

Infant Feeding and HIV prevention: Ensuring HIV Free Child Survival

International Conference on Actions to Strengthen linkages between Sexual and reproductive Health and HIV/AIDS

Mumbai 4-8 Feb 2007 INDIA

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Outline

- The History and Context
- Transmission risks
- Feeding options and HIV free survival
- Action recommendations

- The History and Context

**International Colloquium : Tanzania Sept 2002.
Infant Feeding and HIV: A Regional Colloquium for
Asia Pacific**

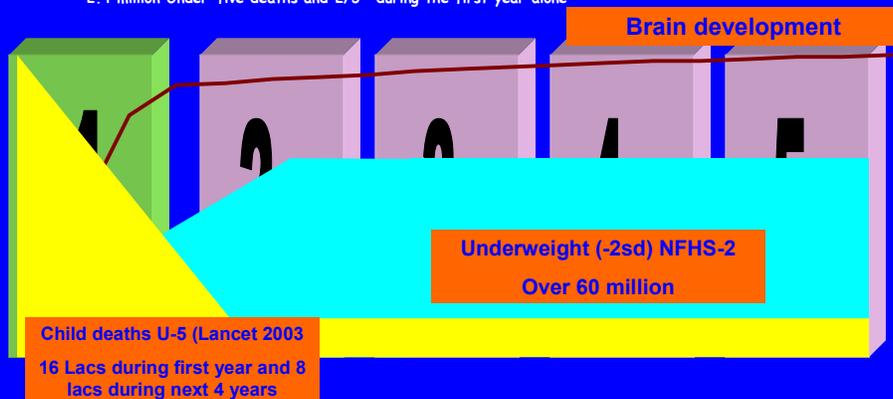
Jointly Organized by the IBFAN//BPNI and UNICEF
in collaboration with NACO, ICMR, Planning Commission and several other partners
28-29 November 2003



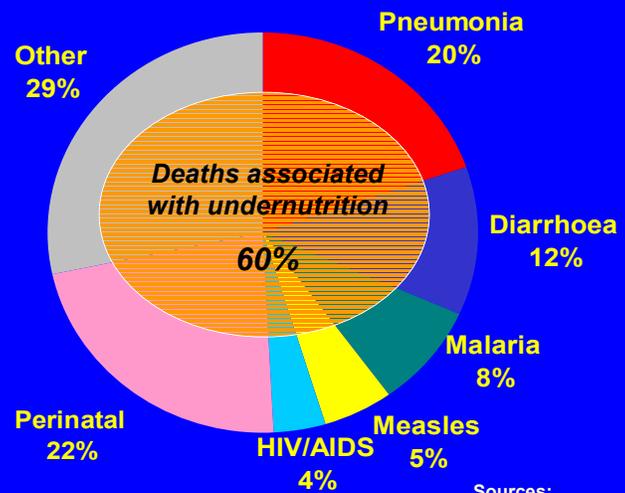
India's Children: State of nutrition and survival



- Malnutrition strikes in infancy from 11 % at 0-6 months reaches its peak by 18 months.
- 36 million under three/ nearly 60 million U-5 are underweight and undernourished thus underdeveloped
- 2.4 million Under-five deaths and 2/3rd during the first year alone

