BREASTFEEDING AND HIV/AIDS
Frequently Asked Questions (FAQ)

FAQ SHEET 1 From the LINKAGES Project UPDATED April 2004

HIV passes via breastfeeding to about 1 out of 7 infants born to HIV-infected women. But in many situations where there is a high prevalence of HIV, not breastfeeding dramatically increases the risk of infant mortality. Infants can die from either the failure to appropriately breastfeed or from the transmission of HIV through breastfeeding.

In many programs to prevent mother-to-child transmission of HIV, the emphasis to date has been on the provision of antiretroviral drugs to prevent transmission around the time of delivery. Programs need to expand coverage and provide mothers with information, guidance, and support that allows them to choose and adhere to the safest infant feeding strategy for their situation.

FAQ Sheet is a series of publications of Frequently Asked Questions on topics addressed by the LINKAGES Project. This issue provides recommendations on breastfeeding and HIV. It reviews the latest information on the transmission of HIV via breastfeeding and provides programmatic guidance for field activities. Further information is available in publications listed at the end of this FAQ Sheet.

Q *How many infants are at risk of HIV?*

Risk to infants of HIV-infected mothers. In the absence of any intervention, between 15 and 30 percent of infants of HIV-infected mothers are infected before or during delivery. If all HIV-infected mothers breastfeed, another 10 to 20 percent of their infants will be infected through breastfeeding. This means that about two-thirds of children of HIV-infected women will not become infected.

Risk to all infants in a community. Although the percentage of mothers infected with HIV approaches 40 percent in some African communities, it generally is much lower, rarely above 25 percent (one in four).

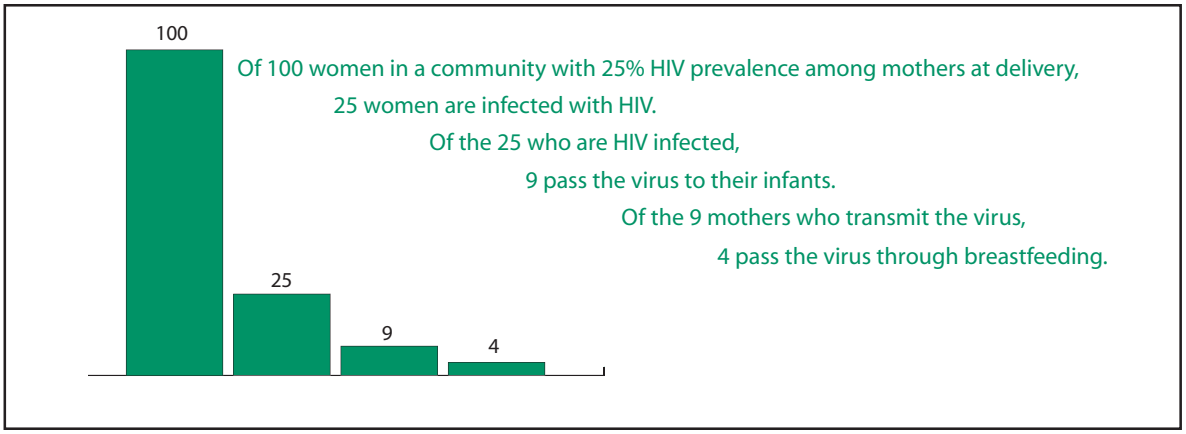
The risk of HIV transmission via breastfeeding can be calculated by multiplying the HIV prevalence rate among mothers at the time of delivery (25 percent in the example below) by 15 percent (25 percent at risk x 15 percent infected through breastfeeding = 3.75 percent). In other words, even where 25 percent of women are infected with HIV and all of them breastfeed, less than 4 percent of all infants in the community will be infected through breastfeeding.

Q *Does breastfeeding pose any risk to the HIV-infected mother?*

Only two studies have examined the association between breastfeeding and the health of HIV-infected mothers, and their findings were contradictory. WHO reviewed these studies, concluded that the results did not merit a change in current recommendations, and urged more research on the topic.

All mothers should increase their food intake and eat nutrient-rich food during lactation. Breastfeeding uses energy and other nutrients that need to be replaced to keep a mother healthy. Nutritional support is particularly important for the HIV-infected mother because HIV puts an additional strain on her energy and nutrient stores and may affect her appetite.

