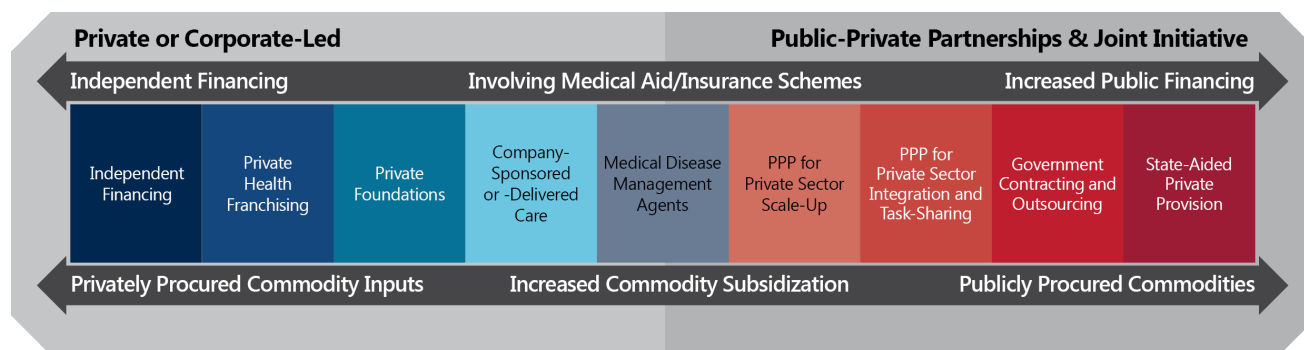
## PROGRAMMATIC APPROACHES FOR ENGAGING PRIVATE ACTORS IN NATIONAL PMTCT PROGRAMS

This brief presents a spectrum of implementation experiences focused on both increasing the facility-based supply of private PMTCT services (*Section 1*) and increasing demand for, access to, and retention in PMTCT services via community engagement activities (*Section 2*). A comprehensive PMTCT strategy should contain both facility- and community-based components to ensure that private-sector PMTCT activities effectively reach HIV-positive women and their infants, initiate them in care, and retain them throughout successful completion of the PMTCT cascade. This brief draws from the global experiences (presented in 13 case studies) to provide programmatic guidance and lessons learned from private-sector PMTCT service implementation—with the goal of promoting more effective multisectoral collaboration in advancing and sustaining global eMTCT activities to achieve an AIDS-free generation.

### Section 1: Facility-Based, Supply-Side, Private Sector Engagement Options

This section presents a spectrum of approaches that have been applied to engage private actors in strengthening and expanding PMTCT services. As depicted in Figure 1, they range from independently financed and privately led projects to public-private partnerships (PPPs) and more robust forms of public-sector involvement. The sequence of the models presented parallels a shift from privately procured pharmaceutical and diagnostic inputs to those that are increasingly donor/government-subsidized or publicly provided as public involvement grows.

**Figure 1. Spectrum of Facility-Based, Supply-Side, Private-Sector Engagement Options for PMTCT**





## Independent Provision and Financing

The delivery of PMTCT services that are financed and delivered purely through private actors has been limited by three factors:

1. Independent private commercial providers rely on a fee-for-service model driven by out-of-pocket payments from patients or reimbursement from insurance schemes, which limits their potential patient volumes in resource-poor settings.
2. PMTCT commodities such as HIV test kits and antiretrovirals (ARVs) are typically considered government-controlled commodities, which often keeps private providers from independently importing or procuring them.
3. Even where PMTCT commodities can be privately imported, HIV-positive pregnant women and HIV-exposed infants are typically considered priority populations that are exempted from paying for priority health services such as PMTCT.

As several private health sector assessments conducted by USAID's SHOPS Project demonstrated, where private commercial providers are independently delivering PMTCT services, they often do so free of charge as part of their social commitment, to expand their clinical knowledge, to expand the number of patients who might pay for other acute services, or to improve their relationship with the government (Barnes et al. 2009; Ron Levey et al. 2011; White, Arur, Talib, and Stene 2014). Thus, depending on national PMTCT legislation and commodity access restrictions, the private commercial sector can rarely introduce PMTCT services without at least some government involvement. Government and donor initiatives are increasingly seeking to identify and partner with independent private PMTCT service providers to improve private-sector reporting processes, enhance public-private referral mechanisms, or develop multisectoral forums to discuss commodity access and other priorities specific to the private sector.

Private-sector coalitions and umbrella bodies have become increasingly powerful platforms for formalizing private commercial PMTCT activities, connecting these activities to government, and providing quality assurance, quality improvement, and clinical mentorship to independent providers. Because many governments lack the financial resources to identify, link with, and regulate independent private providers, such coalitions can serve as a single point of public-private contact to ensure—at a minimum—private-sector adherence to national PMTCT protocols; establish reporting relationships; and ensure that private PMTCT providers are represented in national planning and regulatory discussions. Box 1 presents an example of a coalition to ensure private-sector PMTCT linkages and compliance with national requirements.



## Box One

### The Malawi Business Coalition against AIDS: Building the Capacity of Independent Private Providers to Deliver PMTCT and ART

Launched in 2003, the Malawi Business Coalition against AIDS (MBCA) is a group of private health care providers and companies that came together with a mandate to address Malawi's HIV epidemic. MBCA provides a number of services to its members, including strengthening management and clinical capacity to deliver public health services; providing training and support for service monitoring and reporting to the government; and serving as a private-sector representative and advocate at national HIV forums (Chikopa 2006). Given MBCA's strong early work on identifying and organizing multiple private commercial entities, in 2005 Malawi's government formally engaged MBCA to coordinate the government's scale-up of ART in the private sector. Under the Malawi private sector ART program, MBCA assesses, trains, supervises, and formally links independent and company-employed private practitioners to the national HIV response (MBCA 2014). MBCA advocates for private commercial facilities to access government-controlled PMTCT and ART commodities, allowing the private providers to deliver a full suite of HIV interventions free of charge in exchange for government commodity inputs. Between 2005 and 2013, the number of MBCA-accredited private facilities increased from 23 to 70. In 2013 alone, MBCA-supported facilities delivered ART to more than 25,000 people living with HIV (PLHIV), including 1,523 pregnant women and 356 children under age two (MBCA 2014).

Based on the success of MBCA's private-sector engagement activities, the government has further used MBCA to accredit private providers as it formally rolls out new PMTCT B+ protocols. This support has helped Malawi to more than double its coverage of pregnant women receiving lifelong ART for PMTCT (from 23% in 2010 to 68% in 2014). Given that the government provides MBCA-affiliated clinicians with PMTCT commodity inputs, the public-private mechanism used by MBCA is better described as a public-private partnership, or PPP, rather than a purely independent private provider of PMTCT.

**Lessons Learned:** *Private coalitions or umbrella bodies can work to harmonize the activities of numerous independent providers, helping them introduce PMTCT services that they otherwise might not have been able to pursue. The MBCA also plays a critical role in supervision and quality improvement on behalf of the government, which ensures that private providers are supported and regulated within the larger health system. Such efforts are critical to formalizing PMTCT provision among private providers, linking them to national PMTCT and ART activities, and expanding PMTCT services to additional points of care via the private health sector.*

## Private Health Franchising

Franchising is another proven method of formalizing and organizing independent private health providers (see Box 2). A *health franchise* operates as a network of private providers linked to each other and to a network manager under a common franchise brand, e.g., Social Franchising for Health (S4H 2014). The *franchisor*—a for-profit or nonprofit firm—manages the brand and provides logistic, administrative, and representational support to the various *franchisee* providers, typically in exchange for a nominal one-time or annual franchising fee. Franchisees benefit from use of the easily recognized brand and access to subsidized or reduced-cost commodities purchased in volume by the franchisor. Different franchise models typically share the following characteristics: (1) franchisees remain independent and retain ownership of their practice while affiliated with the franchise, (2) franchises operate within for-profit or cost-recovery financial models that rely on fee-for-service, and (3) franchised facilities adhere to similar standards and protocols, ideally consistent with government regulations.



## Box Two

### **The Huduma Poa Health Network in Western Kenya: A Health Network Franchising Approach to Linking Women to PMTCT Services**

To scale up private providers' roles in addressing HIV and other priority health issues, the Kisumu Medical and Education Trust (KMET) created the Huduma Poa network in 2013. Networked private facilities offer an integrated package of family health interventions, including HTS and PMTCT. Franchisor KMET receives significant financial support from Population Services Kenya, which also facilitates KMET's connections to the Kenya Ministry of Health (MOH), Kenya's Gold Star Network, and PharmAccess for access to PMTCT commodities, provider training, and ongoing quality improvement interventions. Services at franchised facilities are covered by fees, increasing their financial sustainability. The Huduma Poa network also uses community health workers and demand creation officers to raise community awareness of the services offered at franchised facilities and to link patients to care within the network. Biannual performance review forums provide a platform for the MOH, franchisees, and community health workers to share experiences, successes, challenges, and possible solutions to barriers to delivery of care for HIV and other priority health issues.

Huduma Poa is a strong example of engaging private practitioners to deliver integrated health services. The franchise has successfully introduced and scaled up a wide range of family planning, child health, and HIV services. At the same time the network's facilities have faced barriers to introducing the full range of services across the PMTCT cascade. For example, facilities cannot provide ARVs unless they have at least two PMTCT-trained staff, a laboratory that can process CD4 and other HIV-related serology, and formal recognition by the MOH and the Kenya National AIDS and STI Control Programme. Yet private providers often cannot access the required PMTCT certification trainings. Huduma Poa providers also report challenges in using publicly procured PMTCT commodities, such as increased reporting requirements, limits on their ability to recover the full costs of the service, and irregular availability of supplies. Huduma Poa outlets that cannot provide ART refer pregnant women who test HIV-positive to either a nearby public facility or a franchise outlet that offers the full range of services. Within the network, outlets have established a referral process to follow up on these types of cases. Given that the network has successfully increased the number of clients receiving HTS by over 53 percent in its first two years of operating, this approach represents a successful first step in identifying and linking eligible pregnant women to PMTCT care.

**Lessons Learned:** *Private health facilities, especially those with strong links to the community, can be effective partners in identifying patients in need of PMTCT and linking them to care. With additional support and targeted interventions to overcome logistic barriers, these facilities could also increase PMTCT service delivery themselves. To seize such opportunities, franchisors and other health system stakeholders must ensure that private franchisees have an incentive to deliver these services; providers can access training programs and other certification requirements; and PMTCT commodities are consistently available.*



## Private Foundations and Philanthropic Organizations

As national HIV programs have matured and economies in high-HIV-prevalence countries have grown, interest has increased in how private entities can help mobilize additional domestic resources to grow and sustain the HIV response in the long term. Private philanthropic foundations could play a stronger role in funding and scaling up private provision of PMTCT services. Private foundations are considered *private* because they receive funding from one or very few donors (typically an individual, family, or business), which is then dispensed at voluntary discretion to activity implementers. Foundations can be considered both *non-operating*, that is, they carry out activities through grant-making to smaller organizations, or *operational*, in which case they choose which health or social welfare activities (such as PMTCT) they will fund and operate directly. One such example is the Gertrude's Hospital Foundation in Kenya, described in Box 3.

