

From the desk of Pamela...

Co-coordinator
WABA Breastfeeding and HIV Task Force



A word of warning about formula-feeding for HIV-exposed babies

"Here are two estimates. If you choose breastfeeding, you would of course have HIV infection. You would have about 300,000 per year in the world. But if you avoided breastfeeding, the mortality would be about 1.5 million per year. So on the balance of probabilities for poor women in the developing world, there is no other choice than to breastfeed their infants. You shouldn't devise policies for the rich few. There are some but the majority of HIV-infected women are poor."

Dr Hoosen Coovadia, on the risk of mortality from acquisition of HIV through breastfeeding vs no breastfeeding at all¹

The question of safe infant feeding was one of the most talked-about topics at the recent 14th Conference on Retroviruses and Opportunistic Infections held in Los Angeles from 25-28 February 2007. Although the WHO HIV and infant feeding recommendations had already been revised in advance of the new data presented during the conference, Theo Smart of AIDS MAP writes that questions remain as to the full implications of the recent reports and how, exactly, programmes in different resource-limited settings should be adapted to best provide support to mothers with HIV. Some experts believe that an individualised approach for each mother's infant feeding decisions is necessary, while others believe that women in most resource-constrained settings should no longer be advised to avoid breastfeeding or wean early.¹

Dr Tracy Creek of the CDC re-presented her 2006 investigation into the death of 534 infants due to formula feeding in Botswana, where all HIV-positive mothers are advised to formula-feed and provided with free supplies.² There had been 3.5 times the usual number of cases of diarrhoea and 25 times the usual number of deaths. In the country's second-largest referral hospital, it was found that no breastfeeding children died, nor was HIV-infection in mother or child a risk factor for death. In fact 35% of the mothers were not infected, showing that spillover is rife. Fifty-two percent of formula-fed babies showed no growth in the previous 3 months, 26% developed kwashiorkor or marasmus and malnutrition, especially in HIV-uninfected children, was a significant risk factor for the almost one-quarter of non-breastfed children who died.

In addition, 4 other studies reported on the consequences of early cessation of breastfeeding. In Uganda 11% of uninfected infants no longer breastfeeding by 3 months, in accordance with national guidelines, had serious gastroenteritis and infant deaths rose sharply within 3 months after breastfeeding cessation.⁴

In Malawi mothers were counseled to exclusively breastfeed and then stop all breastfeeding at 6 months. Among HIV-uninfected infants gastroenteritis was increased and mortality was 22% higher than in an earlier trial at the same site where breastfeeding had lasted for a median of 732 days without premature weaning.

HIV-positive mothers receiving HAART in the Kenyan Kisumu Breastfeeding Study (KiBS) were encouraged to exclusively breastfeed for 6 months and then wean rapidly before discontinuing medication. Diarrhoea and hospitalizations for HIV-uninfected infants were compared to an earlier vertical transmission study where infants were breastfed beyond 12 months. Rapid weaning increased the risk of diarrhea, hospitalization and death. It was concluded that these risks should be anticipated during weaning for HIV-exposed infants in resource-poor settings following WHO infant feeding guidelines.⁶

Dr Moses Sinkala, reporting on the Zambian Exclusive Breastfeeding Study found that stopping breastfeeding at 4 months resulted in less than anticipated reduction of HIV transmission, and did not improve HIV-free survival among uninfected

infants at 24 months. There was also a substantial mortality risk for infected babies associated with stopping breastfeeding early. Dr Sinkala suggested that PMTCT programmes should strongly encourage breastfeeding into the 2nd year of life for HIV-infected infants.⁷

Dr Hoosen Coovadia from South Africa described the protective effects of breastmilk, and particularly stressed that exclusive breastfeeding is associated with a low rate of HIV transmission, infant morbidity and mortality compared to mixed breastfeeding.⁸

Dr Marc Bulterys of the CDC in Atlanta asked why we are doing so badly? He said that due to the unviability of safe and acceptable alternatives to breastfeeding for most HIV-infected women, it is critical to identify interventions to maximally reduce postnatal HIV transmission through breast milk. He also identified that while only about 1% of HIV-infected mothers currently receive it, ART for eligible mothers could reduce MTCT in resource-

poor settings by over 75%.⁹

A rational policy to protect HIV-exposed infants from inappropriate formula-feeding will enhance overall child survival in resource-poor settings where >95% of pediatric HIV-infection occurs. UNLESS all conditions for fulfilment of safety and sustainability of replacement feeding can be assured, then HIV-positive mothers should receive guidance and assistance to breastfeed their babies

- exclusively for the first six months of life, and
- with the addition of appropriate complementary foods for two years or more.

