

# Effects of breastfeeding: Implications for Policies on HIV and Infant Feeding

## Summary of published paper



The recognition that HIV is transmitted through breast-milk has raised important questions about strategies that promote breastfeeding in areas of high HIV prevalence. As this question is particularly relevant to emergency situations where levels of communicable diseases are often high, Field Exchange has continued to publish relevant findings on this subject (see Field Exchange 3, 8 and 9).

Theoretical models have been developed to assess the advantages and disadvantages of breastfeeding for HIV positive women as well as for women of unknown HIV status who live in areas of high HIV prevalence. These models have taken into account the risk of transmission through breastfeeding with regard to the age of the infant, the protection afforded by breast-milk against infectious disease mortality, the underlying HIV prevalence, and the rate of infant and child mortality. However, according to a recent WHO/UNAIDS<sup>1</sup> review an important limitation of these models was the poor quantification of the relative risks for mortality associated with lack of breastfeeding. Such models used relative risk estimates ranging from 1.3 to 7.9 and no model allowed for variable levels of protection within the first year of life.

A recent study has addressed the protective effect of breastfeeding according to the age and sex of the infant, the cause of death and the education status of the mother. Information on 1223 deaths of children under two years of age was obtained from 8 studies conducted between 1980-98. It was found that protection from breast-milk declined steadily with age during infancy (5.8 for infants <2 months, 4.1 for 2-3 month olds, 2.6 for 4-5 month olds, 1.8 for 6-8 month olds and 1.4 for 9-11 month olds). In the first six months of life protection against diarrhoea was substantially greater than against deaths due to acute respiratory infection. For second year deaths, the pooled risk ratios from five of the studies ranged between 1.6-2.1. Protection was highest when maternal education was low.

The researchers recognised that observational studies of breastfeeding and infant health may be affected by a number of methodological problems including self-selection, reverse causality, i.e. feeding changes as a result of the illness, and confounding. An attempt was therefore made in the study to avoid reverse causality by recording breast-feeding before the fatal illness episode. It was also recognised that the studies used did not employ a

uniform protocol for defining causes of death. Furthermore, most of the studies did not provide sufficient information on breast-feeding patterns (exclusive, predominant, or partial) to allow a pooled analysis of this variable.

## Conclusions and recommendations

The authors of the study recommend that the findings on relative risk should be used in future simulations of the impact of withholding breastfeeding in HIVpositive mothers. The results will also help assess the risks and benefits associated with breastfeeding for children of different ages.

Particular attention is drawn to the higher levels of protection seen among less educated women, particularly for deaths between the ages of 6-11 months. The results are said to be consistent with the finding that infant-mortality differentials according to breastfeeding status are virtually non-existent in more developed countries where maternal education is high.

The authors suggest that the main policy issue arising out of the research is whether or not HIV positive mothers with low levels of schooling and income will be able to safely feed their infant with breast-milk substitutes.

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<sup>1</sup>WHO (2000) Effect of breastfeeding on infant and child mortality due to infectious diseases in less developed countries: a pooled analysis. WHO collaborative study team on the role of breastfeeding on the prevention of infant mortality. The Lancet, vol 355. February 5th, 2000

Taken from Field Exchange 10

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