CONCLUSIONS

Introduction

In 1997, the Joint United Nations Programme on HIV/AIDS, and two of the six co-sponsoring agencies, WHO and UNICEF, issued a Joint Policy Statement on HIV and Infant Feeding, and initiated the development of guidelines to help national authorities to implement the policy. Three other documents have now been prepared: HIV and Infant Feeding: A review of Transmission of HIV Through Breastfeeding\(^1\); HIV and Infant Feeding: Guidelines for Decision Makers\(^2\) and HIV and Infant Feeding: A Guide for Health Care Managers and Supervisors\(^3\). A Technical Consultation on HIV and Infant Feeding was convened by WHO in Geneva on 20-22 April 1998 to discuss their implementation.

The Guidelines and Guide recognise that:

- HIV infection can be transmitted through breastfeeding. Appropriate alternatives to breastfeeding should be available and affordable in adequate amounts for women whom testing has shown to be HIV-positive.
- Breastfeeding is the ideal way to feed the majority of infants. Efforts to protect, promote and support breastfeeding by women who are HIV-negative or of unknown HIV status need to be strengthened.
- HIV-positive mothers should be enabled to make fully informed decisions about the best way to feed their infants in their particular circumstances. Whatever they decide, they should receive educational, psychosocial and material support to carry it out their decision as safely as possible, including access to adequate alternatives to breastfeeding if they so choose.
- To make fully informed decisions about infant feeding, as well as about other aspects of HIV, mother-to-child transmission (MTCT) and reproductive life, women need to know and accept their HIV status. There is thus an urgent need to increase access to voluntary and confidential counselling and HIV testing, and to promote its use by women and when possible their partners, before increasing access to alternatives to breastfeeding.
- An essential priority is primary prevention of HIV infection. Education for all adults of reproductive age, particularly for pregnant and lactating women, and for young people, needs to be strengthened.

Alternatives to breastfeeding for HIV-infected mothers

The Guide and Guidelines describe a number of infant feeding options which women who are HIV-positive may consider, including replacement feeding, modified breastfeeding, and the use of breast milk from other sources.

Replacement feeding means providing a child who receives no breast milk with a diet that contains all the nutrients that the child needs throughout the period for which breast milk is recommended, that is for at least the first two years of life.
- From birth to six months of age, milk is essential, and can be given in the form of commercially produced infant formula; or home-prepared formula made by modifying fresh or processed animal milk, which should be accompanied by micronutrient supplements (especially iron, zinc, folic acid, vitamin A, and vitamin C).

- From six months to two years, replacement feeds should consist of appropriately prepared nutrient-enriched family foods given three times a day if commercial or home-prepared formula continues to be available, or five times a day if neither formula is available. If possible, some form of milk product (such as dried skimmed milk or yoghurt) should be included as a source of protein and calcium; meat or fish as a source of iron and zinc; and vegetables to provide vitamin A and C, folic acid and other vitamins.

Families need careful instruction about the preparation of adequate and safe replacement feeds, including accurate mixing, and cleaning and sterilising of utensils. They need resources such as fuel, clean water, and time to enable them to prepare feeds safely. The risk of illness and death from replacement feeding must be less than the risk of transmission of HIV through breastfeeding, or there will be no advantage in choosing this alternative.

Other options that may be appropriate are modified breastfeeding (early cessation of breastfeeding, or expression and heat treatment of the mother’s breastmilk); or use of other breastmilk (from a breast-milk bank, or from a wet-nurse within the family, who is HIV-negative.)

**Summary of discussions and recommendations**

**1. Implementation of support for replacement feeding**

To provide support for adequate replacement feeding, while preventing the unnecessary spread of artificial feeding, it will be necessary for governments to take action to implement and enforce the International Code of Marketing of Breast-milk Substitutes and subsequent relevant resolutions of the World Health Assembly (collectively referred to as the Code). The aim of the Code is to contribute to the provision of safe and adequate nutrition for infants, by the protection and promotion of breastfeeding, and by ensuring the proper use of breast-milk substitutes when these are necessary.