Figure 1. Risk of Mother-to-Child Transmission of HIV in Communities in Developing Countries with 25 Percent HIV Prevalence



Q *Should mothers with HIV be advised not to breastfeed?*

IT DEPENDS . . .

IF a mother knows she is infected, and
IF breastmilk substitutes are affordable and can be fed safely with clean water, and
IF adequate health care is available and affordable,
THEN the infant's chances of survival are greater if fed artificially.

HOWEVER,

IF infant mortality is high due to infectious diseases such as diarrhea and pneumonia, or
IF hygiene, sanitation, and access to clean water are poor, or
IF the cost of breastmilk substitutes is prohibitively high, or
IF access to adequate health care is limited,
THEN breastfeeding may be the safest feeding option even when the mother is HIV-positive.

Even where clean water is accessible, the cost of locally available formula exceeds the average household's income. If families cannot buy sufficient supplies of breastmilk substitutes, they may:

- over-dilute the breastmilk substitute,
- under-feed their infant, or
- replace the breastmilk substitute with dangerous alternatives.

In the 50 poorest developing countries, infant mortality averages over 100 deaths per thousand live births. **Artificial feeding can triple the risk of infant death.**

Q *If a mother with HIV breastfeeds, how can she reduce the risk of transmission?*

HIV-positive women may be able to reduce the risk of transmission by:

- **Breastfeeding exclusively for the first six months.** Many experts believe that the safest way to breastfeed in the first six months is to do so exclusively, without adding any other foods or fluids to the infant's diet. These additions are not needed and may cause gut infections that could increase the risk of HIV transmission. In South Africa, HIV-positive mothers who reported breastfeeding exclusively for at least three months were less likely to transmit the virus to their infants than mothers who introduced other foods or fluids before three months. Moreover, their risk of transmitting the virus was no greater than among mothers who never breastfed.

- **Shortening the total duration of breastfeeding.** There is evidence that the risk of transmission continues as long as the infant is breastfed. The risk of death due to replacement feeding (feeding an infant who is not receiving any breastmilk a nutritionally adequate diet) is greatest in the first few months and becomes lower over time. As the infant ages, a breastfeeding mother should reassess her situation and the risk factors associated with various feeding options. If replacement feeding becomes acceptable, feasible, affordable, sustainable, and safe, she should transition to replacement feeding. The optimum time and strategy for introducing substitutes is not known and varies with the situation. Under conditions common in resource-limited settings, many experts recommend a transition from exclusive breastfeeding to replacement feeding at about 6 months of age.
- **Preventing and promptly treating oral lesions and breast problems.** If an infant has oral lesions (commonly caused by thrush) or if a mother has breast problems such as cracked nipples or mastitis, the risk of transmission is higher.
- **Taking antiretroviral drugs.** In a clinical trial in Uganda, a single dose of nevirapine to a mother during labor and another to her infant after delivery reduced transmission in breastfed infants by 42 percent through six weeks and by 35 percent through 12 months. The simplicity and lower cost of the nevirapine regimen—compared with other regimens that are prohibitively expensive for most poor households—offers hope that it will become an important component of programs to reduce mother-to-child transmission. Many studies are now underway to find out if antiretroviral drugs used by the mother or the infant during the breastfeeding period can further reduce transmission. The safety and effectiveness of these regimens are not yet known.

Q *What are the current international recommendations on breastfeeding and HIV?*

The latest UN policy statement on HIV and infant feeding was issued in 2001, following an expert consultation on mother-to-child transmission of HIV. Regarding the balance of risks between breastfeeding and replacement feeding, the statement says:

"When replacement feeding is acceptable, feasible, affordable, sustainable, and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life. To minimize HIV transmission risk, breastfeeding should be discontinued as soon as feasible, taking into account local circumstances, the individual woman's situation, and the risks of replacement feeding (including infections other than HIV and malnutrition). When HIV-infected mothers choose not to breastfeed from birth or stop breastfeeding later, they should be provided with specific guidance and support for at least the first 2 years of the child's life to ensure adequate replacement feeding. Programmes should strive to improve conditions that will make replacement feeding safer for HIV-infected mothers and families."

