

Post natal decision-making on infant feeding among HIV+ mothers

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Presentation to the PATH Satellite on HIV and infant feeding, International AIDS Conference, Toronto, 15 August 2006



The goal of infant feeding counseling in PMTCT

- Reduce postnatal HIV transmission
- Do so in such a way as NOT to increase infant mortality
- Thus we want to achieve the optimal HIV-free survival rate in each setting



HIV AND INFANT FEEDING



FRAMEWORK FOR PRIORITY ACTION



WHO's recommendation

“When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life” and should then be discontinued as soon as it is feasible* .

*This would normally imply the same conditions as for replacement feeding from birth, that is, acceptable, feasible, affordable, sustainable and safe.



Counselors must assist mothers to balance risks

- A non-breastfed baby is immune-incompetent
- The risk of HIV transmission through mixed feeding is fairly well known, but for exclusive breastfeeding (EBF), only for first 3 mo
- The risk of death from not breastfeeding in Africa is very difficult to estimate, since it is so rarely done and its impact rarely measured



Estimates of risk of death from not breastfeeding

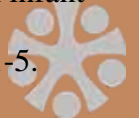
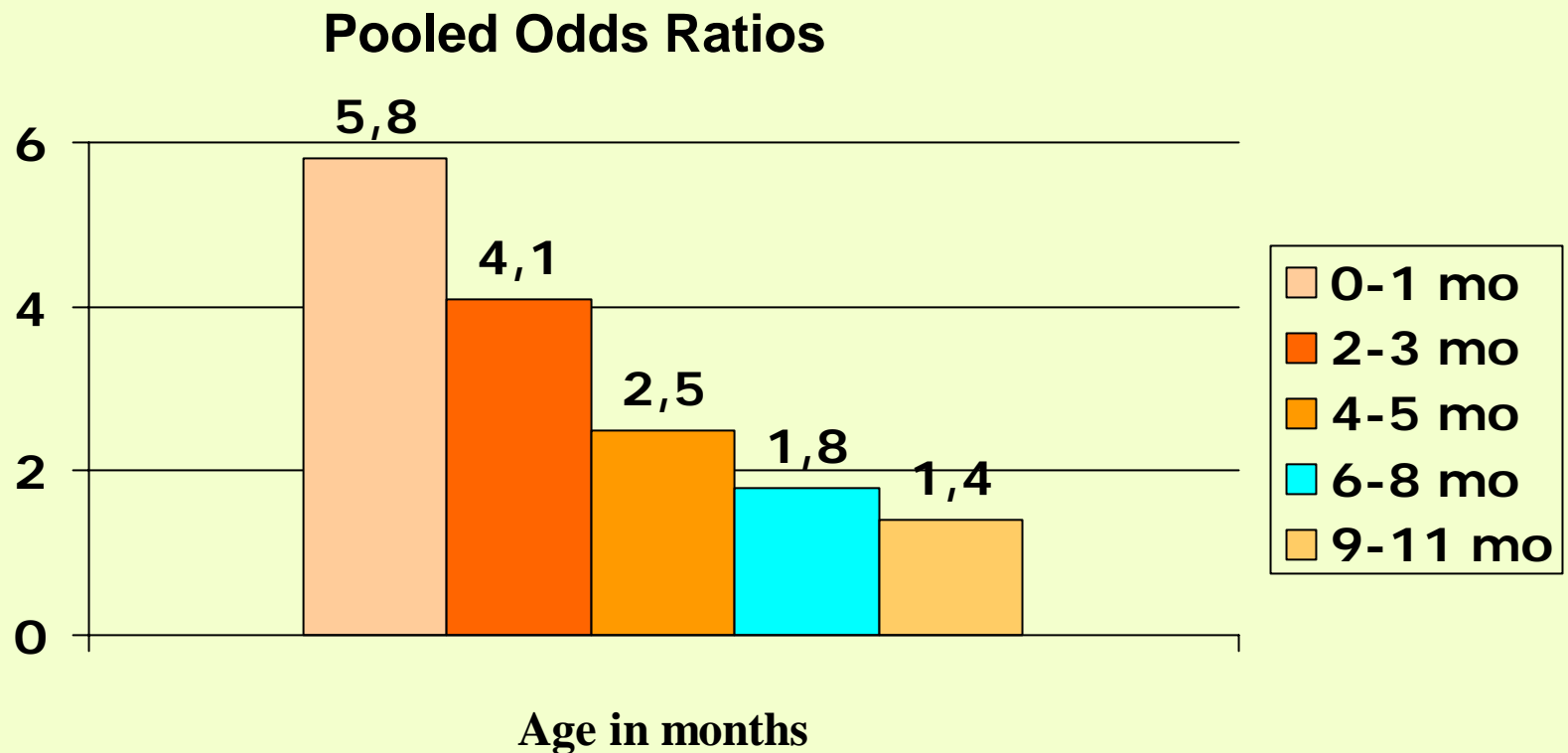
- Bahl et al* found the ROR was 10.5 from 6 wk to 6 mo in Ghana, India and Peru
- Rutstein** estimated ROR was about 2.7 for 6-12 mo

