

5 INFANT FEEDING AND HIV

For anyone working with mothers and infants, it has been distressing to learn that HIV can be transmitted through breastmilk, because the promotion and support of breastfeeding has been so important in reducing the number of infant deaths from diarrhoeal and respiratory infections and from malnutrition. The situation has left many unsure about what they should be doing and saying about breastfeeding in places where HIV prevalence is high.

It is estimated that out of every 100 children breastfed by HIV-positive mothers, 14 (or one in seven) will become HIV positive through breastfeeding. If mothers are newly infected while breastfeeding, the infection rate from breastfeeding is even higher – 29 in every 100 children, or more than one quarter of the children will become HIV positive. A recent study showed that the number of infants who get HIV from their mothers could be reduced by 40 per cent if HIV-infected women avoided breastfeeding.

International guidelines

In 1997, the WHO, UNAIDS and UNICEF made a new policy about HIV and infant feeding. It says that where adequate alternatives are available and the risks associated with artificial feeding can be minimised, HIV-positive women should be advised not to breastfeed because of the risk that infants can become infected through breastfeeding.

In many of the larger towns and cities across sub-Saharan Africa, at least amongst the more affluent and well-educated families, HIV-positive women can get access to breastmilk substitutes and can ensure that feeds are prepared safely. But for many women, there will be no safe and economic alternative to breastfeeding. The risk to the infant of early death because of not breastfeeding in such circumstances is likely to be greater than the risk of HIV transmission.

Deciding whether to breastfeed

Women everywhere have the right to be given the information they need to make an informed decision about whether or not to breastfeed, according to their individual circumstances.

Getting tested

Many women do not know their status. Voluntary testing and counselling services should be made more widely available to enable women to make an informed decision about the best feeding option for them and their baby.

Women who know that they are HIV negative can



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Women who choose to breastfeed need support to ensure their baby is properly attached.

breastfeed their baby with confidence (or near confidence, see page 2 for information on the window period), provided they take care not to become infected while they are breastfeeding.

What increases the risk of HIV through breastfeeding?

The risk of HIV transmission through breastmilk is higher when a woman:

- becomes infected with the virus during pregnancy or while breastfeeding
- shows signs of HIV-related illness (AIDS) – this is because she has a high viral load, and because her CD4 count will be low.

Breast problems such as cracked nipples or breast infection (mastitis) may also increase the risk, but further research is needed to confirm this.

Essential information for HIV-positive women

For HIV-positive women, it is essential that they are given all the information they need to make an informed decision about infant feeding.

Maggie Murray



HIV-positive women need ongoing support with decisions about infant feeding.

- There is a one in seven risk of an HIV-positive woman passing the virus to her baby through breastmilk.
- Children who are HIV positive are much more likely to die before the age of five than non-infected children and may suffer from frequent illness during their childhood.
- Mixed feeding (giving other foods or drinks as well as breastmilk) seems to have the highest risk of HIV transmission. If a woman chooses to breastfeed she should breastfeed **exclusively** for at least the first three months, which means giving no other drinks or food (see box, page 14).
- Breastfeeding protects babies against infections other than HIV, and is nutritionally the best and most hygienic form of infant feeding. In countries where malnutrition and infectious diseases are the main cause of infant deaths, infants who are not breastfed are more likely than breastfed babies to die from diseases such as diarrhoea and acute respiratory infections.
- Breastmilk alternatives – formula or animal milk – can be very expensive. For example, in Zimbabwe, the monthly cost of formula milk for a baby would be around Zimbabwe \$250-300, about the same as the monthly minimum wage.
- Safe and hygienic preparation of breastmilk alternatives requires access to adequate supplies of clean water and fuel, and knowledge about how to mix feeds correctly. Health workers have an important role in ensuring that women have good information and support to help them to prepare feeds safely.
- Cup feeding, rather than bottle feeding of breastmilk substitutes, is recommended to reduce the risk of contamination.
- Exclusive breastfeeding protects against pregnancy. If a woman decides not to breastfeed, she needs to have access to safe and reliable contraception.
- Not breastfeeding may signal to others that a mother has HIV, and she may wish to keep her status confidential. The public disclosure of a woman's status

can put her, and her family, at risk of social exclusion or even violence.

Once a woman has made a decision about which method of infant feeding is best for herself and her baby, she should be given support and advice so that she can do this as safely as possible. (See 'Alternatives to breastfeeding' and 'Care and advice to breastfeeding women').