Governments will need to consider the availability, efficacy, safety and sociocultural appropriateness of all the alternative feeding options described in the Guidelines and Guide. If it is planned to provide breast-milk substitutes for infants of HIV-infected mothers, it will be necessary to assess the quantities required as indicated in the Guide, and ensure that adequate amounts are available on a continuous and sustained basis for as long as the infants concerned need them (at least 6 months). Reliable sources and distribution systems should be identified and governments may wish to consider bulk purchase through regional or international tender.

Governments will need to take strong measures to prevent “spillover” – that is, the spread of artificial feeding to infants of mothers who are HIV-negative or who do not know their HIV status, and who would benefit from breastfeeding. Measures include:

- Central procurement of breast-milk substitutes through government channels.
• Making any free or subsidised breast-milk substitutes available on prescription, and only to HIV-positive women who, after counselling, decide not to breastfeed and who choose this alternative feeding option.
• Considering generic packaging if this is locally acceptable, with appropriate labelling and a means of identification for the purpose of quality control.
• Ensuring appropriate stock management systems for proper handling of supplies.

Governments will also need to establish appropriate distribution channels for breast-milk substitutes that can be regulated by public health or other appropriate government authorities. These include approved pharmacies, social welfare institutions and appropriate non-governmental organisations (NGOs). Infant formula purchased through normal government procurement channels can be distributed through the health care system in accordance with the Code. Relevant UN agencies will assist governments in identifying appropriate distribution mechanisms. They should protect the need for confidentiality when a mother obtains her supply.

Comprehensive monitoring of the implementation of the Code is essential, with a particular focus on the appropriate distribution of infant formula to HIV-positive mothers.

The financial and manpower costs of making these arrangements, which will be additional to the cost of purchasing formula, should be taken into consideration by the authorities when introducing policies to provide alternatives to breastfeeding.

2. The role of health services – a package of care

Support for alternatives to breastfeeding should be considered part of a package of care to reduce mother-to-child transmission (MTCT) of HIV. This will consist of:
- improved maternal nutrition;
- safe delivery practices;
- voluntary and confidential counselling and HIV testing, as a prerequisite for offering the specific interventions below.

For women who know and accept that they are HIV-positive:
- possible use of short course treatment with anti-retroviral drugs to reduce MTCT;
- counselling about infant feeding options, and support for alternatives to breastfeeding;
- follow-up clinical care and counselling, and social support for women, and their children and families.

This package of care needs to be integrated into strengthened maternal and child health (MCH) services, which will include increased access to and improved quality and use of antenatal and delivery care and family planning services; and health and nutrition care for children, including increased protection, promotion and support of breastfeeding for the majority of mothers, with strengthening of the Baby Friendly Hospital Initiative and breastfeeding counselling.

In adopting this approach, it will be necessary:
- first, to assess its feasibility, which will include calculating the expected demand, the existing resources which could be employed, the overall readiness of the health care system, and additional needs such as staff, facilities and supplies;
- second, to identify those who will be responsible for implementation, such as institutional MCH staff and community workers. Specific roles and responsibilities will need to be
defined, and job descriptions adapted so that identified staff are authorised to take time for the necessary work;
- third, to make arrangements in appropriate facilities (government or NGO) to provide access to care, with confidentiality and linkages to follow-up services. The importance of equity, and the need to increase access for the more disadvantaged sections of the community should be recognised.

A major requirement will be further development of appropriate training programmes for staff at basic and supervisory level, to ensure that all staff have supportive attitudes to people living with HIV; and for those directly involved with women and children, to strengthen their skills in communication, in counselling for both HIV and infant feeding, and in provision of follow-up care.

The introduction of the package will need to be phased, starting in situations where it is most feasible, and using the experience gained, to extend it further. Voluntary and confidential counselling and HIV testing may be introduced first where antenatal care is already functioning well and accepted.

Appropriate information, education and communication (IEC) activities will be important at all levels, both to ensure political commitment to the approach, and to increase acceptance and use of the counselling and HIV testing services provided, by raising awareness and giving them a positive image.

