

# What Women Need to Know about HIV and Infant Feeding!

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*"This epidemic unfortunately remains an epidemic of women."* Michel Sidibé, Executive Director of UNAIDS

A combination of factors has contributed to the risk of female HIV infection, particularly in young women aged 15-24.<sup>1</sup>

**Lack of Knowledge** – In 2004 UNAIDS reported that up to 50% of young women in high prevalence countries did not know the basic facts about AIDS.<sup>1</sup>

**Biological Factors** – Women may be biologically more susceptible to HIV infection, and young women, whose reproductive tracts are immature, are at greatest risk.

**Social Factors** – While levels of HIV infection among men rise slowly, peaking when men are in their mid- to late thirties, prevalence among women rises rapidly at a young age, with higher rates than men and peaking when women are in their late twenties. Sexual violence is widespread and heightens women's risk of infection. In South Africa, 10% of sexually active young women say they were forced into having sex. Women are often unable to negotiate the terms of their sexual interactions with male partners, particularly within marriage. While marriage may serve as a way to protect men who have sex with men against possible prosecution and stigma, recent data on HIV infection patterns in India reveal that 90% of women were infected within long-term relationships.<sup>2</sup>

**Economic Factors** – A lack of independent resources may force women to engage in unsafe sex, or to exchange sex for money or material favours as a means of survival. In Africa, transactional sex, particularly between young women and older men, is widely accepted.

AS A RESULT, More than half of people living with HIV globally are women and 76% of all HIV-positive women live in sub-Saharan Africa, yet less than half the number of countries who report to UNAIDS have a specific budget for HIV activities related to women.<sup>2</sup>

## HIV and Infant Feeding

### **Rate (%) of mother-to-child transmission of HIV In the absence of any intervention<sup>3</sup>**

- During pregnancy – 5 to 10%
- During labour and delivery – 10 to 20%
- Through mixed breastfeeding for 18 to 24 months – 10 to 20%

### **With Interventions to reduce transmission**

- Through exclusive breastfeeding 3 to 6 months – 1.3% to 4%<sup>4 5</sup>
- Through continued breastfeeding 15 to 18 months after exclusive breastfeeding for 3 months – 5.3% to 5.6%<sup>4, 6</sup>
- With maternal HAART from 18-34 weeks gestation through, labour and delivery and 6 months' exclusive breastfeeding - 0.28%<sup>7</sup>
- With maternal HAART, exclusive breastfeeding for 6 months and continued breastfeeding with complementary feeding through 12 months – 2%.<sup>8</sup>

### **Replacement feeding, mixed feeding, premature weaning**

- Artificial feeding is not safe in resource-poor countries where babies are at greater risk of death and disease due to lack of sanitation and potable water, and inaccessible or unaffordable health care, than transmission of HIV through breastfeeding. Feeding other foods and liquids as well as breastfeeding (mixed feeding) before 6 months greatly increases the risk of transmission of HIV. Recent

research confirms that withholding breastfeeding from birth or in later months provides no child survival advantage in developing countries.<sup>9 10</sup>

## **UN Guidelines for Infant Feeding**

### **◆ Outside the context of HIV**

The World Health Organization and UNICEF recommendations on breastfeeding are as follows: initiation of breastfeeding within the first hour after the birth; exclusive breastfeeding for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding.<sup>11</sup>

### **◆ Current WHO HIV and infant feeding recommendations<sup>12</sup>**

- National or sub-national health authorities should decide whether health services will principally counsel and support HIV-positive mothers to either:
  - Breastfeed and receive antiretroviral interventions (ARVs) or
  - Avoid all breastfeeding
- as the strategy that will most likely give infants the greatest chance of HIV-free survival.
- HIV-positive mothers should receive lifelong ARV therapy/prophylaxis to reduce transmission through breastfeeding and provide their infants with the most likely chance of survival.
- Where ARVs are available, HIV-positive mothers are recommended to breastfeed until 12 months of age. When ARVs are not (immediately) available, breastfeeding may still provide infants with a greater chance of survival. While ARV interventions are being scaled up, national authorities should not be deterred from recommending that HIV-infected mothers breastfeed as the most appropriate infant feeding practice in their setting.
- Breastfeeding should be exclusive for the first 6 months of life, and should be continued until 12 months with appropriate complementary foods.
- Infants and young children who are already HIV-infected should be breastfed in accordance with recommendations for the general population, ie exclusively for the first 6 months with continued breastfeeding for up to 2 years or beyond.
- Breastfeeding should only stop once a nutritionally adequate and safe diet without breast milk can be provided and weaning should be gradual. ARV prophylaxis should be continued for one week after breastfeeding is fully stopped.
- Non-breastfed infants should be provided with safe and adequate replacement feeds, or heat-treated, expressed breastmilk, to enable normal growth and development. Replacement feeding should only be undertaken when explicit conditions regarding safety and sustainability are met.