### Box Three

#### **Gertrude's Hospital Foundation in Kenya: Mobilizing Private Donations to Enhance Private Sector PMTCT Service Delivery**

Gertrude's Children's Hospital—based in Muthaig, Nairobi with outpatient satellite clinics in other areas of Nairobi City and Mombasa—is one of the few pediatric-focused hospitals in East and Central Africa. Established in 1947 and registered as a private enterprise in Kenya, the hospital offers both primary and specialized health services to more than 300,000 pediatric outpatients and 5,000 inpatients annually. In 2010 the board of trustees established the Gertrude's Hospital Foundation to advance charitable projects and promote community access to child health services (Gertrude's Hospital Foundation 2015a). In 2012, as part of expanding the hospital's service package and advancing the foundation's mission, Gertrude's Hospital and several of its affiliated satellite centers introduced PMTCT at the Comprehensive Care Centre Sunshine Clinic, which had been providing pediatric-focused HIV and ART services.

The foundation reports that tailored daily health talks and monthly PMTCT support groups targeting HIV-positive mothers and women of childbearing age were keys to the program's success. The foundation also supports a *peer-to-peer PMTCT champions program* in which HIV-positive women, who have successfully completed the PMTCT program, mentor other HIV-positive women to help them enter and complete the PMTCT cascade. Male partner involvement, and outreach to HIV-positive men of reproductive age, were also reported as strong factors in the program's success (Gertrude's Hospital Foundation 2015b).

In addition to outpatient services, the foundation's PMTCT approach entails a strong, integrated community outreach program involving community health workers and TBAs, who supply condoms and other prevention commodities, perform door-to-door HTS, and refer pregnant women (in particular those who are HIV-positive) to facilities for hospital-based delivery. Overall, as a result of launching the PMTCT program at the Sunshine Clinic and integrating HTS into other existing Gertrude's Hospital services, the PMTCT program reports successful early initiation of mothers on lifelong ART, a reduction in maternal and infant morbidity and mortality, and reduction of MTCT of HIV (Gertrude's Hospital Foundation 2015b).



### Box Three (cont.)

The foundation's model provides a strong example of how privately-funded PMTCT programs can reduce reliance on international donor funding and increase discretionary sources of financing to promote equitable access to care among poor and disenfranchised patients. However, the available funding is often insufficient to activities beyond the core PMTCT interventions, especially at the community level.

**Lessons Learned:** *While private-sector foundation models can protect PMTCT programs during periods of declining or interrupted donor funding, the challenge of sustainably financing comprehensive and integrated facility-based and community-level support models necessary to promote retention remains a significant challenge in both the public and private sectors.*

### Company-Sponsored or -Delivered Services

Ensuring productivity and profitability is of central importance to private companies. Many companies have historically implemented corporate social responsibility (CSR) programs to achieve a balance of economic, environmental, and social imperatives. This process has evolved to address HIV and other health issues that cost companies in terms of employee absenteeism, decreased productivity due to employee illness, and led to loss of staff skills and institutional memory. In high-HIV-prevalence settings, CSR is an increasingly important component of core business strategies, entailing short-term investments in employee health that contribute to long-term financial and organizational gains through increased employee retention and productivity. CSR HIV programs have included direct provision of HTS, PMTCT, and ART services in the workplace. Many companies are exploring models to either directly provide or sponsor external provision of PMTCT and ART services. One such model is the Mopani Copper Mines Program in Zambia, explored in Box 4 on the following page.



## Box Four

### **The Mopani Copper Mines Program in Zambia: Company-Delivered PMTCT in Copperbelt Communities**

In 2003, recognizing the negative impact of HIV and ill health on their workforce and corporate interests, Mopani Copper Mines PLC—a Zambian joint venture mining company—began operating two hospitals, seven satellite clinics, and five first aid outposts in Kitwe and Mufulira towns in the Copperbelt Province. This initiative was launched to address the health needs of Mopani employees, their dependents, and the surrounding communities. Mopani investments in health services (in partnership with the MOH, the National Comprehensive HIV/AIDS Management Programme, and Catholic Relief Services) allowed the target populations to access HIV services, including PMTCT and ART, at no cost.

The company's efforts have greatly increased the number of women accessing PMTCT services. Since 2013, 100 percent of pregnant women in local communities have received HTS—up from 41 percent in 2005 (GBC Health 2013). Mopani reports that the use of trained peer educators as community-based extensions from the facilities, engagement of civil society partners, and use of home-based retention and palliative care approaches were essential in building demand for HTS and linking pregnant HIV-positive women to Mopani-funded care. As a result, the number of pregnant women identified as HIV-positive and receiving a PMTCT intervention nearly doubled between 2009 and 2011 (Mavuso 2012). By 2015 Mopani reported that 100 percent of HIV-positive pregnant women were initiated on lifelong ART (personal communication; Cheelo 2016). Mopani-provided PMTCT interventions have contributed to a substantial reduction in the two communities' MTCT rate—from 37 percent in 2005 to 0 percent in 2013—a rate that remained constant through 2015 (GBC Health 2013; Cheelo 2016). At the same time, the program reports that constrained budgets, human resource shortages, and transport barriers continue to pose challenges. Even so, the program's success demonstrates the capacity of private companies to rapidly scale up PMTCT services and reduce MTCT among their female workforce.

**Lessons Learned:** *As in the case of NAMDEB (Namibia-De Beers) Diamond Corporation mining in Namibia, Mopani's financing and operational model demonstrates the rapid and substantial impact that private companies can have in scaling up and extending the availability of PMTCT services among employees, their dependents, and the communities where the companies operate. Incentives for corporate involvement in PMTCT and other HIV services go beyond the benefits of CSR initiatives to include financial and other corporate returns as part of sound core business strategies.*



## Medical Disease Management Agents

Companies may choose to outsource the provision of PMTCT and ART services to external private health providers. Under such models, the costs of services are typically covered by medical aid schemes managed and funded internally by the company, or by private insurance schemes purchased for or by employees externally. In addition, companies may choose to seek out the services of a disease management firm to assist them in establishing an HIV program at the workplace, to develop outsourcing relationships, or to manage insurance and medical-aid processes as part of employer-sponsored HIV services. One such model is Aid for AIDS (AFA) in South Africa, discussed in Box 5.

### Box Five

#### **Aid for AIDS in South Africa: Supporting Companies and Corporate Entities to Implement or Finance PMTCT Programs**

Aid for AIDS (AFA), the oldest and largest South African disease management firm, was launched in 1998 with the goal of offering corporate clients an integrated approach to HIV disease management (AFA 2010). AFA uses its information technology (IT) system on behalf of private businesses, to monitor and coordinate care between employed PLHIV with medical aid coverage and their doctors, pathology labs, and pharmacies. In addition to post-exposure prophylaxis and full ART care, PMTCT services are delivered to employees via the AFA Clinical Disease Management Programme (CDMP). This program is available to insured members of medical aid schemes (the largest group); employees without medical aid coverage who are enrolled and financially covered by their employers (a smaller group due to more affordable, low-cost medical aid scheme products); and approximately 1,500 employees under a PPP managed by BroadReach Healthcare. The CDMP consists of five core components:

1. Patients see their own doctor, with AFA providing comprehensive case management and pharmaceutical review and advising ART-providing physicians on potential complications or drug interactions.
2. AFA uses a proprietary online data management system that provides an interface for systematic monitoring of patients' chronic care, medication regime, and potential problems with adherence or treatment failure.
3. AFA monitors health status via the interface and communicates with physicians, facilitates rapid escalation of clinical review, and ensures adequate referral for complex cases.
4. AFA provides patient education services through a dedicated telephone hotline staffed by a team of nurses and treatment counselors.
5. AFA provides comprehensive data management, including logistic and financial data; monitors clinical services; and supports patient retention and adherence.



## Box Five (cont.)

The AFA program has demonstrated substantial success in mobilizing private companies and medical aid schemes for comprehensive HIV case management among employees. However, as of 2015, AFA reports that they are still battling the legacy of South Africa's HIV denialism, and they are seeing diminished returns on the extension of treatment programs due to noncompliance among patients. In terms of PMTCT, although many pregnant women are initiated and sustained on ART via the program, AFA reports that they often will not bring their newborn child for follow-up HIV testing. Even where early infant diagnosis (EID) is completed, it is difficult to ensure that HIV-positive infants are enrolled in care due to continuing stigma and fear among HIV-positive mothers.

Overall, AFA and similar disease management agents help link employed patients, their medical scheme, their doctor and pharmacist, and other health care providers involved in the delivery of comprehensive long-term ART management. Through regular reporting of consolidated patient clinical, demographic, and financial data, this approach can help companies establish and refine their HIV strategies. A key drawback of the approach is its reliance on employer-provided health insurance. When patients lose their coverage or change jobs, their continuity of care is at risk. In addition, company-sponsored programs will need to address the challenges patients face when seeking to address parallel health needs (e.g., treatment for tuberculosis, complex coinfections, and drug resistance) that may not be covered by HIV benefit schedules in common medical aid schemes.

**Lessons Learned:** *Private disease management firms could be a strong resource to help private corporations address the HIV-related health needs of their workforce, while also helping companies to monitor the cost and financial impact of providing HIV treatment. As governments and implementers seek to strengthen private-sector engagement in other high-HIV-burden contexts, the use of private disease management agents could provide a vital and sustainable link between public and private actors.*

## Public-Private Partnership Models for Task-Sharing and Other Joint Ventures

The private health sector rarely engages in PMTCT service delivery in complete isolation from government, due to regulatory requirements and MOH control of PMTCT commodities in most high-HIV-prevalence settings. More often, private providers are engaged in PMTCT activities via direct partnership with the government. These multisectoral activities can take many forms, with varying degrees of private and public responsibility and risk. To fully qualify as a PPP for health, UNAIDS has argued that the collaboration “must be characterized by a formal agreement, joint objectives, mutual contributions, and an interaction in partnership management” (2009). PEPFAR further argues that “the private sector must contribute at least as many resources—cash and in-kind—as PEPFAR contributes in funding” (2015).