The new WHO guidelines need to be disseminated urgently to everyone working with HIV-positive mothers. Importantly, full implementation of a more conservative public health approach can only be achieved by updating the existing training course for healthworkers, published in 2000¹⁰ with the current evidence base.

¹ Smart T. : Infant feeding policy debated at the Conference on Retroviruses and Opportunistic Infections AIDSmap HATIP #82, 13th March 2007 <http://www.aidsmap.com/en/news/1F9F2D35-099B-42A5-94EA-0FEC977756E6.asp>

² WHO HIV and Infant Feeding Technical Consultation, Consensus Statement (Oct 2006 in Geneva) (English and French) http://www.who.int/child-adolescent-health/publications/NUTRITION/consensus_statement.htm

³ Creek T, Anelo W, Kim A, Lu L, Bowen A, Finkbeiner T, Zaks L, Masunge J, Shaffer N and Davis M. Role of Infant Feeding and HIV in a Severe Outbreak of Diarrhea and Malnutrition among Young Children, Botswana, 2006, Poster session 137, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles 25-28 February, 2007. <http://www.retroconference.org/2007/Abstracts/29305.htm>

⁴ Onyango C, Mmiro F, Bagenda D, Mubiro K, Musoke P, Fowler M, Jackson J, Early Breastfeeding Cessation among HIV-exposed Negative Infants and Risk of Serious Gastroenteritis: Findings from a Perinatal Prevention Trial in Kampala, Uganda Poster Session 138, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, 25-28 February, 2007 <http://www.retroconference.org/2007/Abstracts/29008.htm>

⁵ Kafulafala G, Thigpen M, Hoover D, Li Q, Kummwenda, Mipando L, Taha T, Mofenson L and Fowler M, Post-weaning Gastroenteritis and Mortality in HIV-uninfected African Infants Receiving Antiretroviral Prophylaxis to Prevent MTCT of HIV-1, Poster Session 138, 14th Conference on Retroviral and Opportunistic Infections, Los Angeles, 25-28 February, 2007

⁶ Ref: Thomas T, Masaba R, van Eijk A, Ndiro R, Nasokho P, Thigpen M and Fowler M. Rates of Diarrhea Associated with Early Weaning among Infants in Kisumu, Kenya, Poster Session 138, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles, 25-28 February, 2007 <http://www.retroconference.org/2007/Abstracts/29105.htm>

⁷ Sinkala M, Kuhn L, Kankasa C, Kasonde P, Vwalika C, Mwiya M, Scott N, Semrau K, Airovandi G, Thea D and Zambia Exclusive Breastfeeding Study Group (ZEBSS) No Benefit of Early Cessation of Breastfeeding at 4 Months on HIV-free Survival of Infants Born to HIV-infected Mothers in Zambia: The Zambia Exclusive Breastfeeding Study, Session 136, Poster Session, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles 25-28 February, 2007 <http://www.retroconference.org/2007/Abstracts/28331.htm>

⁸ Coovadia H, Coutoudis A, Rollins N, Bland R and Newell M. Prevention of HIV Transmission from Breastfeeding, Plenary Session, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles 25-28 February, 2007. <http://www.retroconference.org/2007/Abstracts/30552.htm>

⁹ Bulterys M, PMTCT of HIV in Resource-poor Settings - Why Are We Doing So Badly? Symposium Urgent Issues in the Developing World, 14th Conference on Retroviruses and Opportunistic Infections, Los Angeles 25-28 February, 2007, <http://www.retroconference.org/2007/Abstracts/30585.htm>

¹⁰ WHO, UNICEF, UNAIDS. HIV and infant feeding counselling: a training course. WHO/SCH/CAH/00.4; UNICEF/PD/NUT/JJ00-3; UNAIDS/99.57Ed. Geneva: World Health Organization, 2000. http://www.who.int/child-adolescent-health/New_Publications/NUTRITION/HIV_Inf_Feeding/Trainers_Guide.pdf