The statement emphasizes the need for counseling on the risks and benefits of different feeding options but recognizes that "many women find that receiving information on a range of infant feeding options is not sufficient to enable them to choose and they seek specific guidance."

To help countries implement this policy, guidelines for policy makers and health care managers were published by the UN agencies in 1998 and updated in 2003. Most countries offer voluntary counseling and testing as part of antenatal services. Pregnant women who test positive for HIV receive counseling on infant feeding options, among other things. To understand all the positive and negative effects on feeding practices and infant health among HIV-positive mothers and in the general population, it is important that these efforts are adequately monitored and evaluated.

The International Code of Marketing of Breastmilk Substitutes was introduced by the World Health Organization in 1981 to counter the negative effects of the introduction of breastmilk substitutes in developing countries. The Code's provisions are particularly relevant in this era of HIV and should continue to be promoted and observed. The effects of a general reduction in breast-feeding would be disastrous for child health and survival.

Q *What population-based strategies can promote breastfeeding and minimize HIV transmission?*

Promote safer sexual behavior. The best way of protecting children from HIV is to help women avoid HIV infection. Most infection is through unprotected sexual intercourse. The risk of infection can be lowered by decreasing the number of sexual contacts, reducing the number of partners, and using condoms. Methods of protection that women themselves can control are urgently needed. Treating and preventing other sexually transmitted diseases can also help decrease the risk of HIV transmission. Improving the economic and social conditions of women and girls also would reduce their vulnerability to coercive and other unsafe sexual situations.

Provide universal access to voluntary and confidential HIV testing and counseling for both men and women. At present, access to HIV testing is generally low, yet many of the strategies proposed for reducing mother-to-child transmission assume that the mother's HIV status is known. Even where testing is available, mothers often do not want to know their status or cannot be assured that test results will be confidential.

Communicate the advantages of knowing one's HIV status. As treatment, care, and support for people living with AIDS become more effective and available, the advantages of knowing one's status will increase. If a mother knows she is infected, she can try to minimize the risk of transmission to her partners and children and, if she chooses, avoid further pregnancies. As part of her counseling, she should be given information on the risks and benefits of infant feeding options. If she knows she is not infected, she should be counseled to breastfeed, knowing that there is no risk of infecting her child. She should also be motivated to protect herself from further risk of infection. Stimulating demand for testing by emphasizing these advantages along with ensuring the availability of confidential testing is essential.

Provide technical information to opinion makers. Health care providers and groups with public influence— such as the media, policy makers, and health advocates— need accurate technical information on this issue to prevent the spread of misinformation and to maintain the strength and credibility of breastfeeding promotion activities.

Provide locally adapted counseling guidelines to health workers. UN agencies have developed counseling guidelines for health workers and policy makers that address the risks and benefits of available infant feeding methods and how to make the chosen method of infant feeding as safe as possible. These guidelines need to be adapted to reflect local conditions and feasible infant feeding alternatives.

Train health workers to counsel mothers. Locally adapted guidelines are not enough by themselves to ensure that mothers' infant feeding decisions are well informed. It takes skill, experience, sensitivity, and understanding to assess a mother's situation and to communicate all the information that she needs (on modes of transmission, risk factors, preventive strategies, and the level of health service support available) to balance the risks and benefits of feasible infant feeding strategies.

Continue to promote, protect, and support breastfeeding. In the absence of breastfeeding promotion, there is a danger that

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Box 1. HIV and Infant Feeding Counseling Guidelines in Resource-Poor Communities

Situation	Health Worker Guidelines
Mother's HIV status is unknown	• Promote availability and use of confidential testing • Promote breastfeeding as safer than artificial feeding* • Teach mother how to avoid exposure to HIV
HIV-negative mother	• Promote breastfeeding as safest infant feeding method (exclusive breastfeeding for first 6 months, introduction of appropriate complementary foods at about 6 months, and continued breastfeeding to 24 months and beyond) • Teach mother how to avoid exposure to HIV
HIV-positive mother who is considering her feeding options	• Treat with antiretroviral drugs, if feasible • Counsel mother on the safety, availability, and affordability of feasible infant feeding options • Help mother choose and provide safest available infant feeding method • Teach mother how to avoid sexual transmission of HIV
HIV-positive mother who chooses to breastfeed	• Promote safer breastfeeding (exclusive breastfeeding up to 6 months, prevention and treatment of breast problems of mothers and thrush in infants, and shortened duration of breastfeeding when replacements are safe and feasible)
HIV-positive mother who chooses to feed artificially	• Help mother choose the safest alternative infant feeding strategy (methods, timing, etc.) • Support her in her choice (provide education on hygienic preparation, health care, family planning services, etc.)