Numerous nonprofit and faith-based organizations have long participated in formal partnerships with governments to deliver HIV services, often via a memorandum of understanding. Governments and HIV implementers are now looking to expand the use of PPPs to commercial actors to formally engage and leverage their talent and resources. However, while PPPs can rapidly scale up PMTCT service coverage via private providers, these interventions can be complex, and require strong public-private collaboration to ensure private PMTCT services complement public services. Numerous private provider associations and networks could be immediately leveraged to integrate PMTCT services into their ANC, HTS, or family and child health programs. Box 6 gives an example of a Tanzanian PPP developed for this purpose.

## Box Six

### **Private Nurses and Midwives Association of Tanzania (PRINMAT): A PPP to Share the Delivery of Integrated ANC/PMTCT B+ Services**

Two major roadblocks have hampered Tanzania's implementation of its national eMTCT plan. First, Tanzania has one of world's most acute health provider shortages, with only 0.03 physicians and 0.37 nurses and midwives for every 1,000 people as of 2012 (WHO 2015d; Charts-Bin 2011). In addition, historical tensions between the public and private sectors have limited the potential impact that Tanzania's robust and well-organized private health sector could have on the HIV epidemic (White et al. 2013).

In 2014 the MOH PMTCT Section, PPP Technical Working Group, and PRINMAT, with support from the USAID-funded SHOPS Project, launched a national PPP to immediately scale up the availability of PMTCT B+ services through PRINMAT's national network of private nurses and midwives. Seventy-five nurses and midwives, from 53 facilities that offer ANC and maternal/child health services in urban poor and rural underserved areas, were trained to provide PMTCT B+. The MOH PMTCT Section issued a countrywide government directive to district medical officers allowing for the release of government-controlled PMTCT commodities to trained PRINMAT providers.

Over the first nine months, 7,599 pregnant women received HTS as part of ANC, labor, or delivery services at PRINMAT facilities; of these, 337 were confirmed HIV-positive. An additional 199 pregnant women of known HIV-positive status received PMTCT B+ intervention services with PRINMAT providers. In total, PRINMAT nurses and midwives initiated 316 HIV-positive pregnant women on ART, and referred an additional 91 to a nearby public facility. During the first nine months, 157 deliveries occurred for HIV-positive women; 47 of these infants received an initial EID dried blood spot DNA-PCR (polymerase chain reaction) test with 87.8 percent testing negative. Beyond these service gains, the PPP broke down barriers between the public sector and PRINMAT providers. PRINMAT providers were the first cohort trained by the MOH in the nation's new PMTCT B+ protocols, and during the pilot implementation period, they were increasingly invited to participate in district-level HIV and health planning sessions.



## Box Six (cont.)

The program faced two important challenges. First, 24 percent of pregnant women diagnosed as HIV-positive at PRINMAT were subsequently lost to follow-up. While attrition from PMTCT programs is a known issue across the treatment cascade, the PRINMAT experience highlights the importance of robust patient monitoring and retention measures during private-sector introduction of PMTCT services. Also, because PMTCT commodities were provided by the public sector under the PPP, the private PRINMAT facilities were vulnerable to the same supply chain interruptions and commodity stock-outs that hamper public-sector PMTCT efforts in Tanzania. For example, 201 pregnant women were unnecessarily referred out of PRINMAT facilities for HTS due to shortages of government commodities at the district level that prevented PRINMAT from obtaining adequate supplies.

**Lessons Learned:** *Private-sector nurses and midwives can have a powerful, immediate impact on the delivery of integrated ANC/PMTCT B+ services. However, this type of PPP requires an increased focus on commodity supply chains and patient retention strategies as part of private-sector PMTCT activities.*

## Government Contracting to Private Providers

In addition to forming PPPs, governments may choose to engage private providers and networks more deeply in the extension of PMTCT services by implementing outsourcing contracts or other formal service-level agreements. Such approaches have been pursued in South Africa to increase ART enrollment capacity at overwhelmed public health centers (White et al. 2013), in Botswana to alleviate human resource shortages in public ART centers (Dreesch et al. 2007), and in Tanzania to extend the reach of HIV and other priority health interventions to rural populations (SHOPS 2014b). In this context, to “contract out” refers to a process by which a purchasing organization pays a private health care provider to deliver a specific set of health goods or services to the purchaser’s clients at the provider’s facility (Tayag, White, and Mijares 2014). Although this brief focuses on contracting as a form of PPP—where the purchasing organization is a government agency or national health insurance scheme purchasing services from providers in the private sector—a private entity, such as an employer or medical-aid scheme, could also serve this purchasing function.

A public-private contract for health services can be structured in numerous ways. Generally, it would require adequate government financing and a detailed description of what the government intends to purchase; who the intended recipients are; how the government will pay for the service; and what levels of quality are expected for the service. To be effective, such agreements should ensure that all stakeholders are clear on their roles and responsibilities regarding reporting, the use of drug and commodity formularies, and compliance with regulatory requirements. The agreements should be monitored closely to fix any management issues as they arise and ensure all partners are meeting their service delivery, financing, and quality assurance responsibilities. The next two boxes describe two approaches for delivering private-sector PMTCT services: a PPP in India (Box 7); and a contracting arrangement managing HIV care in South Africa (Box 8).



## Box Seven

### The SAATHII Project Consortium in India: A PPP to Scale Up Delivery of PMTCT through Independent Private Facilities

Since 2002, the Solidarity and Action against the HIV Infection in India (SAATHII) Program has sought to rapidly scale up private sector delivery of PMTCT services in high-need areas (SAATHII 2012b). The program is a PPP between the Government of India and a consortium of seven nongovernmental organizations (NGOs) located in four of India's high-HIV-prevalence states. The consortium receives funding from USAID via the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF), Johnson & Johnson, and the M·A·C AIDS Fund. SAATHII was initiated at 381 private health facilities across 58 high-need districts in India, where SAATHII and EGPAF personnel provided technical, programmatic, and financial assistance to the affiliated private health providers to help them scale up PMTCT services. In 2012 the PPP added 200 private facilities in 32 more districts. In addition to PMTCT technical support, the program works to improve supply chain management, reporting, quality, and linkages between private and public points of care.

Over the first 10 years (2002–2012), the SAATHII program increased national coverage of HTS provided to pregnant women by 3 percent, expanded PMTCT service delivery coverage by 6.4 percent, and increased the number of private facilities reporting PMTCT outcomes to the government by 40 percent. Although significant, these results were much lower than the initial target of increasing PMTCT service coverage by 15–20 percent (SAATHII 2012b). While national gains were less than anticipated, some states experienced better results. In Andhra Pradesh, the state with highest HIV prevalence, SAATHII trained 4,500 private health care workers and helped 306,000 pregnant women access HTS, 965 HIV-positive pregnant women initiate ART, and 733 HIV-positive women deliver at private facilities (SAATHII 2012a).

SAATHII faced two primary challenges: persisting mutual distrust between private- and public-sector stakeholders, and a lack of public or private ownership to implement and sustain PPP activities. This mistrust resulted from inconsistent access to public-sector supplies, delayed payments, and cumbersome reporting requirements that led to underreporting. Due to the inconsistent supply of test kits, some SAATHII sites were unable to provide services, while others reverted to independently procuring test kits and billing costs to the patient, which reportedly discouraged many patients from being tested. SAATHII partners and EGPAF attempted to address these challenges by transferring commodities between facilities and asking the Indian government to fast-track private supplies. In addition, government PMTCT training was a challenge for private providers, who were unable to be away from their facilities for the required duration. Advocacy by SAATHII enabled private trainings to be condensed from five to two or three days, which significantly improved private providers' ability to obtain the necessary certification. SAATHII's onsite mentorship at private clinics allowed the program to reach additional private providers and hospital staff, and helped private providers avoid travel expenses, limit their absences from work, and introduce PMTCT services without overly burdensome requirements.

**Lessons Learned:** *The private sector can help introduce more efficacious PMTCT protocols and translate the nation's eMTCT goals into rapid facility-level action with the right support. PPPs can help coordinate private providers, link private and public points of care, and rapidly scale up the delivery of PMTCT via private health facilities.*



## Box Eight

### Right to Care Health Services in South Africa: Contracting Out and Down-Referral to Private Providers

To address South Africa's significant PMTCT coverage gap, many employers and medical aid schemes (financial risk pooling organizations that perform functions similar to a health insurance company) have contracted Right to Care Health Services (RTCHS) to deliver a range of HIV services, including PMTCT (Tayag, White, and Mijares 2014). RTCHS is a private company that manages HIV services with financial and technical support provided by USAID under PEPFAR. If patients covered by the program test positive for HIV, they are registered with RTCHS, which works through a network of private general practitioners who have been trained to provide HIV care and treatment.

Under the RTCHS Direct AIDS Intervention Model, employers and medical aid schemes contract the company to deliver basic HIV coverage for their beneficiaries through their network of private general practitioners (GPs) and laboratories at their facilities. Employers and medical aid schemes determine their benefit packages, which generally cover outpatient and hospitalization services, HTS, multivitamin and food supplements, laboratory services, and ARVs. The patients receive care from the GPs, who then invoice RTCHS, which in turn bills for reimbursement against the medical schemes or employer-set fees that are negotiated on an annual basis. RTCHS also assigns patients to a case manager who oversees their care and treatment from a call center.

Employers view this arrangement as a tool to improve employee productivity, promote occupational safety, and reduce absenteeism and staff turnover (Tayag, White, and Mijares 2014). Through this experience, RTCHS, employers, and medical aid schemes learned to deliver HIV services such as PMTCT efficiently and with high quality. Many factors contribute to RTCHS' success: (1) developing streamlined billing procedures that reduce administrative burdens; (2) using local collection depots near patients' homes and workplaces (rather than GP visits) for routine testing; (3) opening on-site RTCHS pharmacies to better coordinate with patients' case managers; (4) dispensing up to three months of medication at once to reduce the need for return visits; and (5) using text messages to remind patients about refills (Tayag, White, and Mijares 2014).

RTCHS has encountered many barriers that apply to most PMTCT programs, such as difficulty getting pregnant women to start ANC early (before 20 weeks) and involving male partners for couples counseling and testing. In addition to general clinical issues common to most PMTCT programs, RTCHS has also faced challenges specific to the contracting-out process. These include administrative issues such as maintaining correct contact information for beneficiaries; ensuring accurate communication between pharmacies and patients; integrating information systems between RTCHS and patients' employers or medical schemes (poor integration leads to payment delays); addressing patient concerns about continued access to HIV care if their employer or medical scheme terminates contracts with RTCHS; and managing the GP network, especially when patients requested GPs who were outside the network (Tayag, White, and Mijares 2014).

