

SHORT REPORT

ENHANCING PMTCT PROGRAMMES THROUGH PSYCHOSOCIAL SUPPORT AND EMPOWERMENT OF WOMEN: THE MOTHERS2MOTHERS MODEL OF CARE

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In 2006, more than half a million children were newly infected with HIV, most from mother-to-child transmission (MTCT) in resource-limited countries.¹ The global figures are staggering: every day, 1 400 children under the age of 15 die from AIDS-related illnesses.² Of the 2.3 million children currently infected with HIV, most will die without treatment within the first 5 years of life – more than half before the age of 2.³ Even children not infected with HIV are affected by the epidemic: 15 million children have lost one or both parents to AIDS, and these children are more likely to experience poverty, homelessness and early death.¹

PMTCT INTERVENTIONS

Without medical interventions, the risk of an HIV-positive mother transmitting the virus to her infant *in utero*, during delivery or through breastfeeding ranges from 25% to 48%.⁴ Most peripartum transmissions occur late in pregnancy and during labour; roughly half in the days prior to delivery and 30% during active labour.^{5,6} Advanced maternal HIV disease (low CD4 cell count and high serum HIV viral load), HIV virus in genital fluid close to the time of birth, male sex of the infant and some types of genetically mediated immune responses in both mothers and children are all associated with increased risk of vertical transmission.⁷

After delivery, the risk of transmission further increases with breastfeeding, which is responsible for up to 40% of all infant infections.⁶ There has been considerable debate about the safest and most appropriate infant feeding method to promote HIV-free survival. In settings where replacement feeding does not meet the World Health Organization (WHO)'s AFASS (affordable, feasible, accessible, safe and sustainable) criteria, exclusive breastfeeding is recommended for the first 6 months of life. Infants exposed to mixed feeding (breastmilk in combination with formula or other solids) face a considerably higher risk of HIV acquisition than those who receive only breastmilk; transmission risk is as much as 11 times greater among mixed-fed infants.⁸

Antiretroviral (ARV) medications for preventing mother-to-child transmission (PMTCT) can dramatically reduce the likelihood of an infant becoming infected with HIV during gestation and delivery. With the introduction of highly active antiretroviral (HAART) regimens during pregnancy and labour, vertical transmission of HIV has been largely eliminated in resource-rich settings such as the USA and

Western Europe.⁹ However, MTCT of HIV remains the predominant source of infection in children in resource-limited countries, particularly in sub-Saharan Africa, where this mode of transmission accounts for 90% of paediatric infections and up to 15% of new HIV infections worldwide each year.¹

For resource-limited settings that lack the capacity to provide HAART to either all pregnant women or women who meet criteria to begin ARV treatment, the WHO recommends less complex PMTCT regimens.¹⁰ A single dose of nevirapine (NVP) to the mother at the onset of labour, and a dose of NVP to the baby after delivery, can reduce transmission rates to 13% at 14 - 16 weeks.¹¹ Zidovudine (ZDV) from 28 weeks' gestation, with a single dose of NVP to the mother at delivery and ZDV and NVP to the infant after birth, can reduce transmission in non-breastfeeding populations to 2%.¹²

CHALLENGES TO PMTCT

The efficacy of PMTCT programmes depends on the capacity of the health care system to deliver services, and the willingness of women to accept HIV testing and their ability to follow through with PMTCT interventions. Essential elements of PMTCT programmes include testing all pregnant women for HIV, CD4 tests to identify those eligible for HAART, and ensuring that all women have the necessary drugs for PMTCT, including those who deliver at home. After delivery, PMTCT services must include sustained education and support for safer infant feeding options, co-trimoxazole prophylaxis for HIV-positive or exposed newborns, HIV testing for infants, family planning, counselling, and referrals to HIV care and treatment programmes. PMTCT efforts that effectively engage women during pregnancy offer opportunities to help mothers to protect their infants from HIV infection and can provide the health- and life-sustain-

ing care for mothers that is critical for their own survival and their children's wellbeing.

Despite efforts to increase access to even the simplest ARV regimens, there are significant barriers in resource-limited settings to implementing effective public health PMTCT programmes. In low- and middle-income countries, less than 10% of women needing PMTCT services received them in 2006.¹ While coverage is improving as national governments in many countries strive to implement PMTCT programmes, these continue to face obstacles from inadequate health care infrastructure including weak linkages between PMTCT services and HIV treatment programmes, overextended staff in health facilities, and lack of stock of HIV test kits and ARVs. Along with health system challenges, there are significant social barriers (including stigma) that prevent women from accepting HIV testing and treatment, as well as the common practice of mixed infant feeding which contributes to poorer outcomes for babies.