*Bahl R, et al. Infant feeding patterns and risks of death and hospitalization in the first half of infancy: multicentre cohort study. Bull World Health Organ. 2005 Jun;83(6):418-26.

**Rutstein SO. Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: evidence from the demographic and health surveys. Int J Gynaecol Obstet. 2005 Apr;89 Suppl 1:S7-24.



Infant mortality risk from not breastfeeding



Relative odds ratio of death from not breastfeeding by education of mother

ROR, 6-11 months:

- OR = 5.1, lowest tercile (least education)
- OR = 2.0 medium tercile
- OR = 1.1 highest tercile



What is the risk of HIV transmission via breastfeeding?

- The postnatal transmission rate for partially breast-fed infants has so far been found to be between 0.73% (ZVITAMBO, Zimbabwe),¹ and 0.84% (Kenya)² per month of exposure to partial feeding
- The rate for infants exclusively breastfed for 3 mo was 0.22% between 1.5-6 mo of age, ZVITAMBO
- The rate for mixed fed infants formerly EBF was 0.47% per month, ZVITAMBO

¹Iloff PJ, et al. Early exclusive breastfeeding reduces the risk of postnatal HIV-1 transmission and increases HIV-free survival. *AIDS*. 2005 Apr 29;19(7):699-708.

²Richardson BA, et al. Comparison of human immunodeficiency virus type 1 viral loads in Kenyan women, men, and infants during primary and early infection. *J Virol*. 2003 Jun;77(12):7120-3.



Breastfeeding in Rwanda, DHS 2005

- At 4-5 mo, 81% were exclusively breastfeeding the day before survey
- At 32-35 mo, 55% were still BF
- At 6-7 mo, 1.3% are not BF
- 83% of babies 8-9 mo old get solid foods



Implications for HIV

- EBF is easier to achieve in Rwanda than elsewhere.
- Health workers **MUST** maintain good communication with HIV+ mothers and support them in reducing this duration
- Pressuring HIV+ to stop breastfeeding at 6 mo if they cannot do so will destroy the opportunity of supporting mothers for early cessation at a later stage



Achieving a decreased period of postnatal exposure to HIV

- At about 12 months, the relative risk of death from not breastfeeding greatly declines
- Even only reducing the average period of BF to 18 months would cut postnatal transmission in Rwanda in half, the same impact on postnatal transmission as single dose NVP has on perinatal transmission



HIV transmission at 6-18 months

- 6 months of EBF may lead to even lower rates of transmission
- In Rwanda many mothers exclusively breastfeed for 7-8 months
- ART rollout will greatly lower postnatal transmission levels, since most takes place among mothers with low DC4 counts



How much postnatal transmission will occur with different breastfeeding patterns

- 36 mo mixed feeding=26%
- 6 mo EBF + 30 mo mixed=16%
- 6 mo EBF + 6 mo mixed=5%