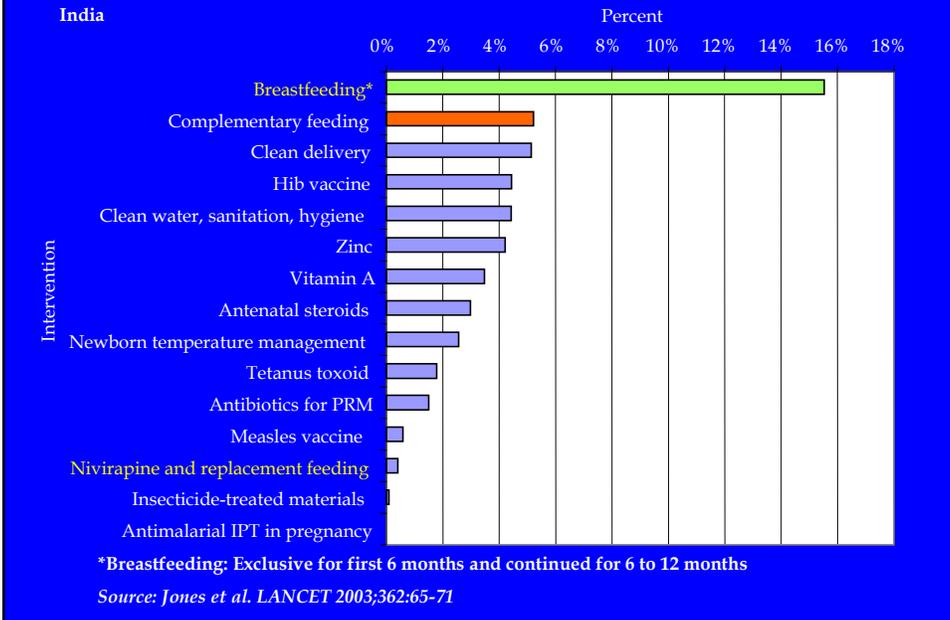


Major Causes of Death among Children around the World

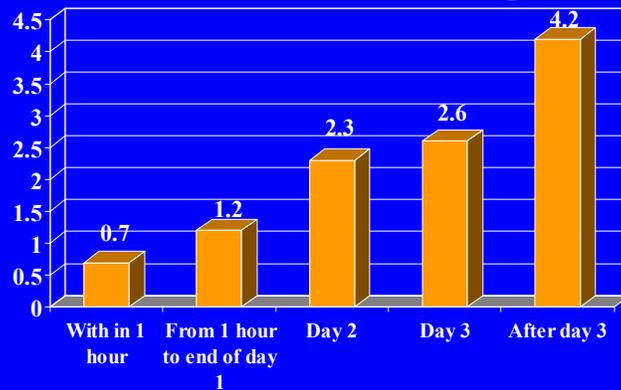


Sources:
EIP/WHO, Caulfield LE, Black RE.
Year 2000

Under-5 deaths preventable through universal coverage with individual interventions (2000)