Nurses and lay counsellors in understaffed and overburdened health care facilities often lack the time, training and resources to fully educate clients about critical aspects of PMTCT. Standard care in low-resource settings (often just one session of counselling with recently diagnosed HIV-positive pregnant women) is insufficient to provide the support a woman needs to seek appropriate care to ensure her health and that of her child. Issues such as the importance of disclosing HIV status, selecting and adhering to a safer method of infant feeding, practising family planning, and the importance of testing exposed infants for HIV, are often not adequately covered.

ENHANCING AND SUPPORTING PMTCT INTERVENTIONS

Successful efforts require that pregnant women receive education and support to understand the spectrum of PMTCT interventions. Comprehensive facility- and community-based education and psychosocial support projects can increase awareness and acceptance of these services. mothers2mothers (m2m), a programme designed to improve PMTCT care and outcomes, has developed a unique service model, delivered in health care facilities and communities, that is cost-effective, easily replicable and scalable, and adaptable to serve diverse cultures and communities. m2m

enhances and supports PMTCT programmes by employing HIV-positive mothers to join the health care team. These women, known as Mentor Mothers, provide comprehensive peer education and psychosocial support to pregnant women and new mothers, aimed at increasing the uptake of PMTCT services to reduce HIV MTCT, empower women and destigmatise HIV/AIDS.

m2m's Mentor Mothers are HIV-positive mothers who have recently completed the PMTCT process at the facilities where they work. m2m has developed a training curriculum for Mentor Mothers that covers basic HIV/AIDS facts, PMTCT, disclosure, safer infant feeding, ARVs and HAART, safer sex, family planning, nutrition and other topics that help HIV-positive women to reduce transmission risk and improve their and their children's health. Mentor Mothers also learn how to incorporate their own experiences into the educational and informational sessions that they give to m2m clients. As fellow mothers living with HIV/AIDS and trained as PMTCT experts, Mentor Mothers guide HIV-positive pregnant women and new mothers through PMTCT care and assist with the post-delivery transition to ongoing HIV care and treatment programmes.

The m2m programme is designed to complement and enhance PMTCT services delivered in publicly funded clinics. Mentor Mothers are paid professional staff and essential members of a facility's health care team whose sole focus is to educate and support pregnant women and new mothers living with HIV/AIDS. Through daily educational health talks in clinic waiting rooms, Mentor Mothers encourage all pregnant women attending antenatal care (ANC) to undergo HIV testing. In facilities with delivery and other inpatient wards, Mentor Mothers visit pregnant and newly delivered mothers in the wards to support them in the HIV test process. Pregnant women who test positive for HIV are referred to m2m by clinic staff for one-on-one sessions and to attend support groups. These activities take place in the m2m-designated space within the clinic which offers women an inviting place where they can sit, talk, receive a meal and share the challenges they face as HIV-positive mothers.

The education that Mentor Mothers provide to HIV-positive pregnant women is aimed at assisting them to accept and access PMTCT services (Fig. 1). Mentors help pregnant



The m2m logo on the front door at the Lesotho site.

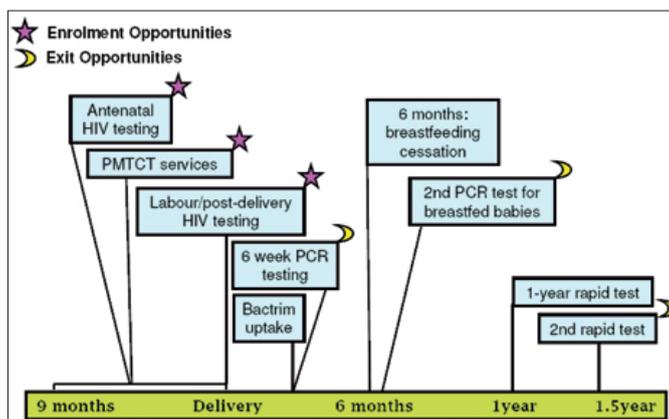


Fig. 1. mothers2mothers client service timeline for enrolment and exit opportunities.

women who have tested positive to understand their diagnosis by providing basic information on HIV and explain what steps a mother can take to reduce the risk of transmitting the virus to her baby. As part of this education, Mentor Mothers stress the importance of CD4 count testing during pregnancy and starting HAART, if eligible. Pregnant women are educated about exclusive infant feeding options and assisted to formulate a plan for maintaining their chosen feeding method. Mentor Mothers also help pregnant women with disclosure to partners and family members.