Alternatives to breastfeeding

- Commercial infant formula provides the best mix of nutrients for infants who cannot have breastmilk. But it is expensive if bought commercially, and is not an option for many mothers at the moment. Feeding an infant for six months requires on average 40 x 500g tins (44 x 450g tins) of formula. There are efforts being made to reduce the price of commercially prepared infant formula and to make it more widely available. This would mean that HIV-positive women who decide not to breastfeed would be able to give their babies a safe and nutritionally adequate alternative to breastmilk, whatever their economic circumstances.
- Home-prepared formula – made with fresh animal milk, dried whole milk or unsweetened evaporated milk. These milks must be modified to make them suitable for infants. For example, to prepare fresh cow's milk: mix 100mls milk with 50mls of water and two level teaspoons of sugar, and boil. Micronutrient supplements should also be given, because animal milks contain insufficient iron and zinc, and sometimes vitamin A and folic acid.
- Expressed breastmilk – this must be boiled (to kill the virus) and then cooled immediately by putting it in cold water or a refrigerator.
- Breastmilk banks – in some areas donated breastmilk is used for short periods, for example, to feed sick and low birth weight babies in hospital. Donors should be tested for HIV and the donated milk pasteurised before use.
- Breastmilk from another woman who can breastfeed (known as a wet nurse) and who already knows that she does not have HIV. This is often the grandmother. Women who act as wet-nurses, must be given information about how to practise safer sex, to make sure they remain HIV negative while breastfeeding the infant.

Exclusive breastfeeding

For women who decide that breastfeeding is still the best option for them, it is important that they **exclusively breastfeed**, for at least the first three months. This means giving nothing at all to the baby from the moment he or she is born except breastmilk – no water, no tea, no formula, no honey, no juice, no porridge and no dummies.

Recent observations from a study in Durban, South Africa, found that mixed feeding, where infants were breastfed but were also given other drinks or food in their first three months, carried the highest risk of HIV transmission through breastmilk. These results have not been confirmed by other studies and more research is urgently required.

It is not clear exactly why mixed feeding puts the baby at higher risk of becoming infected with HIV, but it may be because anything except breastmilk can damage the lining of the baby's stomach and intestines. Once the baby's intestines have been damaged, then the natural protection against all infections, including HIV, is lost.

When women cannot breastfeed exclusively

Mothers cannot always breastfeed exclusively. These mothers face difficult decisions about how to feed their babies, whether they are HIV positive or not. Each must do their best according to their own circumstances, depending on what food is available, who is caring for the baby, how old the baby is, and so on. For women who are not HIV positive, the best advice is for them to carry on breastfeeding the baby as much as they can; during the night, before going to work, after coming back from work, on days off. During work hours breastmilk will need to be substituted with the most nutritional, cleanest food and drink possible.

For women who know they are HIV positive and have decided to breastfeed, going back to work means that they cannot exclusively breastfeed their babies. Their babies may then be at a higher risk of becoming HIV infected through mixed feeding.

Stopping breastfeeding early

There is much discussion about when, and how, to wean the babies of HIV-positive mothers. HIV can be transmitted through breastmilk at any time – even when the baby is over six months old. Some people think that it might be best to wean the baby from the breast at six months of age. This is because the main

CARE AND ADVICE TO BREASTFEEDING WOMEN

The care and advice to give HIV-positive women who decide to breastfeed is the same as to other breastfeeding women:

- 1 Breastfeed within the first hour of birth, so that the baby gets the full benefit of colostrum with all its anti-infective properties. HIV is present in higher concentrations in colostrum, but there is no evidence to show an increased risk of transmission.
- 2 Give nothing but breastmilk for the first four to six months of life. Breastmilk will meet all the babies' needs for nutrition up to the age of six months and protects against infections.
- 3 Make sure the baby is 'attached' properly when breastfeeding. This means that the baby has got enough of the breast in its mouth for feeding not to hurt. Good attachment prevents cracked and sore nipples.
- 4 Use a condom when having sex. For women who are already HIV positive, this may help to prevent reinfection with HIV or infection with another STI and thus keep down the viral load and reduce the risk of HIV transmission.
- 5 Seek treatment for infections, particularly malaria, TB, other chest infections and STIs. This will help to keep the mother healthy and able to breastfeed and, in HIV-positive women, may help to keep the CD4 count up.

benefits of breastfeeding are in the earliest months and the baby can cope better with other foods after six months.

More research is needed to find out more about the importance of breastfeeding to the health of babies after they reach six months, and the time at which the risk of HIV transmission through breastmilk is greatest. It is also important to look at how acceptable early weaning is to mothers and babies.