Prevention of Mother-to-Child Transmission

Mother-to-child HIV transmission (MTCT) accounts for the vast majority of the more than 700,000 estimated new HIV infections in children worldwide annually. Without intervention, HIV-infected mothers have a 35 percent overall risk of transmitting HIV to their child during pregnancy, delivery and breastfeeding. More than 50 percent of global perinatal infections occur in the 15 focus countries of the U.S. President’s Emergency Plan for AIDS Relief’s (PEPFAR). In these countries, approximately 1.25 million of the 18 million women who deliver annually are HIV-positive.

The Power of Partnerships:

- Through March 31, 2008, PEPFAR has supported prevention of mother-to-child HIV transmission services for women during nearly 12.7 million pregnancies.
- Through March 31, 2008, PEPFAR has supported antiretroviral prophylaxis for women in more than 1 million pregnancies, preventing an estimated 194,000 infant HIV infections.
- In fiscal year 2007, PEPFAR supported approximately 6,411 service outlets for prevention of mother-to-child HIV transmission.

Comprehensive prevention of mother-to-child transmission (PMTCT) programs have nearly eliminated MTCT in developed countries. However, in resource-limited settings, progress implementing similar prevention programs has been slow. Only nine percent of all HIV positive pregnant women are benefiting from such services in these countries. Building upon the original goal of the President’s Mother-Child HIV Initiative, PEPFAR aims to support at least 80 percent of pregnant women with PMTCT services, and reduce MTCT by 40 percent in each of PEPFAR’s 15 focus countries.

Simple, effective PMTCT interventions include the provision of:

- Routinely recommended rapid HIV counseling and testing in antenatal and maternity settings;
- Combination short-course antiretroviral (ARV) prophylaxis for mother and infant and antiretroviral treatment (ART) for eligible mothers;
- Counseling and support for infant feeding;
- Link with wraparound services, such as nutrition, family planning services for women with HIV, and microeconomic activities; and
- Strong links to care, treatment and support services.

Clinical trials have demonstrated that ARV prophylaxis can reduce the risk of MTCT by approximately 75 percent. PEPFAR supports important new opportunities to expand PMTCT services and integrate them into maternal-child health programs. A key emphasis of PEPFAR’s PMTCT programs is to strengthen referral links to family-centered ART and care programs, so that eligible HIV-infected mothers, fathers and children can access life-saving therapy together. PEPFAR also has created opportunities to link PMTCT with other program areas, such as palliative care, orphans and vulnerable children, and related initiatives such as the President’s Malaria Initiative.
PEPFAR at Work

PEPFAR supports the national scale-up of PMTCT programs by supporting host countries in developing national PMTCT policies, strategies and program plans; providing training, infrastructure support, and assistance for monitoring and evaluation activities; developing key reference PMTCT tools for program implementation and country adaptation; and collaborating with multilateral partners, including WHO and UNICEF.

The following examples illustrate how PEPFAR is working in partnership with host nations to support PMTCT programs:

- **In Botswana**, where approximately 14,000 HIV-infected women give birth annually, the country has achieved national PMTCT scale-up. PEPFAR has supported Botswana’s leadership in increasing the number of pregnant women being tested for HIV, from 49 percent in 2002 to 92 percent in 2005, using the “opt-out” testing strategy. To date, the national PMTCT program has achieved a reduction in infant infections of approximately 80 percent.

- **In Kenya**, rapid expansion has allowed PMTCT services to reach all eight provinces. The number of sites providing PMTCT increased from 250 in 2004 to 1,084 by mid 2006. During fiscal year 2006, PEPFAR supported HIV counseling and testing for 549,500 pregnant women — about half of all women delivering in Kenya.

- **In Namibia**, PMTCT services started in 2002 at two hospitals. With PEPFAR support, 175 community counselors have been trained to provide counseling and perform HIV rapid testing. More than half of all health facilities offer PMTCT services, and the program is closely linked with HIV care and treatment.

- **In Ethiopia**, PEPFAR is supporting comprehensive, coordinated PMTCT and HIV care and treatment services. Ethiopia has modified its national PMTCT guidelines, including: recommending routine, provider-initiated “opt-out” testing; screening all HIV-positive women for treatment; and providing HIV-positive women prophylaxis and, when appropriate, treatment at facilities with capacity. These efforts are expected to substantially improve the impact of Ethiopia’s PMTCT interventions.

- **Botswana, Rwanda, South Africa, Uganda, Namibia, Zambia, Kenya, Cameroon, Mozambique, Ethiopia, Cote d’Ivoire, Nigeria, Malawi and China** are establishing the infrastructure to enable polymerase chain reaction (PCR)-based technology to learn the HIV status of children under two years of age. With PEPFAR support, countries are developing networks of public health laboratories and health care facilities that can use dried blood spots to make accurate diagnosis and management of pediatric ART more widely available for children.

- **In Nigeria and other focus countries**, PEPFAR has supported the development of national PMTCT guidelines, a standardized training curriculum, scale-up plans, and effective program monitoring. PEPFAR also supports PMTCT services in tertiary, secondary and primary facilities. With PEPFAR support, Nigeria is taking a lead role in implementing a successful, national PMTCT monitoring and information system.

**Resources:**

- Prevention of Mother-to-Child Transmission of HIV (PMTCT) Generic Training Package is a comprehensive, evidence-based training course easily adaptable to include country-specific policies and guidelines to support the scale-up of PMTCT services. Available at: [www.cdc.gov/nchstp/od/gap/pmtct](http://www.cdc.gov/nchstp/od/gap/pmtct)

- Testing and Counseling for PMTCT Support Tools provide educational materials, job aids, and training resources in resource-constrained settings to facilitate the delivery of essential PMTCT interventions. Available at: [www.womenschildrenhiv.org/wchiv?page=vc-10-00](http://www.womenschildrenhiv.org/wchiv?page=vc-10-00)

- PMTCT Monitoring System (PMTCT-MS) is a reference system designed to facilitate development and implementation of national systems to monitor and improve PMTCT programs and services. Available at: [www.cdc.gov/nchstp/od/gap/PMTCT-MS.htm](http://www.cdc.gov/nchstp/od/gap/PMTCT-MS.htm)

- Early Infant Diagnosis Training Package, developed by the PEPFAR Laboratory and PMTCT/ Pediatric HIV Technical Working Groups, contains guidelines, video and training materials to support early infant diagnosis and will be available soon.