After delivery, m2m continues to engage new mothers with ongoing support and education on safer infant feeding and other important post-delivery PMTCT actions. Mentor Mothers encourage women to bring babies back for HIV testing and to receive co-trimoxazole prophylaxis. Recognising that mothers are frequently lost to care after delivery, m2m assists women to enrol in HIV care and treatment programmes. Educational sessions are also given to new mothers on safer sex and family planning, as well as nutrition and how to live positively – all essential for a mother's health. By example and by providing emotional support, Mentor Mothers encourage HIV-positive women to adopt an attitude of hope and equip them with the information they need to lead healthier lives.

SUCCESS SO FAR

By the end of 2007, m2m had become an integral component of PMTCT care at 155 facilities in South Africa and Lesotho, and employed more than 600 HIV-positive women. In that year, m2m had more than 300 000 patient encounters and is at present achieving more than 45 000 client contacts per month. The organisation has further expanded this year to provide services in Kenya, Rwanda and Zambia, and will open sites in Swaziland and Malawi before the year



The m2m site at Lebohang clinic in Mpumalanga.

is out. The average cost of m2m services is approximately \$US30 per patient.

An independent evaluation of m2m conducted by the Population Council's Horizons Program in 2005 - 2006 found that m2m had a significant impact on critical components of PMTCT services.¹³ The cross-sectional study of self-reported PMTCT knowledge, behaviours and attitudes among HIV-positive women at three facilities offering m2m services in KwaZulu-Natal showed extensive coverage by the m2m programme, with more than 60% of women surveyed having heard of it. In addition, Mentor Mothers had significant interactions (defined as two or more contacts) with nearly half of all the HIV-positive women attending antenatal care. Postpartum women at the study sites had on average six visits with m2m Mentor Mothers over the course of pregnancy and after delivery.

The study showed that women who received m2m services were significantly more likely to have: taken NVP and given their infants NVP for PMTCT; disclosed their HIV status to a partner or other person during their pregnancy; received and recalled the results of their CD4 test; and selected an

TABLE I. SELECTED RESULTS FROM THE HORIZONS EVALUATION: BIVARIATE ANALYSIS RESULTS FOR POSTPARTUM WOMEN (4 - 12 WEEKS AFTER DELIVERY)

	No m2m participation	m2m participants
PMTCT knowledge		
Knowledge that HIV+ mothers can infect baby during breastfeeding	72%	82%
Disclosure		
Disclosure to at least 1 person	85%	97% [†]
Nevirapine prophylaxis		
Provided with a drug for PMTCT	86%	95% [*]
Drug taken by woman	83%	93% [†]
Baby given NVP within 3 days	78%	88%
Infant feeding practice		
Decided on feeding method before delivery	71%	87% [†]
Infant formula feeding, no breast milk	61%	78% [†]
Exclusive breastfeeding	15%	11% [†]
Exclusive method of feeding (total of above)	76%	89% [†]
Family planning		
Using contraception	58%	70% [*]
Referral for care		
Had a CD4 test during pregnancy	57%	79% [†]
Knew CD4 count	72%	88% [†]

* Significant at $p < 0.05$ significance level.

† Significant at $p < 0.01$ significance level.





m2m counselling provides education and emotional support for HIV-positive pregnant women and new mothers.

exclusive infant feeding method while pregnant (Table I). Among postpartum women who received m2m services, 89% chose an exclusive feeding method. In multivariate regression analysis, when controlling for other factors, postpartum women who received m2m services were 2.4 times more likely to report exclusive formula feeding than non-participants ($p < 0.05$).¹³ m2m participants were also significantly more likely than those who had not joined m2m groups to be using contraception at 4 - 12 weeks after delivery. m2m participants reported feeling less alone in the world and less overwhelmed by problems than women who did not attend the programme.

LOOKING FORWARD

Preventing paediatric HIV infections and sustaining the health of mothers are critical components in stopping the spread of HIV and curtailing the epidemic's destruction of lives, families and communities. Long-term care for mothers infected with HIV is essential for sustaining their health and for the welfare of their children. Educating expectant and new mothers about PMTCT and HIV and empowering

women through support services are key components of keeping mothers healthy, hopeful and alive for the raising of their children. The m2m programme enhances and improves PMTCT services. Its ultimate goal is to improve the quality of life of those infected with, and affected by, HIV. The m2m model of peer education and support for HIV-positive women throughout pregnancy and after delivery should be incorporated into all PMTCT programmes.

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