New Approaches Needed to Prolong Breastfeeding While Reducing HIV Transmission

Breastfeeding Plays Critical Role in Preventing Gastroenteritis in African Infants, Report Studies in JAIDS

Philadelphia (13 January 2009) – For African infants with HIV-positive mothers, reducing exposure to breast milk can lower the rate of HIV transmission. But new research suggests that longer periods of breastfeeding—at least 6 months—are critical for reducing the risk of potentially fatal gastroenteritis. The findings are reported in the January 1, 2010, issue of JAIDS: Journal of Acquired Immune Deficiency Syndromes. JAIDS is published by Lippincott Williams & Wilkins, a part of Wolters Kluwer Health, a leading provider of information and business intelligence for students, professionals, and institutions in medicine, nursing, allied health, and pharmacy.

Four new studies highlight the need for anti-HIV medications and other strategies to make breastfeeding the preferred method of lowering the risk of gastroenteritis and other serious infections in infants, while at the same time reducing transmission of HIV. “Highly active antiretroviral therapy (HAART) therapy protects the mother from AIDS and the child from HIV infection while the mother is breastfeeding,” comments Dr. William A. Blattner, Editor-in-Chief of the Epidemiology section of JAIDS. “Encouraging expansion of HAART therapy during the entire period of breastfeeding until it is safe to stop offers a promising and feasible strategy for reducing HIV transmission while simultaneously lowering the risk of potentially fatal gastroenteritis.”

Stopping Breastfeeding Early Increases Gastroenteritis
Gastroenteritis is a major contributor to infant mortality in resource-poor countries, with death resulting from severe diarrhea and/or vomiting. All four new studies linked longer periods of breastfeeding to a lower risk of severe and/or fatal gastroenteritis.

A study led by Dr. Carolyne Onyango-Makumbi of Makerere University, Uganda, compared the risk of gastroenteritis in two groups of infants of HIV-positive mothers. As part of research studies to reduce HIV transmission, one group of mothers stopped breastfeeding early—after a median (midpoint) of 4 months. The other group continued breastfeeding for a median of 9 months. Infants who stopped breastfeeding were at higher risk of developing serious gastroenteritis—more than twice as high as infants who continued breastfeeding.

In a similar study, Dr. George Kafufula of University of Malawi and colleagues also found a higher rate of severe gastroenteritis (requiring hospitalization) in infants who stopped breastfeeding early. They also showed a significant difference in risk of death from gastroenteritis: twice as high in infants who were breastfed for less than 6 months.

HAART Decreases HIV Transmission, but Gastroenteritis Risk Remains High
Another study from Uganda—led by Dr. Jaco Homsy of University of California San Francisco—found that highly active antiretroviral therapy (HAART) was highly effective in preventing HIV transmission from HIV-positive mothers to their infants. Nevertheless, infant mortality remained high, with most deaths related to severe diarrhea and/or vomiting. Continued breastfeeding was the only factor that reduced the risk of death: infants who stopped breastfeeding early were six times more likely to die than those who continued breastfeeding for at least 6 months.
Finally, Dr. Tracy L. Creek of the Centers for Disease Control and Prevention led a study in Botswana: a country with a high rate of maternal HIV infection and a low rate of breastfeeding. They found that 88 percent of infants hospitalized during an outbreak of severe diarrhea were not breastfeeding, while 18 percent were HIV-positive. Many of the children who died had severe malnutrition—often related to inadequate supplies of formula. In contrast, only one breastfeeding infant died. “Breastfeeding is critical to infant survival in the developing world,” Dr. Creek and co-authors write.

Breastfeeding can transmit HIV from infected mothers to their infants—in developed countries, HIV-positive mothers are generally advised not to breast-feed. Approaches that reduce exposure to breast milk are also being considered to reduce mother-to-infant transmission of HIV in resource-poor countries in Africa and elsewhere. However, breastfeeding also plays a critical role in strengthening the infant's immune system.

The studies draw attention to a difficult balancing act in managing the HIV epidemic in Africa: should the focus be on preventing HIV transmission or on protecting infants from gastroenteritis and other serious infectious diseases? Ideally, approaches that balance both competing priorities can be identified. Dr. Kafulafula and colleagues write, “Strategies are urgently needed which allow longer breastfeeding while reducing the risk of HIV breast milk transmission in resource-limited settings.”

About JAIDS
JAIDS: Journal of Acquired Immune Deficiency Syndromes (www.JAIDS.com) is the trusted, interdisciplinary resource for HIV- and AIDS-related information with a strong focus on basic science, clinical science, and epidemiology. Co-edited by the foremost leaders in clinical virology, molecular biology, and epidemiology, JAIDS publishes vital information on the advances in diagnosis and treatment of HIV infections, as well as the latest research in the development of therapeutics and vaccine approaches. This ground-breaking journal brings together rigorously peer-reviewed articles, reviews of current research, results of clinical trials, and epidemiologic reports from around the world.

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