* Where testing is not available and where mothers' HIV status is not known, widespread use of artificial feeding would improve child survival only if the prevalence of HIV is high and if the risk of death due to artificial feeding is low, a combination of conditions that does not generally exist.

information about HIV transmission during breastfeeding will result in inappropriate discontinuation of breastfeeding among both HIV-positive mothers and uninfected mothers who do not know their status. Breastfeeding promotion should include continued efforts to monitor the observance of the provisions of the International Code of Marketing of Breastmilk Substitutes and the use and misuse of information on breastfeeding and HIV.

Support research. Policies and programs remain hampered by uncertainty. We need to know more about factors that influence transmission rates and about the risks associated with different feeding alternatives at different ages in poor environments. There is a particular need to distinguish different patterns of breastfeeding using standard definitions. We also need to translate this information into knowledge that the mother can use to make the best infant feeding decision for herself, her baby, and her family.

Q *What advice can health workers give to mothers?*

Each situation is unique, and health workers must tailor their advice to the individual needs of each mother. Ultimately, the infant feeding choice is the mother's, but this decision should be based on the best information available. The role of the health worker is to provide this information and the support needed to make the mother's choice as safe as possible. Box 1 offers counseling guidelines for various situations.

For the woman who is not infected, breastfeeding is clearly the best choice. Breastfeeding remains one of the most effective strategies to improve the health and chances of survival of both the mother and child. It provides a complete and hygienic source of the infant's fluid and nutritional requirements through the first six months of life, as well as growth factors and antibacterial and antiviral agents that protect the infant from disease for up to two years and more. Breastfeeding also contributes to child spacing and women's long-term health. These benefits of breastfeeding are likely to be even greater in emergency situations where safe preparation and use of breastmilk substitutes may be more difficult that in normal circumstances.

References

Coutsoudis A, Pillay K, Kuhn L, et al. Method of feeding and transmission of HIV-1 from mothers to children by 15 months of age: prospective cohort study from Durban, South Africa. *AIDS* 15:379-387, 2001.

De Cock KM, Fowler MG, Mercier E, et al. Prevention of mother-to-child HIV transmission in resource-poor countries: Translating research into policy and practice. *JAMA* 283:1175-1182, 2000.

Gaillard P, Fowler M-G, Dabis F, et al. Use of antiretroviral drugs to prevent HIV-1 transmission through breast-feeding: From animal studies to randomized clinical trials. *J Acquir Immune Defic Syndr* 35:178-187, 2004.

Preble EA, Piwoz EG. Prevention of Mother-to-Child Transmission of HIV in Asia: Practical Guidance for Programs. A joint publication of the LINKAGES and Support for Analysis and Research in Africa (SARA) Projects. Academy for Educational Development: Washington, DC: 2002.

Ross JS, Labbok MH. Modeling the effects of different infant feeding strategies on young child survival and mother-to-child transmission of HIV. *Am J Pub Health* 2004 (in press).

WHO Technical Consultation on Behalf of the UNFPA/UNICEF/WHO/UNAIDS Inter-Agency Task Team on Mother-to-Child Transmission of HIV. New Data on the Prevention of Mother-to-Child Transmission of HIV and Their Policy Implications: Conclusions and Recommendations. WHO/RHR/01.28. World Health Organization: Geneva, 2001.

WHO. HIV and Infant Feeding: Framework for Priority Action. World Health Organization: Geneva, 2003.

WHO/UNAIDS/UNICEF. HIV and Infant Feeding: Guidelines for Decision-makers. World Health Organization: Geneva, 2003.

WHO/UNAIDS/UNICEF. HIV and Infant Feeding: A Guide for Health Care Managers and Supervisors. World Health Organization: Geneva, 2003.

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