### **Women's Nutritional Needs**

- One of the most valuable ways of helping HIV-infected women is to protect their nutritional status. Reduced appetite, poor nutrient absorption, and physiological changes can lead to weight loss and malnutrition in HIV-infected people. Asymptomatic HIV infection increases energy needs by an estimated 10%, and symptomatic infections increase requirements by up to 30%.
- Lactation also increases nutritional requirements by 300-500 Kcal per day. To support lactation and maintain maternal reserves, breastfeeding women (whether infected or not) should consume the equivalent of about one extra meal per day. HIV-positive women with low appetites should be encouraged to eat well by ensuring that food is available, appetizing and nutritious.<sup>13</sup>
- Nevertheless, researchers in Zambia recently found that although longer duration of breastfeeding by HIV-infected women was associated with less weight gain, it may

be metabolically regulated so that women with low body mass are protected from excess weight loss.<sup>14</sup>

### What Women Need

- For women to get the best help and support in the face of HIV, it is essential that they know their status. Therefore, the first priority is to promote the availability and uptake of voluntary counseling and testing.
- Mothers known to be HIV-infected should be provided with lifelong ARV therapy and prophylactic interventions to reduce HIV transmission through breastfeeding according to WHO recommendations. Every effort should be made to accelerate access to ARVs for both maternal health and prevention of HIV transmission to infants.<sup>13</sup>
- Skilled counselling and support in appropriate infant and young child feeding practices and ARV interventions to promote HIV-free survival of infants should be available to all pregnant women and mothers.<sup>13</sup>

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<sup>1</sup> UNAIDS AIDS Epidemic Update 2004, [http://data.unaids.org/pub/Report/2004/2004\\_epiupdate\\_en.pdf](http://data.unaids.org/pub/Report/2004/2004_epiupdate_en.pdf)

<sup>2</sup> UNAIDS 2010, Global Report on AIDS [http://www.unaids.org/documents/20101123\\_GlobalReport\\_em.pdf](http://www.unaids.org/documents/20101123_GlobalReport_em.pdf)

<sup>3</sup> De Cock KM, et al Prevention of mother-to-child HIV transmission in resource-poor countries; translation research into policy and practice. JAMA 2000;283:1175-1182

<sup>4</sup> Iliff PJ et al Early exclusive breastfeeding reduces the risk of postnatal HIV-1 transmission and increases HIV-free survival. AIDS 2005, 19:699-708

<sup>5</sup> Coovadia HM et al Mother-to-child transmission of HIV-1 infection during exclusive breastfeeding in the first 6 months of life: an intervention cohort study. Lancet 2007 March 31;369:1107-16.

<sup>6</sup> Coutsooudis A 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 2001;15:379-387

<sup>7</sup> Shapiro RL, et al Antiretroviral Regimens in Pregnancy and Breast-Feeding in Botswana. New England Journal of Medicine 2010;362:2282-94, <http://content.nejm.org/cgi/reprint/362/24/2282.pdf>

<sup>8</sup> Ngoma M and Silverman MS Interim Results of HIV Transmission Rates Using a Lopinavir/ritonavir based regimen and the New WHO Breast Feeding Guidelines for PMTCT of HIV International Congress of Antimicrobial Agents and Chemotherapy (ICAAC) Chicago II, Sep19,2011. H1-1153, <http://www.icaac.org/index.php/component/content/article/9-newsroom/169-preliminary-results-of-hiv-transmission-rates-using-a-lopinavirritonavir-lpvr-aluvia-based-regimen-and-the-new-who-breast-feeding-guidelines-for-pmtct-of-hiv->

<sup>9</sup> Coovadia H, Kindra G. Breastfeeding to prevent HIV transmission in infants: balancing pros and cons. Curr Opin Infect Dis. 2008 Feb;21(1):11-5.

<sup>10</sup> Kuhn L and Aldrovandi G, Survival and Health Benefits of Breastfeeding Versus Artificial Feeding in Infants of HIV-Infected Women: Developing Versus Developed World. Clin Perinatol 37 (2010) 843-862

<sup>11</sup> WHO 2009, Infant and young child feeding: Model Chapter for textbooks for medical students and allied health professionals, [http://www.who.int/child\\_adolescent\\_health/documents/9789241597494/en/index.html](http://www.who.int/child_adolescent_health/documents/9789241597494/en/index.html)

<sup>12</sup> WHO 2010. Guidelines on HIV and infant feeding [http://www.who.int/child\\_adolescent\\_health/documents/9789241599535/en/index.html](http://www.who.int/child_adolescent_health/documents/9789241599535/en/index.html)

<sup>13</sup> Reducing Mother-to-Child Transmission of HIV among Women who Breastfeed. Washington, D.C. LINKAGES, 2004 <http://rehydrate.org/breastfeed/breastfeeding-hiv-pmtct.htm>

<sup>14</sup> Murnane P. M. et al Lactation-associated Postpartum Weight Changes among HIV-infected Women in Zambia, Int J Epidemiol 2010, doi:10.1093/ije/dyq065