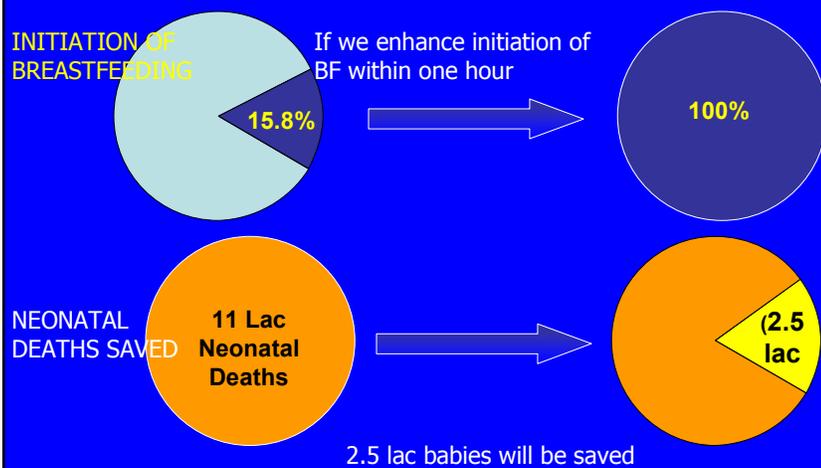


Risk of neonatal mortality according to time of initiation of breastfeeding



Pediatrics 2006;117:380-386

1st hour initiation cuts 22% of all deaths



Pediatrics 2006;117:380-386

Situation of PTCT in India

27 million pregnancies per year



0.88% prevalence

More than 200,000 infected pregnancies

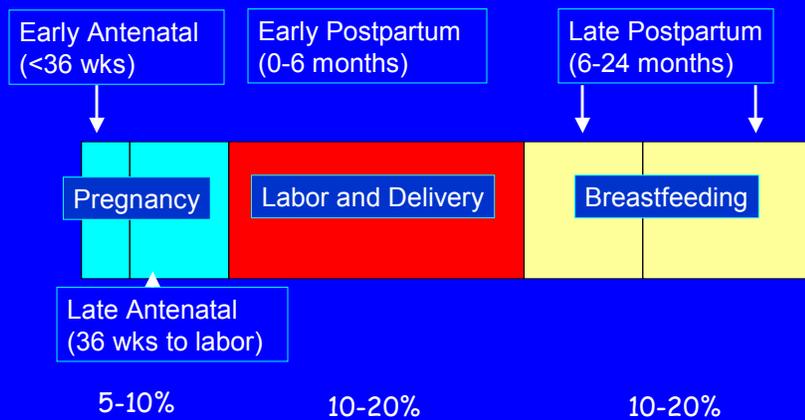


30% transmission

Annual Cohort of more than 60,000
infected infants

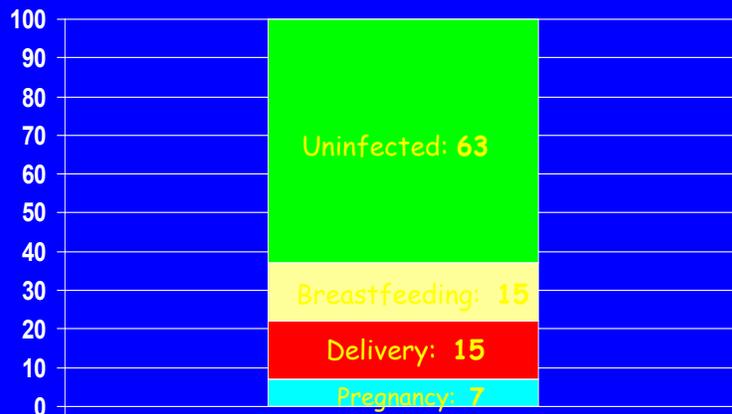
- Transmission risk

Timing of Transmission



Adapted from N Shaffer, CDC

MTCT in 100 HIV+ Mothers by Timing of Transmission

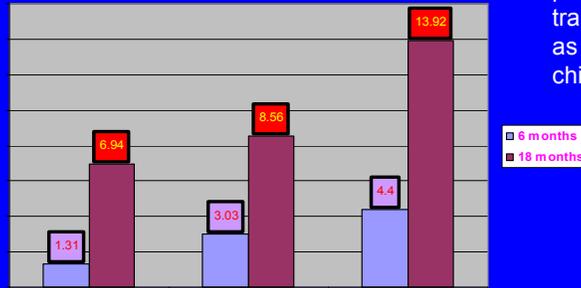


Risk Factors of transmission

- Feeding method/mixed vs. exclusive breastfeeding
- Immune/health status of mother
- Plasma viral load
- Breast inflammation (mastitis, abscess, bleeding nipples)

Exclusive breastfeeding Prevents HIV in infants

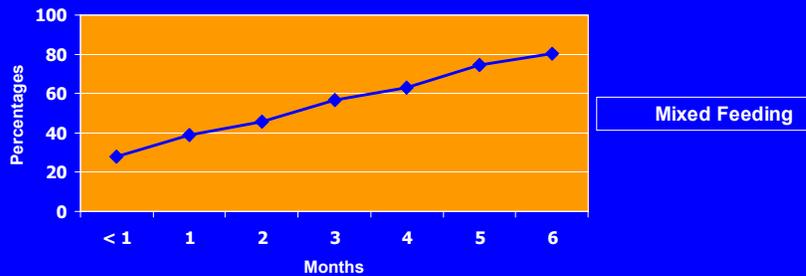
Cumulative % with HIV infection according to early breastfeeding pattern