The urgency of addressing the need to reduce mother-to-child transmission of HIV should be recognised by national and international authorities, and mechanisms for increasing health budgets found.

3. The role of the community

Community structures have a vital role to play in providing a supportive and enabling environment for people living with HIV; by raising the awareness of the whole community about HIV and AIDS, addressing the problem of people denying that HIV is a problem for them, by promoting acceptance of voluntary and confidential counselling and HIV testing, and by reducing the stigmatisation and victimisation which is often associated with HIV infection. Politicians, influential local leaders, businesses, and support groups should all be involved, and men and other decision-makers in families should be specifically targeted.

Communities have a special role to play in relation to infant feeding decisions of HIV-positive women, as the confidentiality of their HIV status may be compromised if they choose not to breastfeed. These women need protection and support to enable them to use alternatives to breastfeeding to avoid exposing their children to HIV, without risking being stigmatised and victimised themselves as a result. Often, protection and support can best be provided by shared confidentiality in a community setting. Community organisations have an important role in helping to:
- ensure the acceptance, feasibility and sustainability of alternatives to breastfeeding, by working with nutrition experts to investigate traditional alternative feeding practices, and to find ways to improve their nutritional adequacy and safety;
- identify resources necessary for replacement feeding and overall support of the family, for example with income generating projects, when external assistance is not sufficient.
- support breastfeeding and prevent “spillover” of artificial feeding among women who are HIV-negative or of unknown HIV status.

A gender-sensitive, community development approach is required, with any external assistance building on and strengthening existing community structures. Priority should be given to developing the knowledge and skills of resource persons such as community educators, counsellors, and community health and development workers, in relation to breastfeeding as the primary choice, and replacement feeding or modified forms of breastfeeding for HIV-infected women.

### 4. Research, monitoring and evaluation

While action on the basis of existing knowledge is urgently required, much remains uncertain or unknown. Research needs to continue to look for effective ways to reduce the risk of transmission of HIV through breastfeeding, in the hope that the use of alternatives will eventually become unnecessary.

Operational research will be a priority as new interventions are planned, and it will be necessary to monitor interventions, to learn more about their effectiveness and safety, and to take corrective action when necessary. Operational research will be needed to explore acceptability, feasibility and the social implications of voluntary counselling and HIV testing, various treatment regimens, replacement feeding, and modified breast-milk feeding options. Such research should be participatory, and involve affected communities and individuals in its design, implementation and evaluation.

There is a need to determine:
- optimal methods of implementing voluntary counselling and testing for pregnant women, for example, whether in specially designated units or integrated with other services;
- the best type of counsellor and counselling content, and the most suitable training methods;
- optimal nutrition requirements of children who receive no breast milk, including their micronutrient needs;
- bacteriological advantages of cupfeeding compared with bottle-feeding;
- more precisely the effect of heat treatment on HIV infectivity of breast-milk.

Monitoring will be needed to learn the effects on individuals and in communities if HIV-positive mothers use alternatives to breastfeeding. This should include monitoring overall rates of breastfeeding and artificial feeding, appropriateness and safety of use of breast-milk substitutes by HIV-positive women, and “spillover” of use of breast-milk substitutes to women who are HIV-negative or of unknown HIV status; mother-to-child transmission of HIV; infant health and growth (including diarrhoea morbidity and mortality); and maternal fertility and mortality. It will also be important to monitor use of services, such as antenatal care, counselling and testing, and specific interventions; and social effects such as the social well-being of women and their families, the prevalence of violence against women, and stigmatisation.
Existing indicators and ongoing surveys should be used when appropriate, though additional indicators for long term projects may need to be identified.

Research and monitoring will require considerable resources. Any resources made available should be free from conflict of interest.

References

1. HIV and Infant Feeding: A review of Transmission of HIV Through Breastfeeding (Document numbers)
2. HIV and Infant Feeding: Guidelines for Decision Makers (Document numbers)
3. HIV and Infant Feeding: A Guide for Health Care Managers and Supervisors (Document Numbers)