photo: Jon Hrusa

Prevention of Mother-to-Child Transmission

Of the 34 million people globally living with HIV in 2010, 3.4 million were children. In 2010 alone, 390,000 children were newly infected with HIV. In fact, more than 1,000 children become infected with HIV every day, representing one in seven new infections globally (World Health Organization [WHO], *Global HIV/AIDS Response*, 2011). Yet despite these alarming statistics, the majority of pediatric infections are preventable.

How do children become infected with HIV?

More than 90 percent of HIV infections in children result from mother-to-child transmission, in which the virus is passed from a mother living with HIV to her baby during pregnancy, childbirth, or breastfeeding. While the precise mechanisms for viral transmission during pregnancy are not fully understood, the risk of this form of transmission increases in direct relation to the severity of the mother's HIV infection.

How can HIV infection in children be prevented?

Currently available approaches to preventing HIV infections in infants can reduce the risk of mother-to-child virus transmission to less than two percent. The most effective method for preventing mother-to-child HIV transmission is by initiating lifelong antiretroviral therapy (ART) as early as possible in treatment-eligible HIV-positive pregnant women. If a woman is not eligible for ART or if ART is not available, a shorter, simplified course of antiretroviral drugs (ARVs) can be given to the mother, starting early in pregnancy, and to her infant immediately following delivery. Extending the course of ARVs through the breastfeeding period, in locations where breastfeeding is important to the survival of the infant, also decreases the likelihood of HIV transmission via breast milk. Proven highly effective at preventing HIV transmission from mother to child, ARVs decrease the amount of virus in the mother's bloodstream (i.e., viral load), thus reducing the risk that she will transmit the infection to her infant. These drugs also have a protective effect on the child before and after birth, helping to resist HIV infection.

According to PEPFAR, the use of ARVs has averted an estimated 350,000 new HIV infections in children over the past 16 years, the vast majority since 2005. Yet only 48 percent of HIV-positive pregnant women worldwide are receiving this critical intervention. This results in hundreds of thousands of new infections in children every year—infections that could easily be prevented with access to the appropriate drugs (WHO, 2011).

What services to prevent mother-to-child HIV transmission are provided through Foundation-supported programs?

The Foundation is committed to delivering a comprehensive set of interventions to prevent mother-to-child transmission in the 15 countries where we work. Specific interventions implemented by Foundation-supported programs include:

- HIV testing and health assessment for pregnant women: We ensure that more pregnant women promptly receive the treatments they need by improving the availability of HIV testing and counseling in pregnancy, as well as CD4 testing to determine their treatment eligibility and to assess their overall health status.

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- Family planning services for all women: Through counseling programs and condom distribution, we work to prevent new HIV infections in HIV-negative women, so that if they become pregnant, their babies will be born free of HIV. The Foundation also provides these family planning services to HIV-positive women, helping them to avoid unintended pregnancies.
- High-quality treatment and prevention regimens for pregnant women living with HIV: In accordance with the World Health Organization's 2009 recommendations for ART for HIV-positive individuals, the Foundation supports:
    - treating HIV-positive pregnant women earlier in the course of infection to reduce the risk of maternal death and disease and of mother-to-child transmission;
    - enhancing services for HIV-positive pregnant women not receiving ART to help prevent the transmission of HIV to their infants; and
    - administering ARVs to HIV-exposed infants following delivery to offer them greater protection against HIV infection, particularly during the breastfeeding period.
- Infant feeding support for HIV-positive mothers. In resource-limited settings, an infant who is fed with formula or with breast milk substitutes often faces greater health risks than an infant who is exclusively breastfed by an HIV-positive mother. By providing counseling and support on infant and young child feeding to mothers with HIV, the Foundation aims to prevent mother-to-child transmission caused by breastfeeding and to promote the healthy, HIV-free survival of all children born to HIV-positive mothers.

How is the Elizabeth Glaser Pediatric AIDS Foundation working to eliminate pediatric HIV and AIDS?

For 20 years, the Foundation has led the way in the fight to prevent pediatric HIV infection, eliminate pediatric AIDS, and create a generation free of HIV. The Foundation supports the early identification of HIV-positive pregnant women and the initiation of ART in all treatment-eligible pregnant women and children. The Foundation also advocates for expanded access to appropriate HIV care and treatment for non-treatment-eligible pregnant women living with HIV and for HIV-exposed infants, as well as to infant and young child feeding strategies that promote the long-term HIV-free survival of infants born to HIV-positive mothers.

The Foundation works in partnership with national ministries of health and a range of other partners to provide localized responses to the spread of HIV in more than 5,400 sites around the world. Our program implementation, research, and advocacy activities are helping to eliminate HIV infection in infants and children; increase access to comprehensive, high-quality, and well-integrated services to prevent mother-to-child HIV transmission; and provide care and treatment for HIV-positive pregnant children, women, and families.

By December 31, 2011, Foundation-supported programs had:

- Provided more than 14.2 million women with services to prevent transmission of HIV to their babies;
- Tested nearly 12.4 million women for HIV through our programs;
- Enrolled more than 1.6 million individuals, including more than 125,000 children under the age of 15, into Foundation-supported care and treatment programs; and
- Started more than 850,000 individuals on antiretroviral treatment, including nearly 70,000 children under the age of 15.

To find out more about the Foundation's work to eliminate pediatric AIDS, visit www.pedaids.org.

Elizabeth Glaser acquired HIV through a blood transfusion and unknowingly passed the virus on to her daughter, Ariel, and her son, Jake. Following Ariel's death in 1988, Elizabeth joined with two close friends with one goal: to bring hope to children and families affected by HIV and AIDS. The Foundation that now bears Elizabeth Glaser's name has become a global leader in the effort to eliminate pediatric AIDS, working in 15 countries and at more than 5,400 sites around the world to prevent the transmission of HIV to children and help those already infected with the virus. The Foundation's global mission is to implement prevention, care, and treatment; further advance innovative research; and give those affected by HIV and AIDS a voice to bring dramatic change to the lives of millions of children, women, and families worldwide.