Most mothers are either negative or not tested, better prevent transmission as well as ensure HIV free child survival

Early Exclusive Breastfeeding reduces the risk of postnatal HIV-1 transmission and increases HIV-free survival. AIDS 2005 19:699-708

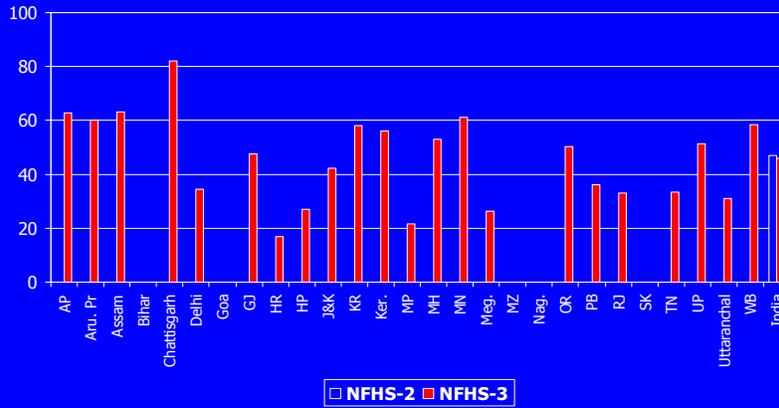
Mixed feeding rapidly goes up (NFHS-2-1999)



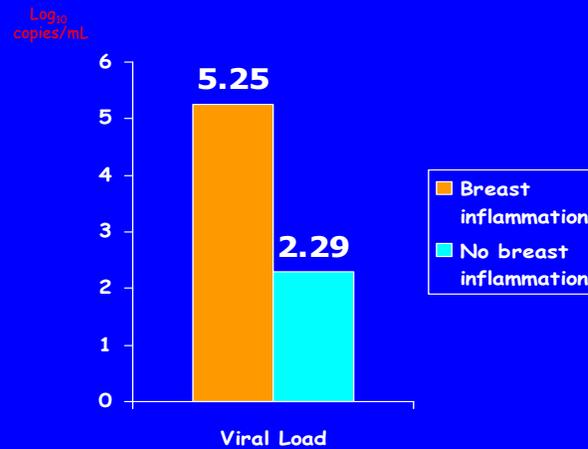
Women were generally getting infected with HIV at a younger age and if not detected early on, they may continue to bear children who might be HIV-infected

http://www.nacoonline.org/guidelines/guideline_9.pdf

% Exclusive Breastfeeding 0-6 months(NFHS-3 ,22 states)