**Lessons Learned:** *Contracting arrangements specific to HIV or other diseases will raise unique issues. Contracts and expectations must be transparently discussed and jointly determined by public and private partners from the outset to help ensure clarity in the key functions of contracting arrangements, such as who is paid, for what services, how payment is made, and how partners can make sure that they mutually benefit from the arrangement. For sustainable delivery of PMTCT, these arrangements must be clear among all stakeholders.*



## State Financing of Private Service Provision

Governments can support private-sector contributions to achieving public health goals more directly by contributing financial resources to a private facility's general operating budget, or to specific private PMTCT projects. This funding is typically offered in exchange for the private facility providing specific public health services at no cost to the patient. Such *state-aided* private financing approaches require the highest degree of sustained government financial and regulatory support. As in the South Africa example in Box 9, such arrangements often require a private facility to obtain state-aided or other specific legal status in order to qualify for direct public financial contributions.

### Box Nine

#### **The “State-Aided” Model at McCord Hospital in South Africa: Public Financing to Maximize Private-Sector Service Delivery**

McCord Hospital, a registered state-aided facility in KwaZulu-Natal, provides a successful example of how governments and private entities can work together to scale up the delivery of PMTCT. However, it also serves as a cautionary tale highlighting the challenge of sustainably providing public subsidies to finance private PMTCT services. In operation for more than 100 years, McCord has a mandate to deliver comprehensive, affordable, high-quality care to those without health insurance. McCord was one of the first South African facilities to respond to the HIV epidemic, opening an HIV-dedicated clinic in 1996 during the period of national HIV denialism that delayed the South African government's response. Initially, HIV care at McCord was mainly funded by out-of-pocket payments from patients, with supplemental funding from private donors. This severely limited the number of people able to access PMTCT and ART services (Giddy 2005).

In 2004, PEPFAR, with assistance from EGPAF, established the Help Expand Antiretroviral Treatment (HEART) Program at McCord to increase the number of patients receiving affordable ART and PMTCT services. The Gauteng Provincial Department of Health (DOH) provided 43 percent of the hospital's total operating budget. This external support allowed McCord to serve as an affordable alternative to overcrowded public facilities or prohibitively expensive private sources (Giddy 2005). Over the first several years of the program McCord reported very strong mother-baby outcomes, with MTCT estimated at approximately 5 percent, compared to the national estimate of around 18 percent in 2005–2006 (Giddy 2005).

However, the program also reported several technical challenges in its early stages, including insufficient staffing to deliver an integrated primary health care/ANC/PMTCT model. Early problems with patient monitoring and follow-up resulted in an approximately 11 percent loss to follow-up among HIV-positive pregnant mothers. Importantly, in 2005–2006 it was unclear how many mothers continued receiving services after delivery. Although McCord Hospital reports that completion of the PMTCT cascade improved over time, there was a critical need to emphasize linking positive mothers and babies to integrated mother-baby ART services after delivery (Geddes et al. 2008). This required improvements to McCord's logistics, patient flow, and appointment process via a computerized monitoring and evaluation system.



## Box Nine (cont.)

Although McCord Hospital is an important example of how private entities can rapidly scale up the delivery of PMTCT services, the hospital faced severe health financing challenges. McCord's reliance on out-of-pocket payments from patients in the late 1990s reduced the potential impact of the program and excluded a number of vulnerable and low-income patients. This was partially resolved by funding from external donors and the state. However, in 2013 the phase-out of McCord's PEPFAR funding coincided with a major disruption in the financing agreement between McCord and the KwaZulu-Natal Provincial DOH. Loss of the state subsidy meant that the facility could no longer operate under a state-aided license and legal status. Although the hospital tried to transition to a purely private model, the licensure process, time needed to transition operations, and lack of additional funds for continuing subsidized services for vulnerable patients proved prohibitive. McCord Hospital controversially ceased operations and closed its doors in early 2013, generating a public outcry and placing burdens on patients and already overwhelmed public services nearby.

**Lessons Learned:** *Although a new joint technical team was put in place to oversee the partnership and promote sustainability of McCord's programs (eNews Channel Africa 2013; U.S. Department of State 2014), the 2013 funding crisis demonstrated the challenge of brokering and sustaining partnerships and the inherent vulnerability of PMTCT programs that are, or have been, reliant on external funding sources.*

## SECTION 2: ENGAGING PRIVATE ACTORS IN COMMUNITY-BASED PMTCT ACTIVITIES

The models outlined in Section 1 demonstrate efficacy in scaling up the supply of private facility-based PMTCT services. However, even when the full range of services is available, significant community and social barriers to access remain. In many high-HIV-prevalence settings, it is difficult to reach vulnerable groups needing PMTCT services—including women of reproductive age who do not know their HIV status, adolescent girls, the poor, and key populations such as sex workers. PMTCT programs in both the public and private sectors continue to demonstrate high loss to follow-up of HIV-positive mothers during the immediate postnatal and 18-month breastfeeding period (Ferguson et al. 2012; Makhanya 2014; Rawizza et al. 2015; Sibanda et al. 2013). Extending PMTCT interventions to the many women in high-HIV-prevalence settings who do not seek ANC or facility-based delivery is an ongoing challenge (Shiferaw et al. 2013; UNICEF 2010; Wanyu et al. 2010).

Numerous local resources in the private sector—CHW organizations and cadres, community-based organizations (CBOs), civil society organizations (CSOs), and PLHIV support groups—are underused, and have great potential for reaching these key groups (Ezeanolue et al. 2015). Engaging private CBOs and CSOs is a critical component of all future HIV prevention and treatment efforts (PEPFAR 2014). Because these local groups are made up of members of the community—and often involve PLHIV—their activities can be incredibly effective in identifying and counseling pregnant woman at risk, linking them to care, and provid-



ing ongoing support to ensure that both HIV-positive mothers and HIV-exposed infants receive the full cascade of PMTCT care. In addition, they can support facility-based PMTCT services through activities such as demand creation, linkages and retention, and supportive case management. The activities of CBOs and CSOs are critical to ensuring that HIV-positive mothers understand the importance of the PMTCT steps they are taking, and that they and their babies receive the necessary follow-up and supportive case management to overcome treatment barriers (Ciampa et al. 2011; Klaus et al. 2015; Tweya et al. 2014).

The case studies that follow highlight examples of how private organizations were able to effectively extend the reach of PMTCT services beyond facility-based interventions to reach priority groups in communities. Figure 2 depicts a range of community-based interventions that can operate in parallel to or in coordination with facility-based private-sector interventions.

**Figure 2. Demand-Side, Family-Focused, and Community-Based Private Sector PMTCT Interventions**





## Involving Traditional, Faith-Based, and Community-Based Care Actors

There is a recognized need to involve traditional and religious leaders, members of faith-based communities, and other community actors in strengthening access to and completion of PMTCT programs. Lack of knowledge about the PMTCT cascade among health care providers and HIV-positive mothers has led to demonstrated loss to follow-up among mother-baby pairs during the postnatal and breastfeeding periods. Examples of nonstate activities seeking to strengthen demand for and retention in facility-based PMTCT services include the Murambinda Mission Hospital's use of a faith-based education approach in Zimbabwe, described in Box 10.

### Box Ten

#### **The Murambinda Mission Hospital in Rural Zimbabwe: Improving PMTCT Uptake and Retention via Faith-Based Community Education Activities**

Starting in 2001 Murambinda Mission Hospital was one of the first sites to implement a PMTCT intervention in a rural Zimbabwe setting. The hospital operates a network of 27 satellite health centers throughout the district that serve a rural population of 274,000 people. The hospital's PMTCT activities received financial and technical support from a number of external partners, including EGPAF, the Organization for Public Health Interventions (OPHID), the Zimbabwe Ministry of Health and Child Care (MOHCC), the Institute of Public Health at the University Victor Segalen-Bordeaux, France, and Children AIDS Caring Initiative (CACI).

In addition to offering HTS as part of routine maternal and child care at the hospital and its satellite centers, the Murambinda PMTCT Project uses information, education, and communication activities to increase community knowledge about HIV infection and prevention. Community information sessions and group meetings disseminate educational materials targeting pregnant women, women of childbearing age, men, community and social leaders, and other community members (Perez et al. 2004). In addition, clinic staff are trained to refer clients to community-based psychosocial support, home-based care services, and a PLHIV support group developed at the hospital as part of the project.

The project also engages the Dananai Program, a well-established CBO, to introduce peer education strategies on HIV. Through the Dananai Program, the Murambinda PMTCT Pexandrogram trained 32 community-based HIV volunteers in basic PMTCT, HIV, and counseling skills and established breastfeeding support groups, while the Zimbabwe MOH delivered further training on HIV rapid testing and infant feeding protocols.

A review of the program's first 18 months found increased acceptance of HIV testing by rural women (92.9%); 63.4 percent of deliveries received a complete mother-child nevirapine-based treatment protocol that was prevalent at the time (Perez 2004). Nevertheless, the program faced many of the same challenges that community-based PMTCT programs still face, including high loss to follow-up at each phase of the PMTCT cascade (Perez 2004). By 2015, however, 93 percent of HIV-positive pregnant women were initiated on ART and 100 percent of HIV-exposed infants were initiated on prophylaxis, up from 44 percent and 70 percent, respectively, in 2011. During this period a District Focal Person stationed in the district provided site-level implementation support and coordination to help the hospital rapidly transition from single-dose nevirapine to Option B+ within one year after the MOHCC adopted the policy in 2012. By the end of 2015, all centers were providing Option B+ to mothers in ANC and using dried blood spot tests for EID.



## Box Ten (cont.)

The program experienced early challenges with lack of service decentralization, since only hospital-based follow-up could be organized during the first phase, and women normally sought child immunization services at their nearest satellite center. Other challenges included lengthy turnaround times for EID results and limited male partner involvement. However, HIV prevention, care, and treatment services have since been decentralized to all referring sites, and village health workers are carrying out active tracking of mother-baby pairs.

**Lessons Learned:** *The Murambinda experience reinforces the importance of community-based linkage, retention, and follow-up activities as part of any comprehensive PMTCT strategy. An early review of the project by Perez et al. (2004) concluded that a decentralized district approach with comprehensive follow-up, community referral systems, and community participation is critical to extending PMTCT programs in rural settings.*

## Expanding Delivery of Home- and Community-Based PMTCT Services and Support

By providing PMTCT and ART services in home settings or via community-based case management, private community-based actors can significantly strengthen the retention of HIV-positive mothers during ANC and early ART initiation, as well as during the critical postnatal exposure and EID phases. A best-practice model using mothers as mentors to promote retention and PMTCT completion is South Africa's mothers2mothers International Project described in Box 11.