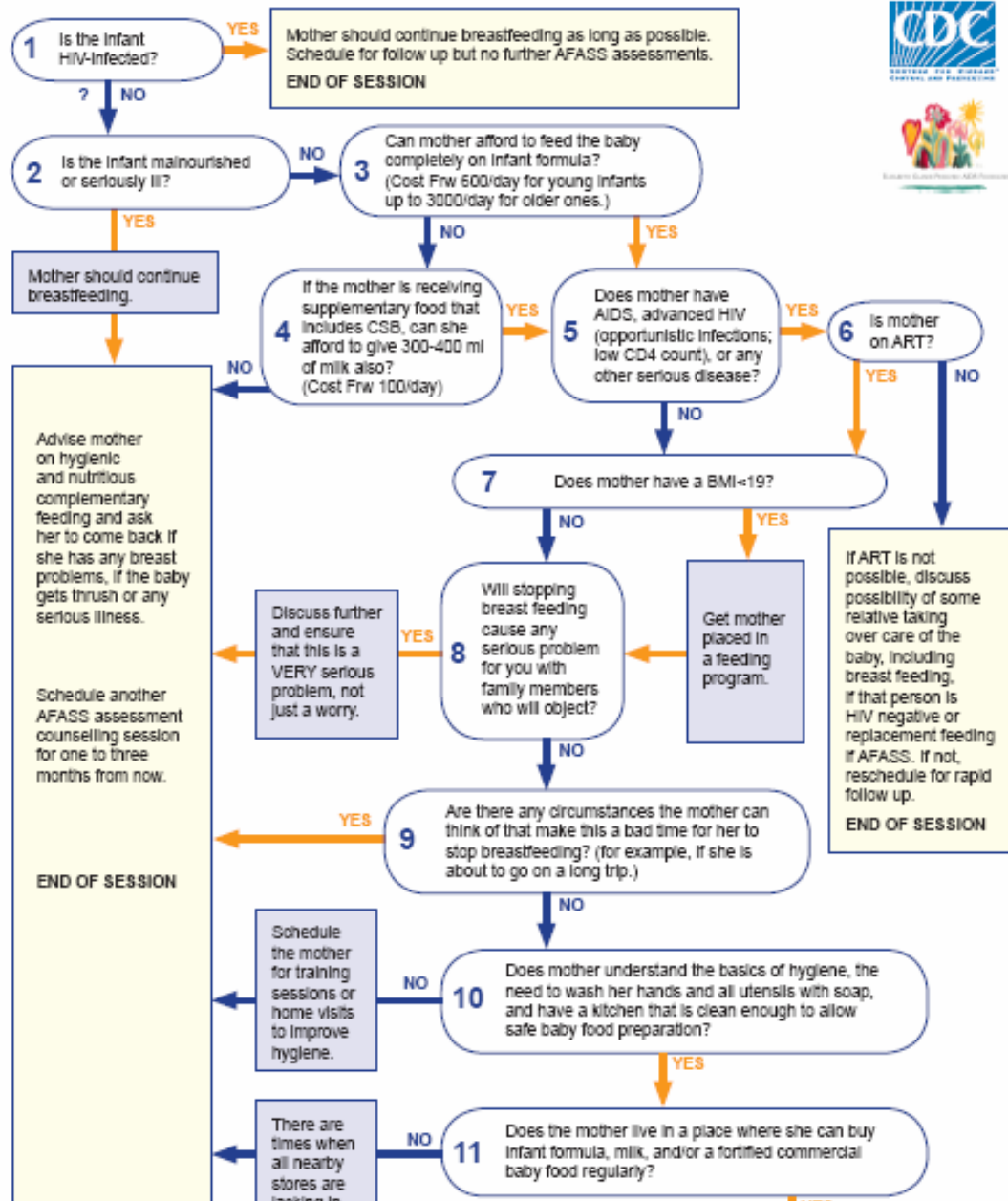
HIV + death with 6 mo EBF + 6 mo partial BF compared to replacement feeding from birth in Rwanda

- BF: 3.5% die + 5% HIV=9%
- RF: $3.5 \times 5.1 = 18\%+0=18\%$ (WHO, lowest education tercile)
- RF: $3.5 \times 2.7 = 9.5\%$ (Rutstein)
- All HIV+ women stopping BF at 6 mo thus is likely to be unwise
- The best outcome will result from careful individual counseling