Association between breast inflammation and breast milk virus



Hoffman et al, 2003

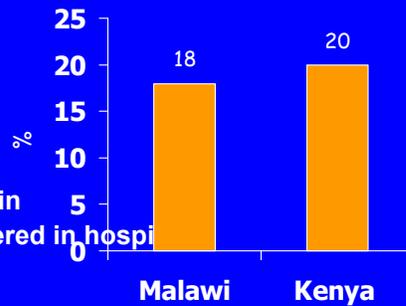
Breast Pathology

Prevalence of breast pathologies on clinical exam. In HIV+ women in Africa

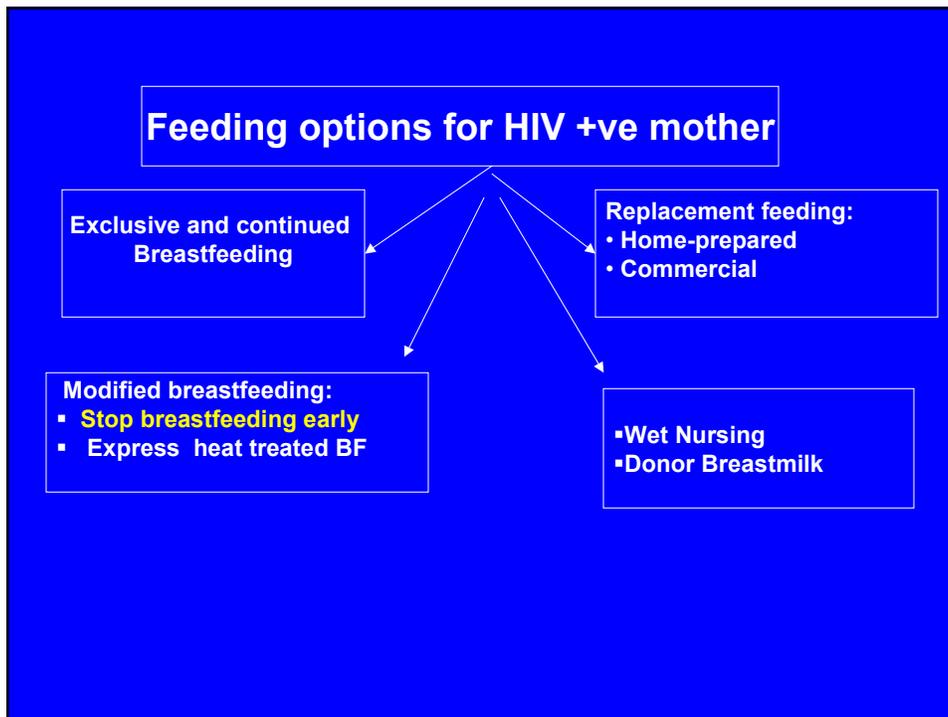
- Mastitis: 7-11%
- Nipple lesions: 11-13%
- Breast abscesses: 12%
- India: 600 hospital study of BFHI in 2000 revealed 13% women who delivered in hospital faced breastfeeding problems

(Embree et al; John et al; Semba et al)

Estimated fraction of MTCT
due to breast infection



- Feeding options and HIV free survival



For Replacement Feeding Consider

A = Acceptability Will not BF stigmatize mother?

A= Affordability Can family afford animal milk feed?

F= Feasibility Is it feasible?

S= Safety can family safely give artificial feed?

S= Sustainability Can family sustain adequate RF.

Higher Rates of Hospitalization for Non-Breastfed Infants of HIV+ Mothers in a PMTCT Program in Pune, India

	<u>BF</u>	<u>Non-BF</u>
sample	62	86
hospitalizations	0	27*
deaths	0	4

*p<0.0001, no significant differences between BF and non-BF for any other infant or maternal characteristics

Phadke et al, 2003

HIV and infant feeding risk model

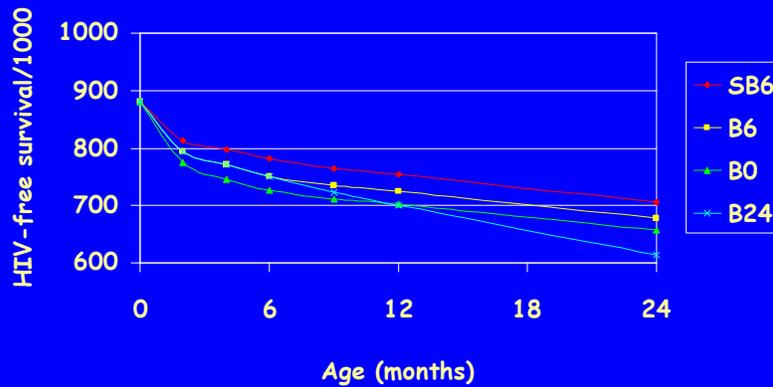
4 feeding strategies compared:

B ₂₄	no postnatal intervention: BF "as usual" for 24 months
B ₀	no BF by HIV+ women: commercial infant formula provided
B ₆	BF initiation and early breastfeeding cessation at 6 months for HIV+ mothers
SB ₆	BF initiation and early cessation at 6 months for HIV+ mothers, and ARV for the mother/baby, intervention reduces BF transmission by 50%