## Box Eleven

### **mothers2mothers International in South Africa: Using Peer Mentors to Promote PMTCT Uptake and Mother-Baby Retention in Care**

Founded in 2001, mothers2mothers International (M2M) is a South Africa-based NGO currently operating PMTCT and integrated health support projects in seven African countries: Kenya, Lesotho, Malawi, South Africa, Swaziland, Tanzania, and Uganda. M2M's flagship program is the "Mentor Mother Model," in which M2M trains mothers living with HIV to provide peer-to-peer support as a supplemental PMTCT intervention in both facility- and community-based interventions. M2M mentors are employed and trained as lay health workers in line with relevant national community health strategies. They support patients' access to treatment and support services, convene support groups, and provide community-based teaching and empowerment to pregnant women or new mothers accessing PMTCT services (mothers2mothers n.d.a) In 2013 alone, M2M support services reached 99,450 HIV-positive pregnant women and new mothers across the seven M2M countries (Zikusooka et al. 2014). Although to date M2M has focused mainly on public PMTCT clinics, recently the organization has increasingly engaged with private providers.



## Box Eleven (cont.)

The M2M model emphasizes facility-based psychosocial support and peer counseling during regular clinic operating hours, and occasional home visits for clients requiring additional support. The mentors encourage HIV testing for those with unknown HIV status, and they provide counseling on HIV prevention, ANC, and early childhood care. One-on-one mentorship begins when the client starts ART, and continues until the infant is two years of age (Skowronska 2015). To retain clients, mentor mothers follow up directly with patients who have missed appointments or are lost to follow-up.

M2M has enjoyed tremendous success, and has been identified by UNAIDS as a PMTCT best practice (mothers2mothers n.d.a) A 2013 program evaluation highlights the mentor model's contributions to both higher uptake of maternal and infant PMTCT services (often more than the national rate) and higher rates of disclosure to women's partners, uptake of family planning, and exclusive breastfeeding (Okonji et al. 2014). In 2013, as a direct result of the model, the percentage of M2M clients who attended a second ANC visit, disclosed their HIV status, had a CD4 test and received their result, initiated ART, attended a postnatal visit, and solicited an ARV intervention during breastfeeding all increased (Okonji et al. 2014). In addition, clients who received two or more mentoring visits were more likely to have disclosed their status and to be exclusively breastfeeding after six months (Zikusooka et al. 2014).

The largest barrier reported by M2M was resistance to PMTCT Option B+ by women averse to lifelong treatment, especially when they do not have symptoms or feel sick. To address this issue, M2M extended the length and number of client counseling sessions to more fully explain the benefits of ART for both the mother and her baby.

The percentage of M2M clients who delivered in a health facility and received ARVs during delivery remained constant from 2011 to 2013 (Okonji et al. 2014), as did the number of infants who received an EID PCR test and the test results at 6–8 weeks (Zikusooka et al. 2014). The M2M model therefore exhibits many of the common “late-cascade” challenges, with only 28 percent of infants receiving a second and final HIV test and 28 percent of those infants receiving the result (Zikusooka et al. 2014). Because M2M mentors are paid a salary, there are also concerns about the availability of financial resources for other implementers to scale and sustain the model.

**Lessons Learned:** *Overall, the M2M model demonstrates the tremendous impact of community-based and supplemental facility-based psychosocial interventions on several PMTCT outcomes. In particular, the involvement of mothers living with HIV who have received PMTCT themselves promotes a strong and proven peer-to-peer approach that can greatly facilitate mothers' uptake of and retention in PMTCT care.*



## Box Twelve

### Strengthening Community and Rural Access to PMTCT Services

Any comprehensive PMTCT strategy must also address the significant structural, community, family, and individual barriers that prevent many HIV-positive pregnant women and their babies from reaching critical services. Private actors have implemented several models exploring the delivery of PMTCT services at home or in other non-facility settings in the community. One model demonstrating non-state approaches to scale up community-based delivery of ART is the *Médecins Sans Frontières* (MSF) Community ART Group (CAG) model described in Box 12.

#### **The MSF Community ART Group Model in Rural Mozambique: Reducing Patient and Provider Burden in the Delivery of Long-Term ART**

In Mozambique in 2008 MSF partnered with the MOH Direccção Provincial de Saúde (DPS) in Tete Province to reduce the burden of facility-based ART maintenance visits through Community ART Groups. Each CAG consists of six stable ART clients who collect a monthly allotment of pills on each other's behalf at the clinic, visiting the facility in a rotation to minimize individual trips. The CAG model was designed to overcome patients' barriers to ART, empower them in self-management of the disease, and reduce the burden on health care personnel.

The pilot study demonstrated significant successes, including over 90 percent retention in care for CAG members (Rasschaert et al. 2014). A 2014 study found that the model was strongly embedded in the community, and that patients were taking an active role in their own and their peers' health care. However, contextual factors such as poverty, illiteracy, and health system weaknesses influenced its outcomes (Rasschaert et al. 2014). For example, some CAG members delivered the wrong ART regimen to the wrong peer, and changes in dose or pill type confused clients. Also, the model did not necessarily improve patient adherence to treatment. As in most high-prevalence, resource-poor settings, barriers such as ARV stockouts at the facility level and stigma among partners, family, or community members remained.

The study concluded that the model had significant technical potential, but required further problem-solving in terms of sustainable financing and human resources. This was due to its dependence on external resources, particularly MSF personnel, to help form and monitor the groups (Rasschaert et al. 2014). In Mozambique MSF is currently scaling down operations and there is concern that its financial and technical support for operating and expanding the CAG model will not be replaced by government or additional donor funds. As of the end of 2015, Mozambique's MOH had adopted the CAG model to support the country's 2014 national guidelines and HIV strategy. There are still misperceptions that the CAG model is solely run by MSF, a belief that has undermined MOH ownership and advancement of the model in areas where MSF is still active. Despite difficulties in the transition to country ownership, the MOH has reported success and strong management of the program in areas where MSF is no longer active or was never involved.

**Lessons Learned:** *Community-based task-sharing approaches involving PLHIV themselves could help reduce costs and ease burdens on facility-based care; have a transformative effect for patients; and help strengthen uptake of and retention in ART programs. Similar models could be adapted for PMTCT services, particularly to address the psychosocial, informational, and socioeconomic barriers that drive late-cascade patient loss in current PMTCT programs.*



## Linking Community- and Facility-Based Interventions

Effective linkages between community- and facility-based interventions are essential to ensure that HIV-positive pregnant women receive the full spectrum of PMTCT services; and that they are supported through delivery, educated on how to protect and test their newborn, and effectively supported to continue long-term ART. An example of one such nonstate initiative to improve continuity of care between community and facility services is the Traditional and Modern Health Practitioners Together Against AIDS (THETA) Family Support Group approach outlined in Box 13.

### Box Thirteen

#### **THETA Family Support Groups in Uganda: Linking Village Health Teams and Facility-Based Health Care**

In Uganda, more than 20,600 children are infected with HIV every year through MTCT (AVERT 2014). In 2013 the THETA initiative implemented community-based PMTCT projects in 10 districts in the country's northern, eastern, and central regions. THETA—Traditional and Modern Health Practitioners Together Against AIDS—is a Ugandan NGO with a mandate to improve the health of Ugandans by promoting collaboration between the traditional and biomedical health systems. Funded by the U.S. Centers for Disease Control and Prevention, the THETA initiative focused on increasing uptake in Uganda's national eMTCT program via community-based models.

The goals of the models were: (1) mobilizing village health team (VHT) members for health communication activities, (2) creating community-to-facility referral systems to increase access to facility-based PMTCT services, and (3) establishing family support groups for sharing experiences and providing a forum for community support (Godfrey 2014). VHT members conduct home visits to educate the community, especially pregnant and lactating mothers on available PMTCT services. VHTs also receive training in data collection, management, and reporting so that they can record home visits for monitoring and evaluation purposes. Community support teams and district-based trainers are also trained in PMTCT services so that they can supervise VHTs to ensure quality and reporting of services (Godfrey 2014). Family support groups established in participating communities became a "safe place" where group members provide support services, including retention in care, adherence, stigma reduction, and others. The groups also served as a forum for following up HIV-exposed babies for EID. Over five years, the THETA-supported VHTs referred 633,931 people to health facilities for various services, including 30,203 HIV-positive pregnant women and 19,896 HIV-positive lactating mothers (Godfrey 2014).

**Lessons Learned:** *Because community-based health programs understand the communities in which they serve, the programs are respected and trusted by those they are trying to reach. Establishing a forum for safe and open discussion allows PLHIV to feel supported by the community rather than ostracized, which empowers them to start or continue treatment. Similar community models could be adapted from the THETA activities, though they would require an active and engaged population.*



## PROGRAMMATIC CONSIDERATIONS, LESSONS, AND PRIVATE-SECTOR CHALLENGES

This brief has presented a range of approaches used to engage the private health sector in delivering PMTCT services in resource-poor and high-HIV-prevalence settings. These implementation experiences demonstrate how the private health sector can help governments and public health implementers address persistent global challenges in delivering PMTCT services. Private health providers can help increase geographic and population coverage of PMTCT services; help governments extend services to rural, poor, and hard-to-reach communities; and support MOHs to deliver a comprehensive public health package across both sectors that increases the availability of “one-stop” integrated ANC, reproductive, maternal, newborn, and child health (RMNCH), and PMTCT B+ services.

Engaging and leveraging the human resource capacities of existing private health providers can also help governments address public health workforce shortages that currently limit the scale-up of national PMTCT programs around the world. In addition, private providers can help extend PMTCT to community-based points of care, mobilize CHWs and other community actors, and scale up sustained community access to and retention in PMTCT services.

### Key Programmatic Considerations in Private Provision of PMTCT

The examples presented in this brief vary widely but reveal several consistent programmatic considerations that can inform future private sector PMTCT engagement strategies and help leverage the collective and comparative strengths of public and private stakeholders.

#### **Private providers must be adequately organized to scale up PMTCT services.**

The term *private health sector* includes a broad range of health professionals and providers that vary by type, size, and specialty. Organizing these groups of private actors—many of whom may never have been formally engaged in a collaborative effort—is often a critical first step in systematically introducing private sector PMTCT services. Private-sector coalitions, networks, and umbrella bodies can serve as a powerful platform for introducing commercial or nonprofit PMTCT activities to numerous private providers at one time. This type of mutual collaboration benefits providers, for example, through potential pooling of human and financial resources and representation and advocacy in national-level policy and strategy forums. Forming new coalitions and leveraging existing provider umbrella bodies can help formalize and coordinate multiple private points of care, connecting the providers to government via a single entity that can address quality issues, clinical mentorship, reporting, and regulation. As highlighted in the Right to Care Health Services and Aid for AIDS South Africa examples, the involvement of private sector umbrella bodies, networks, or associations may be crucial to success in the case of contracting arrangements or other more robust PPPs for PMTCT. This is due to the more intensive public-private interaction, reporting, mutual obligation, and ongoing review and revision of financing and payment mechanisms required to implement such models.



