WHO GUIDELINES ON

HIV and INFANT FEEDING 2010

AN UPDATED FRAMEWORK for PRIORITY ACTION

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The Framework's purpose and target audience

The purpose of this *Framework* is to provide guidance to governments on key priority actions, related to infant and young child feeding, that cover the special circumstances associated with human immunodeficiency virus (HIV). The aim of this guidance is to create and sustain an environment that encourages appropriate feeding practices for all infants and young children, while scaling-up interventions to reduce HIV transmission. This *Framework* aims to build on the links and synergies between maternal and child health and investments, economic and human, in HIV prevention and control. This will bring additional benefits for all children, not just for those who are HIV-exposed.

The audience for this *Framework* includes national policy-makers, programme managers, regional advisory bodies, public health authorities, Country Coordinating Mechanisms, United Nations staff, professional bodies, non-governmental organizations and other interested stakeholders, including the community. The current document is an update of the previous *Framework*, published in 2003, and has been developed in response to both evolving knowledge and requests for clarification from these key sectors. It is based on the latest HIV and infant feeding recommendations; the previous Framework no longer applies.

The Global Policy Environment

Growing commitment and resources are helping to create a new focus on women's and children's health, including in the context of HIV. Four of the Millennium Development Goals (MDGs) with targets for 2015 are related to nutrition (MDG1), child survival (MDG4), maternal health (MDG5) and HIV/acquired immunodeficiency syndrome (AIDS) (MDG6). The United Nations Secretary General's Global Strategy for Women's and Children's Health (*1*) sets out key areas to enhance financing, strengthen policy and improve service delivery for these vulnerable groups. Important interventions include exclusive breastfeeding and other feeding practices for improved child survival and nutrition, and integrated care for HIV/AIDS (including prevention of mother-to-child transmission of HIV – PMTCT).

A related initiative aims to eliminate new paediatric HIV infections and to improve the health and survival of HIV-positive mothers and their infants by 2015. To achieve this, UNAIDS calls for scaling-up access to and the use of quality regimens and services for PMTCT, including through breastfeeding, ensuring mothers have continued access to HIV treatment, scaling up access to sexual and reproductive health services and protection of reproductive rights for women and their partners.

Prevention of HIV transmission through breastfeeding should be considered against a backdrop of promoting appropriate feeding for all infants and young children, as set out in the *Global Strategy for Infant and Young Child Feeding* (*2*). The aim of infant feeding practices in the context of HIV should be not just the prevention of HIV transmission but also ensuring the health and survival of infants – referred to as HIV-free survival. The operational objectives of this Strategy include: ensuring that exclusive breastfeeding for six months is protected, promoted and supported, with continued breastfeeding up to two years or beyond; promoting timely, adequate, safe and appropriate complementary feeding; and providing guidance on feeding infants and young children in exceptionally difficult circumstances, including for infants of HIV-positive women.

These and other global initiatives require additional investments in the expansion of maternal and child health services including nutrition programmes, and strengthening links between the various relevant services for both the general population and HIV-positive mothers and their infants, in the Countdown to 2015.

Infant feeding and child survival

The global recommendation for infant and young child feeding to ensure optimal health and development is that an infant should be breastfed exclusively[1] for the first six months of life, with adequate and safe complementary foods from that time and continued breastfeeding up to two years of age or beyond. Breastfeeding, especially early initiation[2] and exclusive breastfeeding, is one of the most critical factors in improving child survival.

Any breastfeeding (either exclusive or partial) compared to lack of breastfeeding has been shown to protect children by significantly reducing the risk of malnutrition and serious infectious diseases, especially in the first year of life (*3*). Exclusive breastfeeding in the first months appears to offer greater protection against disease (*4*), especially in low- and middle-income countries where 35% of all under-five deaths are associated with malnutrition (*5*). Not breastfeeding during the first two months of life is also associated, in resource-poor countries, with a six-fold increase in mortality due to infectious diseases (*3*). This finding most likely underestimates the benefits that exclusive breastfeeding has in lowering mortality, because sub-Saharan Africa was not represented in the study, and it compared breastfeeding with no breastfeeding rather than exclusive breastfeeding with no breastfeeding.

Breastfeeding and HIV-free survival[3]

Infant feeding in the context of HIV has been a controversial issue until recently. The World Health Organization's (WHO) 2010 recommendations (*6*) represent a turning point in terms of policy advances and clarity, and should lead to far fewer HIV infections and deaths in infants and young children.

In 2009, an estimated 2.5 million children under 15 years of age were living with HIV/AIDS (2.3 million in sub-Saharan Africa), and 370 000 children were newly infected with HIV through mother-to-child transmission (*7*). Over 1,000 children are newly infected with HIV every day, and of these more than half will die as a result of AIDS because of a lack of access to HIV treatment.

