

# MOTHER TO CHILD TRANSMISSION OF HIV THROUGH BREASTFEEDING

**When a mother is HIV-positive, what are the risks of her transmitting the virus to her infant through breastfeeding? What would be the best scenario of intervention to lower this infection risk? Is there a special timing?**

To answer these questions, researchers in the ZVITAMBO\* program enrolled more than 14,000 post-partum women and their children to examine the transmission of HIV through breastfeeding among women who seroconverted (i.e. who developed in their blood detectable antibodies directed against HIV) at different times (before and after birth).

Surprisingly, researchers found that during the first year of life, infants born to mothers who were HIV-negative at delivery but who subsequently seroconverted had an infection rate through breastfeeding that was about

three times greater than the rate for infants born to HIV-positive mothers (23.6% vs 8.5% respectively), indicating a high rate of HIV transmission during maternal primary infection. Among the women who seroconverted after delivery and who had a short seroconversion interval, 62% transmitted HIV to their infants in the first three months after infection; approximately eight times the rate for baseline positive women. What is worrying is that many such mothers will test negative for HIV when tested with an antibody-based test, as the window period\*\* for diagnostic tests can be several weeks long.

*“Currently, there is a large global effort to develop point-of-care tests for HIV and other developing world pathogens,” notes Dr. Brian J. Ward, professor of infectious diseases at McGill University in Montreal and a co-author of the study. “At the moment, several rapid tests are in use in different countries. Others are rapidly approaching various markets. However, there is no ideal test in any market yet.” Unfortunately, it is unlikely that any of these point-of-care tests will be able to identify breastfeeding women who are newly infected by HIV.*

As a result, the prevention of primary infection in pregnant and breastfeeding women will continue to be critically important to reducing the rate of infant HIV infection. 🦋

BY BLANDINE JARDON

\*ZVITAMBO: Zimbabwe Vitamin A for Mothers and Babies Project.

\*\*Window period: the time from infection until a test can detect any change.

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## BULLETIN

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