### **Private-sector PMTCT activities require government buy-in and regulatory support.**

Private-sector PMTCT activities are rarely pursued in complete isolation from governments, since PLHIV, pregnant women, infants, and children are often considered *fee-exempted* risk groups in many high-HIV-prevalence settings. PMTCT commodities (in particular ARV medications) are typically government-controlled, with restricted access, with governments having regulatory and public health monitoring functions. Where private providers deliver PMTCT activities without any government involvement, concerns arise over their disconnection from the national health system and HIV response, their lack of reporting to the larger system, the source of commodities, and the quality of clinical interventions. Therefore, the degree of private-sector independence and maneuverability in introducing PMTCT services will depend on the specific context and on national PMTCT legislation, commodity access restrictions, and regulations pertaining to fees for PMTCT and other health services.

At minimum, the government plays a health system stewardship and regulatory role that requires provider certification, reporting of PMTCT service data, and enhancement of public-private referral and coordination mechanisms. Many programs highlighted in this brief were able to achieve rapid introduction and increased supply of PMTCT services through some form of public-private collaboration—ranging from informal cooperation to more robust PPPs and multisectoral joint ventures.

### **Public-private partnerships can strengthen private PMTCT activities.**

When PPPs for PMTCT are carried out effectively, they can serve governments by integrating private providers and their capacities into the national HIV response. PPPs also help private providers by giving them access to publicly mandated trainings, controlled commodity inputs, or revenue-generating service contracts. Finally, they benefit patients by providing them with enhanced provider options within a unified, safe, and integrated multisectoral PMTCT response.

All of the PPP models described in this brief—including the PRINMAT PPP for nurse-midwife task-sharing in Tanzania, the SAATHII Program in India, and the PPP contracting approach used by the Gauteng provincial government and RTCHS South Africa—demonstrate the positive impact that public-private collaboration can have on rapidly scaling up the availability and uptake of PMTCT services via private facilities. The PRINMAT PPP example demonstrates how task-sharing PMTCT to private nurses and midwives can immediately help address human resource shortages in the public sector. SAATHII demonstrates how formal PPP arrangements can help isolated private providers interact with government in a mutually supportive manner. The examples of franchising, provider networks, and corporate coalitions demonstrate how private umbrella bodies can facilitate the success and impact of PPPs. In addition, more formal and robust PPP mechanisms—such as contracting and purchasing arrangements—can develop lasting and sustainable multisectoral initiatives for PMTCT scale-up.



## **Integrating family-focused PMTCT services with private commercial ANC and RMNCH services has been successful.**

Integration of PMTCT services into existing ANC and RMNCH points of care has become a cornerstone of many national PMTCT responses. It has proven to rapidly expand population coverage of PMTCT and strengthen private-public engagement in other HIV service areas. Private health facilities—in particular those already providing ANC or labor and delivery services in peri-urban or hard-to-reach communities—may be well placed to provide a full spectrum of family-focused PMTCT and ART interventions. Integrating ANC, PMTCT, RMNCH, and other health services at a single point of care can promote mother-baby progression through the conclusion of the PMTCT cascade, including safe delivery, mother-baby retention through EID, results collection, and breastfeeding. Such integration can also link to ongoing maternal and pediatric ART. In addition, family-focused and integrated PMTCT programs can also increase male involvement by encouraging fathers to accept testing and attend ANC/PMTCT visits.

The models explored in this brief suggest the need to pursue such approaches as part of private ANC activities to achieve long-term retention and therapeutic outcomes across the PMTCT cascade. Several of the PPP models explored—including the PRINMAT nurse-midwife ANC/PMTCT activity in Tanzania and the THETA Family Support Group approach in Uganda—have focused on integrating or linking family-focused PMTCT platforms into existing private ANC and RMNCH efforts. Governments and implementers should consider replicating and expanding such approaches to integrate PMTCT via the numerous independent and networked private facilities already providing significant ANC, labor and delivery, and women's health services in high-HIV-prevalence settings.

By focusing on private ANC and RMNCH facilities as a priority avenue for private-sector engagement, PMTCT services can be mainstreamed into family and women's health services across the health system, and in areas currently beyond the reach of government. In Tanzania, for example, the PRINMAT network delivered 7,599 HIV tests to pregnant women in poor, peri-urban, community-based settings as part of their regular private ANC and child health service platform. However, as the Huduma Poa Health Network example from Kenya demonstrates, overly cumbersome government restrictions on HIV service integration at private ANC and RMNCH facilities and private provider disincentive to offer free or exempted services, can limit the impact of such programs. To maximize opportunities and enhance private providers' incentives to invest their clinical capacity in delivering PMTCT, governments can ensure that required national training programs and other certification requirements are made readily available to private providers, and that PMTCT commodity inputs are reliably available for private-sector service delivery.

## **Companies and the private corporate sector can play an enhanced role in reaching eMTCT targets.**

Several corporate and company-led initiatives presented in this brief demonstrate the strong impact that corporate actors can have on HIV and PMTCT initiatives. The Mopani Copper Mines Program in Zambia (Box 4) is just one example of the rapid and substantial impact private companies can have in scaling up and extending the availability of PMTCT services among employees, their dependents, and the communi-



ties in which companies operate. Corporate involvement in PMTCT and other HIV service delivery goes beyond appeals for CSR; it also provides financial and non-financial returns on investment that can be considered a part of sound core business strategies. Thus, there are significant opportunities to pursue diverse corporate collaboration in extending the reach of HIV services. Financial returns to companies providing PMTCT services would be most robust in industries employing a high proportion of women, where companies provide PMTCT services directly at the workplace or cover employees through private insurance. The involvement of disease management agents, NGOs, or brokers, such as the case of AFA South Africa, can help facilitate corporate PMTCT and HIV programs.

As many of the corporate-inspired and PPP models outlined in this brief demonstrate, increasing corporate investment and involvement in PMTCT provision will require transparent public-private interaction that breaks down barriers and builds trust. Such a process often requires an honest and neutral broker to help negotiate and initiate agreements. Disease management agents, business coalitions, and international technical assistance proved effective in this regard in several of the PPP examples highlighted in this brief.

### **Private PMTCT activities need community involvement to succeed.**

The inclusion of a community-focused component—such as CBOs, CSOs, and PLHIV themselves—has been critical to the success of many private PMTCT activities. Such approaches are key to increasing demand for PMTCT services at the community and household levels, promoting access to private services, and providing supportive counseling and social welfare interventions to promote mother-baby retention across the PMTCT cascade. Options for community involvement are diverse and involve provision of both clinical and non-clinical PMTCT services. In these projects, community-based nurses, midwives, CHWs, and CSOs of PLHIV have all succeeded in increasing home-based access to PMTCT and other RMNCH interventions.

Where private facilities do not offer community-based activities directly, there is potential in linking and integrating them with other biomedical and traditional models. The THETA Family Support Program in Uganda, the Murambinda Mission Hospital community outreach approach, and the experience of mothers2mothers all demonstrate how community activities undertaken in coordination with facility-based services can enhance retention and therapeutic outcomes of mother-baby pairs in PMTCT programs at the community level.

Furthermore, the CHW models highlighted in this brief underscore the importance of community-based actors in supporting early identification of retention risks, encouraging ongoing testing and collection of results, scaling up home- or community-based services, and promoting attendance at ongoing facility-based interventions. Models in this brief have explored the diverse use of family support teams, church groups, mother-mentors, and other expert patient cadres to extend the reach of community-based approaches.

Overall, private-sector PMTCT approaches stand to gain from addition of or linkage to a community engagement approach in a number of ways: sustaining demand for private PMTCT services; extending services to community points of clinical or supportive care; and involving the entire community to ensure that HIV-positive pregnant mothers and their newborns receive the care they need across the PMTCT cascade, and that they can be retained in care to live positively with HIV in the long term.



## Persisting Challenges Facing Private-Sector PMTCT Efforts

The private sector engagement models demonstrate several common challenges that must be overcome if private PMTCT efforts are to succeed.

### **Mother-baby retention and loss to follow-up remain problematic.**

Just like public-sector initiatives, private PMTCT activities experience common challenges with mother-baby retention and loss to follow-up across the PMTCT cascade. Many of the private-sector approaches included in this brief reported varied retention rates of mothers in ANC and receiving prenatal ART. In particular, several models demonstrated periods of high mother-baby attrition from PMTCT care during the postnatal, EID, and breastfeeding phases of the cascade. As discussed, these losses during “late-cascade” periods of PMTCT attrition occur in many public and private programs, where lack of counseling, limited patient information, socioeconomic barriers, or other individual challenges cause mothers to default from ART or fail to bring their infants for follow-up PMTCT testing and intervention. These losses emphasize the need to ensure that private PMTCT efforts go beyond facility-focused actions. As several of the community-based private models demonstrate, community and civil society actors have a large role to play in retaining mothers and babies in care; therefore, these actors should be considered as necessary components of any private PMTCT effort. At a minimum, governments and donors can support private PMTCT programs to link their facility-based services to existing community-based or CSO activities carried out by other private actors or the public sector.

### **Private providers have difficulties accessing diagnostic and commodity inputs.**

Irregular and insufficient access to diagnostic and commodity inputs has been a major challenge in advancing private-sector PMTCT efforts via PPPs. Consistent and sufficient access to HIV rapid diagnostic tests, EID sample collection kits, DNA-PCR testing, ARV medications, and other PMTCT commodities is essential to ensuring the quality and reliability of privately provided PMTCT services. In many of the models discussed, especially those involving subsidized or publicly provided commodities under a PPP arrangement, the private PMTCT approach was vulnerable to the same breakdowns in supply chain and laboratory processing that often restrict the impact of public PMTCT initiatives. Private-sector activities in several countries mentioned in this brief experienced delayed access to PMTCT commodities, long PCR and CD4 test result turnaround, and stockouts of ARVs and other PMTCT-related medications. This shows that where private-sector facilities have been successfully engaged under PPP models, they often fall victim to the same challenges facing public-sector facilities that rely on donor commodities or centralized diagnostic processing. Private-sector efforts can be further complicated by mistrust between the sectors, and a lack of communication and reporting.