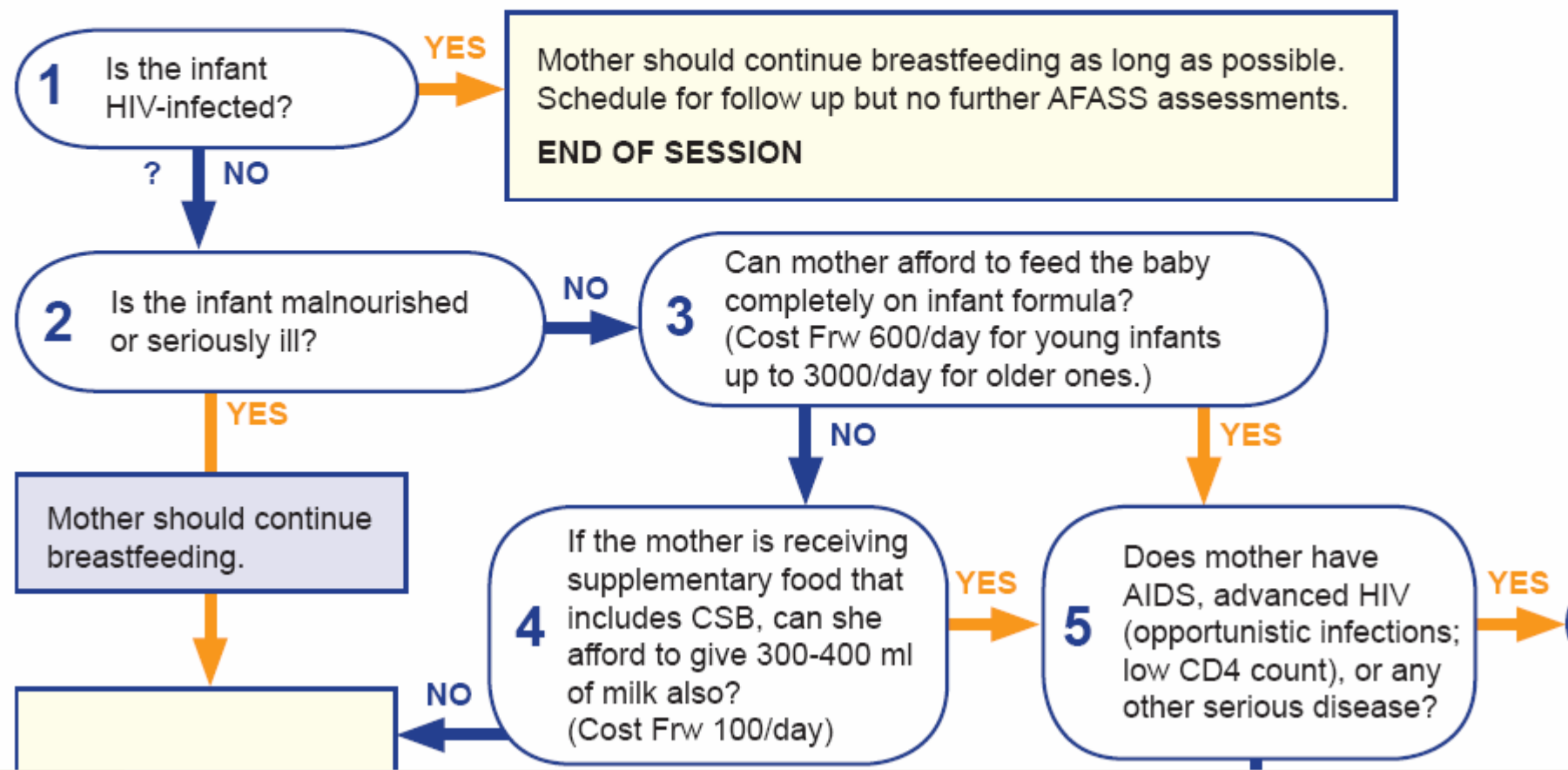
Infant age: 6–12 months

Is it acceptable, feasible, affordable, sustainable, and safe (AFASS) to stop breastfeeding now?



Infant age: 6–12 months

Is it acceptable, feasible, affordable, sustainable, and safe (AFASS) to stop breastfeeding now?



Advise mother on hygienic and nutritious complementary feeding and ask her to come back if she has any breast problems, if the baby gets thrush or any serious illness.

Schedule another AFASS assessment counselling session for one to three months from now.

Discuss further and ensure that this is a VERY serious problem, not just a worry.

7 Does mother have any breast problems?

NO

8 Will stopping breast feeding cause any serious problem for you with family members who will object?

NO

YES

8

Are there any circumstances...

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[www.path.org/news/an060813_](http://www.path.org/news/an060813_AIDSconf_infant_feeding.php)
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