In the absence of interventions, 15–25% of HIV-positive mothers who do not breast-

[1] Exclusive breastfeeding means that an infant receives only breast milk from his or her mother or a wet nurse, or expressed breast milk, and no other liquids or solids, not even water, with the exception of oral rehydration solution, drops or syrups consisting of vitamins, mineral supplements or medicines.

[2] Initiation of breastfeeding within one hour of birth.

[3] HIV-free survival means that young children are both alive and HIV-uninfected at a given point in time, usually measured at 18 months. This composite measure takes into account that the intention of interventions is to both prevent HIV transmission through breastfeeding, while at the same time ensuring that mortality among these children does not increase because of avoidance of, or modifications to, breastfeeding practices.

feed will infect their infants during pregnancy or delivery. With breastfeeding, there is an absolute increase in transmission of about 5–20%. Available interventions that reduce transmission during pregnancy and delivery mean that the relative proportion of infants infected through breastfeeding is now higher. If gains in HIV-free survival are to be achieved, implementation of the new recommendations on HIV and infant feeding is needed urgently.

Avoidance of breastfeeding eliminates the risk of HIV transmission, but is detrimental in terms of child survival. Increased infant morbidity and mortality associated with replacement feeds have been reported in several sub-Saharan African countries (*8–17*). Improved HIV-free survival has been reported in HIV-exposed infants when breastfed in similar settings, especially when exclusively breastfed, compared with mixed feeding[1] or replacement feeding[2] (*18–19*). Only in a few better-resourced countries and settings have outcomes been comparable (*20–23*).

Exclusive breastfeeding during the first months of life carries less risk of HIV transmission than mixed feeding, affords considerable protection against infectious diseases, and provides other benefits. In a study in South Africa, infants who were exclusively breastfed were half as likely to be HIV infected by six months of age compared to infants who were also given formula milk (*7*). Other studies have also demonstrated that exclusive breastfeeding carries a lower risk than all types of mixed feeding (*19*).

The most compelling recent evidence concerns the use of antiretrovirals (ARVs) to greatly reduce the risk of HIV transmission through breastfeeding, while simultaneously ensuring the mother receives appropriate care. If an HIV-positive mother breastfeeds her infant while taking ARVs herself or giving ARVs to her infant each day, the risk of transmission over 6 months of breastfeeding is reduced to about 2%. If she breastfeeds for 12 months while taking ARVs or giving them to the infant, then the risk is about 4%. Without these ARV interventions, about 14–17% of breastfed infants of HIV-positive mothers would become HIV infected by 18 months of age (*24*).

Women whose severity of disease makes them eligible for antiretroviral treatment for their own health are also most at risk of infecting their infants. The new evidence and recommendations therefore have profound implications for child survival. In addition, the health benefits to these women of starting lifelong treatment will improve their lives and enable them to better to care for their children beyond the breastfeeding period.

2010 Recommendations on infant feeding and HIV

Infant feeding practices recommended to mothers known to be HIV-positive should support the greatest likelihood of HIV-free survival of their children and not harm the health of mothers. To achieve this, the obligation to prevent HIV transmission needs to be balanced with meeting the nutritional requirements and protection of infants against non-HIV morbidity and mortality, and at the same time ensuring that the mothers receive appropriate HIV care and support including ARVs.

Recommendations for feeding an infant whose mother is HIV-positive were modified in 2010 (*6*) to reflect the significant new evidence and knowledge regarding ARVs and breastfeeding, and to synchronize with revised

[1] Breastfeeding while also receiving water-based drinks, food-based fluid, semi-solid or solid food or non-human milk (also called partial breastfeeding).

[2] Giving any non-human milk with the exclusion of all breast milk, with or without other liquids or solids.

recommendations on treating HIV (*25*) and on PMTCT (*26*). The revisions capitalize on the maximum benefit of breastfeeding to improve the infant's chances of survival while reducing the risk of HIV transmission, and are based on the assumption that HIV-positive mothers will either receive lifelong ARV treatment to improve their own health, or if not eligible for treatment, the mother or infant will take ARVs as prophylaxis while breastfeeding.[1]

Significant changes have been made in the 2010 HIV and infant feeding recommendations, to reflect the wider use of ARVs, including:

- National health authorities are encouraged to recommend one infant feeding practice for HIV-positive mothers to be promoted and supported by maternal, newborn and child health services. In the past, health workers were expected to individually counsel all HIV-positive mothers about various infant feeding options so that the mothers could decide what was best for their infants given their circumstances. WHO is now explicit that health authorities should endorse either breastfeeding while receiving ARVs (to the mother or infant), or avoidance of all breastfeeding. Mothers will still need on-going counselling and support to optimally feed their infant.
- WHO recommends that women who breastfeed and receive ARVs (or whose infants are receiving ARVs) should exclusively breastfeed their infants for 6 months and continue breastfeeding until 12 months of age and only then consider stopping. In the past, mothers were recommended to exclusively breastfeed for six months and then stop breastfeeding completely as soon as they could provide an adequate and safe diet to the infant without breast milk.
- The way in which national authorities implement these recommendations should depend on a careful assessment taking into account major factors including HIV prevalence, background infant and child mortality rates, current infant and young child feeding practices and nutritional status of infants, availability of clean water and sanitation, socio-economic status of the population and quality of health services, including provision of interventions for PMTCT.