In situations where private-sector PMTCT providers are restricted from accessing publicly-procured PMTCT commodities, or where private-sector providers can privately procure PMTCT inputs but cannot recover their costs, private PMTCT activities often serve as de facto extensions of public services, and are vulnerable to the same challenges facing these services. Initiatives led and financed by the private sector can consider investing in DNA-PCR, viral load, and point-of-care CD4 technologies—both to benefit their own



services and to create public-private referral and contracting opportunities for laboratory services. Allowing the private sector additional maneuverability in procuring diagnostic and pharmaceutical inputs—perhaps by permitting private providers to commercially access PMTCT commodities during periods of government stockout or short supply—could support improved quality, reliability, reach, and impact of private PMTCT services.

Disease management agents such as AFA South Africa, and the coordinating bodies for franchised or networked private PMTCT providers, such as those highlighted in this brief, have demonstrated their ability to coordinate commodity procurement and laboratory processing for numerous private facilities simultaneously. Public-private engagement to re-explore private-sector PMTCT commodity procurement sources, determine allowable fee schedules for PMTCT, and strengthen laboratory processing platforms should be considered as governments seek to scale up private PMTCT services.

### **Sustainable financing remains challenging for private-sector PMTCT actors.**

Procuring sustainable financing is a challenge for many private and non-state PMTCT initiatives. The companies collaborating with AFA in South Africa and the Mopani Copper Mine in Zambia all demonstrate how private corporate revenue can sustain the delivery of PMTCT services in the long term as part of core business strategies. On the other hand, several of the private initiatives introduced in this brief describe how limited financing for private PMTCT services can significantly restrict the impact and scope of interventions. In particular, given that PMTCT is considered a free and fee-exempted service in many global settings, private PMTCT activities are often limited to cost recovery when delivering services, and may not have discretionary financial resources to implement activities for community engagement, retention, or support. When PPPs facilitate private access to financial or commodity-input subsidies, private efforts become vulnerable to the volatility of government financing, often becoming reliant on external donor funding.

While private commercial facilities that operate on revenue-driven health care models may be able to avoid some of these financial pitfalls, private providers are often dissuaded from providing PMTCT due to additional human resource and input costs that cannot be recouped. In addition, public health practitioners are increasingly aware that CHWs, the cornerstone of many private and public community-based PMTCT strategies, require sustained financing and formal employment, rather than having communities rely on volunteer-based or NGO-subsidized models over the long term. The example of the state-aided McCord Hospital (Box 9) highlights how reliance on government financing to deliver services free at the point of care can threaten the sustainability of private PMTCT and HIV efforts when that financing is jeopardized. The McCord Hospital example also demonstrates that even where commercial facilities may be able to recover the costs for PMTCT services, commercial models that rely on out-of-pocket payments from patients (as McCord Hospital did in the late 1990s) face severe financing and coverage challenges where patients do not have the economic ability to pay or where the penetration of insurance mechanisms is low. Even with private capital, such as in the case of Gertrude's Hospital Foundation in Kenya, financing a comprehensive PMTCT strategy is often a challenge.



## CONCLUSIONS

As governments and implementers look for innovative models to build and expand on national PMTCT activities, private actors have played a key role. In the future, the private sector could become partners in extending the reach of PMTCT and other HIV services. Potential private partners include a vast array of corporations and companies, commercial health facilities, and independent or networked providers. A diverse range of private nonprofit, faith-based, and civil society organizations have also historically played a critical role in many national HIV responses, working both independently and in partnership with governments. Examples of these and other private-sector PMTCT and ART initiatives are beginning to demonstrate how the private sector can be more fully engaged and incentivized to participate in advancing national HIV responses. The collective knowledge and implementation experience from such efforts can now help governments and implementers to advance the next phase of private-public collaboration in PMTCT, with an emphasis on fine-tuning mechanisms for long-term technical and financial sustainability. Finally, a rigorous evaluation of private-sector engagement, to assess the impact of the mechanism and to ensure evidence-based program design, is highly recommended.

All future private-sector PMTCT activities will need to address the persistent issue of loss to follow-up, as well as challenges in commodity procurement, sustainable financing, and other barriers outlined in this brief. Implementers can also capitalize on the lessons learned and programmatic considerations raised here to help address known challenges and design programs that take the private sector's unique technical and financial barriers into account. For instance, understanding the non-monetary incentives for private participation and how to use health financing mechanisms such as National Health Insurance Funds, micro-insurance, and government contracting to greater effect within PPPs could all help to shape the next generation of private PMTCT service delivery and financing activities.

All of the examples selected for inclusion in this brief demonstrate that private actors can play a significant role in advancing national and global PMTCT goals. Successful outcomes in many of the models included rapid introduction of private PMTCT services, enhanced access to and retention in PMTCT for mother-baby pairs, and strong community-based demand creation and retention activities that supported continuing provision of private care. In general, where projects or partnerships succeeded in combining the collective strengths and roles of government, private actors, and communities, mother-baby access to and retention in PMTCT interventions improved. Although challenges persist, and additional implementation experiences are needed to serve as examples, it is becoming increasingly clear that effective engagement of private actors will be critical to meeting eMTCT targets and achieving an AIDS-free generation.



## REFERENCES

- AFA (Aid for AIDS). 2010. "Employer—Clinical Care." Accessed March 22, 2016. [http://www.aidforaids.co.za/employer\\_clinical\\_care.php](http://www.aidforaids.co.za/employer_clinical_care.php).
- AVERT (Averting HIV and AIDS). 2014. "HIV Prevention: Preventing Mother-to-Child Transmission of HIV." Accessed March 22, 2016. <http://www.avert.org/prevention-mother-child-transmission-pmtct-hiv.htm>.
- Barnes, Jeff, Barbara O'Hanlon, Frank Feeley, Kimberly McKeon, Nelson Gitonga, and Caytie Decker. 2009. *Kenya Private Health Sector Assessment*. SHOPS Project. Bethesda, MD: Abt Associates Inc.
- ChartsBin. 2011. "Global Distribution of Nurse/Midwife per 10,000 Population." Accessed March 22, 2016. <http://chartsbin.com/view/7x0>.
- Chi, B.H., M.R. Adler, O. Bolu, D. Mbori-Ngacha, D.K. Ekouevi, A. Gieselman, T. Chipato, C. Luo, B.R. Phelps, C. McClure, L. Mofenson, and J.S. Stringer. 2012. "Progress, Challenges, and New Opportunities for the Prevention of Mother-to-Child Transmission of HIV under the U.S. President's Emergency Plan for AIDS Relief." *Journal of Acquired Immune Deficiency Syndromes* 60:S78–S87.
- Chikopa, A. 2006. "Malawi Business Coalition Against HIV/AIDS Profile." Geneva, Switzerland: World Economic Forum.
- Cheelo, Ronny. 2016. Personal communication. Mopani Hospital.
- Ciampa, Philip, Janeen Burlison, Meridith Blevins, Mohsin Sidat, Troy Moon, Russell Rothman, and Sten Vermund. 2011. "Improving Retention in the Early Infant Diagnosis of HIV Program in Rural Mozambique by Better Service Integration." *Journal of Acquired Immune Deficiency Syndromes* 58(1):115–19.
- Dreesch, Norbert, Jennifer Nyoni, Ontlametse Mokopakgosi, Khumo Seipone, Jean Alfazema Kalilani, Owen Kaluwa, and Vincent Musowe. 2007. "Public-Private Options for Expanding Access to Human Resources for HIV/AIDS in Botswana." *Human Resources for Health* 5:25.
- ENews Africa. 2013. "End of the Road for McCord Hospital." Available at <https://www.enca.com/south-africa/end-road-mccord-hospital>. Accessed August 30, 2016.
- Ezeanolue, Echezona, Michael Obiefune, Chinenye Ezeanolue, John Ehiri, Alice Osuji, Amaka Ogidi, Aaron Hunt, Dina Patel, Wei Yang, Jennifer Pharr, and Gbenga Ogedegbe. 2015. "Effect of a Congregation-Based Intervention on Uptake of HIV Testing and Linkage to Care in Pregnant Women in Nigeria (Baby Shower): A Cluster Randomised Trial." *The Lancet Global Health*. 3(11):e692–700.
- Ferguson, L., J. Lewis, A. Grant, D. Watson-Jones, S. Vusha, J. Ong'ech, and D. Ross. 2012. "Patient Attrition Between Diagnosis with HIV in Pregnancy-Related Services and Long-Term HIV Care and Treatment Services in Kenya: A Retrospective Study." *Journal of Acquired Immune Deficiency Syndromes* 60(3):e90–e97.
- GBC Health. 2013. "Community Investment: Special Focus on AIDS, Tuberculosis or Malaria: Commended: Mopani Copper Mines PLC. 2013." *Business Action on Health Awards: Case Studies*. New York, NY: GBC Health.
- Geddes, R., S. Knight, S. Reid, J. Giddy, T. Esterhuizen, and C. Roberts. 2008. *Prevention of Mother-to-Child Transmission of HIV Programme: Low Vertical Transmission of KwaZulu-Natal, South Africa*. South Africa: Department of Public Health, School of Family and Public Health Medicine, University of KwaZulu-Natal.
- Gertrude's Hospital Foundation. 2015a. "Gertrude's Hospital Foundation." Available at <http://www.gertrudeshospitalfoundation.org>. Accessed August 26, 2016.
- Gertrude's Children's Hospital. 2015b. "Our History." Available at <http://www.gerties.org/about-us/brief-history.html>. Accessed August 26, 2016.



- Giddy, Janet. 2005. *HIV Care at McCord Hospital, Durban, South Africa*. Ann Arbor, MI: University of Michigan.
- Godfrey, Kasakya. 2014. *A Summary of Community PMTCT Projects Implemented by THETA Uganda*. Kampala, Uganda: THETA.
- Johnson, D., and X. Cheng. 2014. "The Role of Private Health Providers in HIV Testing: Analysis of Data from 18 Countries." *International Journal for Equity in Health* 13:36.
- Klaus, Kimberly, Julie Baldwin, Ricardo Izunrieta, Eknath Naik, Assefa Seme, Jaime Corvin, Abiy Hiruye Sinke, and Fikre Enquselassie. 2015. "Reducing PMTCT Attrition: Perspectives of HIV+ Women on the Prevention of Mother-to-Child HIV Services in Addis Ababa, Ethiopia." *Ethiopian Medical Journal* 53:2.
- Makhanya, Faith M. 2014. "The Follow-Up of Babies in the PMTCT Programme in the West Rand." WIRedSpace (Wits Institutional Repository on DSpace). Accessed March 22, 2016. <http://146.141.12.21/handle/10539/13649>.
- Mavuso, Zandile. 2012. "Copper Mine Initiatives Health Care Interventions." *Creamer Media's Mining Weekly*. Accessed March 22, 2016. <http://www.miningweekly.com/article/copper-mine-initiates-healthcareinterventions-2012-09-14>.
- MBCA (Malawi Business Coalition Against HIV and AIDS). 2014. *2013 MBCA Annual Report*. Lilongwe, Malawi: MBCA.
- mothers2mothers. n.d.a. "mothers2mothers Capability Statement." U.S. Department of Health & Human Services, Washington, DC: mothers2mothers.
- . n.d.b. "mothers2mothers Organizational Background." U.S. Department of Health & Human Services, Washington, DC: mothers2mothers.
- Okonji, E., S. Sandfolo, A. Myers, E. Scheepers, and K. Schmitz. 2014. *2013 Annual Evaluation of the Prevention of Mother-to-Child-Transmission (PMTCT) through Peer Education and Psychosocial Support Services in Kenya, Lesotho, Malawi, South Africa, Swaziland, and Uganda*. Capetown, South Africa: M2M Department of Programmes and Technical Support.
- PEPFAR (U.S. President's Emergency Plan for AIDS Relief). 2014. *PEPFAR 3.0 Controlling the Epidemic: Delivering on the Promise of an AIDS-free Generation*. Washington, DC: PEPFAR.
- Perez, F., T. Mukotekwa, A. Miller, J. Orne-Gilemann, M. Glenshaw, I. Chitsike, and F. Dabis. 2004. Implementing a Rural Programme of Prevention of Mother-to-Child Transmission of HIV in Zimbabwe: First 18 Months of Experience. *Tropical Medicine and International Health* 9 (7):774–83.
- Rasschaert, F., T. Decroo, D. Remartinez, B. Telfer, F. Lessitala, M. Biot, B. Candrinho, and W. Van Damme. 2014. "Sustainability of a Community-based Anti-retroviral Care Delivery Model: A Qualitative Research Study in Tete, Mozambique." *Journal of the International AIDS Society* 6(17):18910.
- Rawizza, Holly E., Charlotte A. Chang, Beth Chaplin, Isah A. Ahmed, Seema T. Meloni, Tinuade Oyeboode, Bolanle Banigbe, Atiene S. Sagay, Isaac F. Adewole, Prosper Okonkwo, Phyllis J. Kanki and APIN PEPFAR Team. 2015. "Loss to Follow-Up within the Prevention of Mother-to-Child Transmission Care Cascade in a Large ART Program in Nigeria." *Current HIV Research*. 13(3):201–9.
- Ron Levey, Ilana, Nelson Gitonga, Meaghan Smith, Dawn Crosby, Jasmine Baleva, Emily Sanders, and Alison Wakefield. 2011. *Malawi Private Health Sector Assessment*. Bethesda, MD: SHOPS Project, Abt Associates Inc.
- S4H (Social Franchising for Health). 2014. "About Social Franchises." Accessed March 22, 2016. <http://www.sf4health.org/about-social-franchises>.
- SAATHII. 2012a. "Andhra Pradesh-Public Private Partnership (AP-PPP) Program." Accessed March 22, 2016. <http://www.saathii.org/projects/ap-ppp>.



———. 2012b. "Private Sector Expansion for Prevention of Mother to Child Transmission." Accessed March 22, 2016. <http://www.saathii.org/projects/pmtct-egpaf>.

Sargent, J., J. Johnson, M. Majorowski, N. Friedman, and C. Blazer. 2009. *Private Sector Involvement in HIV Service Provision*. USAID's AIDSTAR-One Project, Task Order 1. Arlington, VA: USAID.

Shiferaw, Solomon, Mark Spigt, Merijin Godefrooij, Yilma Melkamu, and Michael Tekie. 2013. "Why Do Women Prefer Home Births In Ethiopia?" *BMC Pregnancy and Childbirth* 13:5. doi: 10.1186/1471-2393-13-5.

Sibanda, E.L., I.V. Weller, J.G. Hakim and F.M Cowan. 2013. "The Magnitude of Loss to Follow-Up of HIV-Exposed Infants Along the Prevention of Mother-to-Child HIV Transmission Continuum of Care: A Systematic Review and Meta-Analysis." *AIDS*. 13;27(17):2787–97.

Skowronska, Ewa. 2015. Personal interview with Senior Technical Advisor, mothers2mothers.

SHOPS Project (Strengthening Health Outcomes through the Private Sector Project). 2014a. *Botswana Private Health Sector Assessment: Brief*. Bethesda, MD: SHOPS Project, Abt Associates Inc.

———. 2014b. *Public-Private Partnership to Expand the Reach of Medical Laboratory Services*. Bethesda, MD: SHOPS Project, Abt Associates Inc.

Smith, Tamara. 2010. *Private Sector Options for Health Care: Desk Review*. USAID's AIDSTAR-One Project, Task Order 1. Arlington, VA: USAID.

Stevenson, M. and I. Ron Levey. 2014. *Financing Voluntary Medical Male Circumcision through Private Medical Aid Schemes in Namibia*. Bethesda, MD: SHOPS Project, Abt Associates Inc.

Tayag, Josef, James White, and Alejandra Mijares. 2014. *Extending the Reach: Contracting Out HIV Services to the Private Health Sector in Gauteng, South Africa*. Bethesda, MD: SHOPS Project, Abt Associates Inc.

Tweya, Hannock, Salem Gugsa, Mina Hosseinipour, Colin Speight, Wingston Ng'ambi, Mphatso Bokosi, Janet Chikonda, Annie Chauma, Patricia Khomani, Malocho Phoso, Tiwonge Mtande, and Sam Phiri. 2014. "Understanding Factors, Outcomes and Reasons for Loss to Follow-Up Among Women in Option B+ PMTCT Programme in Lilongwe, Malawi." *Tropical Medicine and International Health* 19(11):1360–66.

UNAIDS (Joint United Nations Programme on HIV/AIDS). 2011. *Global Plan towards the Elimination of New HIV Infections among Children by 2015 and Keeping Their Mothers Alive*. Geneva, Switzerland: UNAIDS.

———. 2014a. *2014 Progress Report on the Global Plan towards the Elimination of New HIV Infections among Children by 2015 and Keeping Their Mothers Alive*. Geneva, Switzerland: UNAIDS.

———. 2014b. *The Gap Report*. Geneva, Switzerland: UNAIDS.

UNICEF (United Nations Children's Fund). 2010. "Tanzania: Maternal and Child Health." United Kingdom: UNICEF. Accessed March 22, 2016. [http://www.unicef.org/tanzania/6906\\_10741.html](http://www.unicef.org/tanzania/6906_10741.html).

U.S. Department of State. 2014. "U.S. Relations with Mozambique." Washington, DC: Bureau of African Affairs. Accessed March 22, 2016. <http://www.state.gov/r/pa/ei/bgn/7035.htm>.

Wanyu, Benjamin, Emmanuel Diom, Patricia Mitchell, Pius M. Tih, and Dorothy J. Meyer. 2010. "Birth Attendants Trained in 'Prevention of Mother-to-Child HIV Transmission' Provide Care in Rural Cameroon, Africa." *Journal of Midwifery and Women's Health* 54(4):334–41.

White, James, Aneesa Arur, Aisha Talib, and Angela Stene. 2014. *Engaging Private Providers in HIV Care and Treatment: Lessons from the BroadReach Down Referral Model in North West Province, South Africa*. Bethesda, MD: SHOPS Project, Abt Associates Inc.



White, James, Barbara O'Hanlon, Grace Chee, Emmanuel Malangalila, Adeline Kimambo, Jorge Coarasa, Sean Callahan, Ilana Ron Levey, and Kim McKeon. 2013. *Tanzania Private Sector Assessment*. Bethesda, MD: SHOPS Project, Abt Associates Inc.

WHO (World Health Organization). 2013. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach*. Geneva, Switzerland: WHO.

———. 2014. *Health Workforce 2030: A Global Strategy on Human Resources for Health*. Geneva, Switzerland: WHO. Accessed March 22, 2016. [http://www.who.int/workforcealliance/knowledge/resources/strategy\\_brochure9-20-14.pdf?ua=1](http://www.who.int/workforcealliance/knowledge/resources/strategy_brochure9-20-14.pdf?ua=1).

———. 2015a. *Guidelines on When to Start Antiretroviral Therapy and on Pre-Exposure Prophylaxis for HIV*. Geneva, World Health Organization. Accessed March 31, 2016. <http://www.who.int/hiv/pub/guidelines/earlyrelease-arv/en>.

———. 2015b. *Global Health Sector Response to HIV, 2000-2015: Focus on Innovations in Africa*. Geneva, Switzerland: WHO. Accessed April 11, 2016. <http://www.who.int/hiv/pub/progressreports/2015-progress-report/en>.

———. 2015c. *Global Strategy on Human Resources for Health: Workforce 2030*. Draft 1.0 submitted to the Executive Board. Geneva, Switzerland: WHO. Accessed April 11, 2016. [http://www.who.int/hrh/resources/pub\\_globstrathrh-2030/en](http://www.who.int/hrh/resources/pub_globstrathrh-2030/en).

———. 2015d. "Health Workforce: Density of Physicians." Geneva, Switzerland: WHO. Accessed March 22, 2016. [http://gamapserver.who.int/gho/interactive\\_charts/health\\_workforce/PhysiciansDensity\\_Total/atlas.html](http://gamapserver.who.int/gho/interactive_charts/health_workforce/PhysiciansDensity_Total/atlas.html).

Zikusooka, C.M., D. Kibuuka-Musoke, J.B. Bwanika, D. Akena, B. Kwesiga, C. Abewe, A. Watsemba, and A. Nakitende. 2014. *External Evaluation of the M2M Mentor Mother Model as Implemented Under the STAR-EC Program in Uganda*. Cape Town, South Africa: Department of Programmes and Technical Support, mothers2mothers.



## ABOUT AIDSFREE

The Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project is a five-year cooperative agreement funded by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID) under Cooperative Agreement AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, the International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. AIDSFree supports and advances implementation of PEPFAR by providing capacity development and technical support to USAID missions, host-country governments, and HIV implementers at the local, regional, and national level. The contents are the responsibility of AIDSFree and do not necessarily reflect the views of PEPFAR, USAID, or the U.S. Government.



**JSI Research & Training Institute, Inc.**

1616 Fort Myer Drive, 16<sup>th</sup> Floor

Arlington, VA 22209

Tel: 703-528-7474

Email: [info@aids-free.org](mailto:info@aids-free.org)

Web: [aidsfree.usaid.gov](http://aidsfree.usaid.gov)