The Guidelines continue to highlight the importance of avoiding mixed feeding, to reduce the risk of HIV transmission and to avoid diarrhoea and malnutrition. Similarly, the Guidelines acknowledge that there are countries, namely those with low infant and child mortality rates, where replacement feeding may remain the best strategy to promote HIV-free survival among HIV-exposed infants.

[1] Full details of the guidance are available at: http://www.who.int/child_adolescent_health/documents/9789241599535/en/, accessed 12 July 2011.

Priority actions for governments

Develop or revise (as appropriate) a comprehensive evidence-based national infant and young child feeding policy which includes HIV and infant feeding

Promote and support appropriate infant and young child feeding practices, taking advantage of the opportunity of implementing the revised guidelines on HIV and infant feeding

Provide adequate support to HIV-positive women to enable them to success-fully carry out the recommended infant feeding practice, including ensuring access to antiretroviral treatment or prophylaxis

Develop and implement a communication strategy to promote appropriate feeding practices aimed at decision-makers, health workers, civil society, community workers, mothers and their families

Implement and enforce the International Code of Marketing of Breast-milk Substitutes and subsequent relevant World Health Assembly resolutions (the Code)

In relation to the special circumstances created by HIV/AIDS, five priority actions for national governments are proposed in the context of the *Global Strategy for Infant and Young Child Feeding*:

■ Develop or revise (as appropriate) a comprehensive evidence-based national infant and young child feeding policy which includes HIV and infant feeding

Actions required:

- Assess the current causes of morbidity and mortality in children under five in the context of HIV.
- Inform and build consensus among all relevant stakeholders on the infant and young child feeding policy as it relates to HIV.
- After a careful assessment of the situation within the country (as outlined above), decide whether health services will principally counsel and support mothers known to be HIV-positive to either: breastfeed while receiving ARV interventions OR avoid all breastfeeding as the strategy that will give infants the greatest chance of HIV-free survival; include in the policy a clear statement of the decision.
- Draft or update policy to reflect current evidence and experience on appropriate infant and young child feeding practices in general, as well as specifically in relation to HIV.
- Review other relevant policies, such as those on national HIV/AIDS programmes, nutrition, integrated management of childhood illness, safe motherhood, PMTCT, and feeding in emergencies, and ensure consistency with the overall infant and young child feeding policy.
- Develop concrete plans for implementing the policy, scaling up and sustaining it, including assessing the costs and resources, especially human resources, required to do so.
- Monitor policy implementation.
- Establish mechanisms for learning from experience and revising policy and resulting guidance as needed.

■ Promote and support appropriate infant and young child feeding practices, taking advantage of the opportunity of implementing the revised guidelines on HIV and infant feeding

Actions required:

- Advocate for the prioritization of infant and young child feeding issues in national planning, both inside and outside the health sector.
- Develop or update and implement guidelines on infant and young child feeding, including feeding for infants of HIV-positive women.
- Facilitate coordination on infant and young child feeding issues in implementing national HIV/AIDS programmes, especially as regards ARVs for pregnant and lactating women, as well as for integrated management of childhood illness, safe motherhood, and other approaches.
- Build capacity of health care decision-makers, managers, workers and, as appropriate, peer counsellors, lay counsellors and support groups for promoting breastfeeding and complementary feeding, good nutrition for pregnant and lactating women, primary prevention of HIV, use of ARVs for preventing HIV through breastfeeding, and for dealing with HIV and infant feeding.
- Assess and/or reassess health facilities for designation as Baby friendly and extend the Baby-friendly Hospital Initiative concept beyond hospitals, including through the establishment of breastfeeding support groups, and making provisions for expansion of activities to prevent HIV transmission to infants and young children to go hand-in-hand with promotion of

■ Provide adequate support to HIV-positive women to enable them to successfully carry out the recommended infant feeding practice, including ensuring access to antiretroviral treatment or prophylaxis

Actions required:

- Expand access to, and demand for, quality antenatal care for women who currently do not use such services.
- Expand access to, and demand for, HIV testing and counselling, before and during pregnancy and lactation, to enable women and their partners to know their HIV status, know how to prevent HIV and sexually transmitted infections and be supported in decisions related to their own behaviours and their children's health, and where required, access maternal nutritional support.
- Provide access to CD4 count testing and antiretroviral treatment or prophylaxis to HIV-positive women and their HIV-exposed infants according to international guidelines to ensure mothers' health and PMTCT.
- Revise pre-service and in-service training and related materials to reflect updated national policy and international recommendations.
- Support the orientation of health-care managers and capacity-building and pre-service training of counsellors (including lay counsellors) and health workers on infant and young child feeding in the context of HIV, including being able to understand and support the national recommendation while supporting mothers who make other decisions