Ross and Labbok 2004

Cumulative HIV-free Survival Among Infants of HIV-infected Mothers

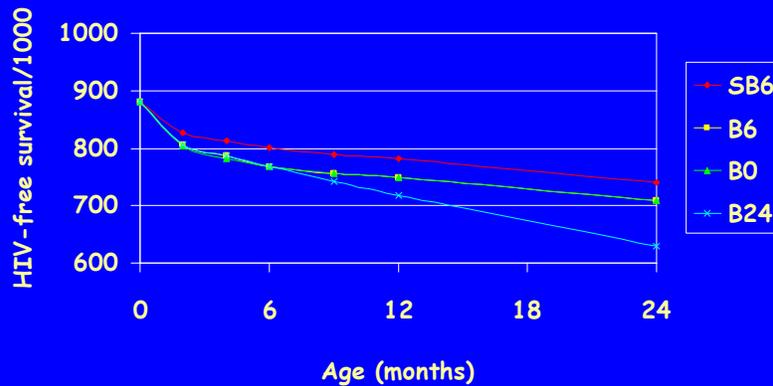
IMR=91 (average for sub-Saharan Africa)



Safer BF for 6 months by HIV+ mothers gives the best outcome. Continued BF by HIV+ mothers gives the worst result. At 6 months, No BF gives worst outcome. (Ross and Labbok, 2004)

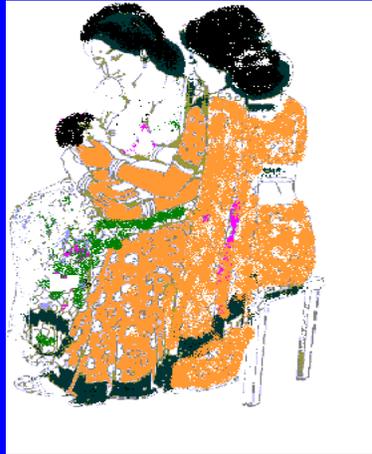
Cumulative HIV-free Survival Among Infants of HIV-infected Mothers

INDIA: IMR=66 (SRS, 2001)



Breastmilk feeding Options

- Understand socio-cultural situation
- Describe good BF technique;
- Explain method BF early;
- Discuss wet nursing
- Explain how to heat-treat expressed BM.



PPTCT Center Delhi



Make replacement feeding safer for HIV+ women

- Provide safe water & environmental conditions
 - rural and urban areas may vary
- Family support, community understanding
- Postnatal follow-up and enhanced care
 - essential child health interventions
- Screen mothers, target use to those most at risk
- Take measures to prevent SPILLOVER unnecessary use of RF
 - need to strengthen efforts to support optimal infant feeding for all

Replacement Feeding

1. Suitable BM Substitute
2. Regular Supply
3. Preparation
4. Cost
5. Hygiene
6. Contraception



Constraints

1. Skilled Counselors in IF & HIV not many
2. Knowledge of health Managers & Practitioners not up to date.
3. Few studies on risk assessments

Pre-Training Assessment of VCCTC / PPTCT Counselors in major hospitals of New Delhi, 2004

BPNI, NACO, IBFAN, UNICEF

- None: Knew about AFASS, about Ten Steps for Successful BF, about national recommendation on optimal infant feeding
- 12.5% refer HIV +ve mother to pediatrician for IF
- 12.5% give option to HIV +ve mother for BF/ RF
- 25% advised top feeding, none explained preparation
- 50% expressed lack of skills for counseling in HIV and AIDS
- 100% expressed lack of skills in counseling for IF

BPNI's Resources : Skills Training Course

- 7- day package BREASTFEEDING COMPLEMENTARY FEEDING and HIV and IF(3 in 1 training course):**IYCF Counselling specialists**
- National trainers are available

5 key Recommendations to move and strengthen linkages

1. Find out KAP of managers and health professionals
2. Conduct studies to assess risk with different infant feeding strategies.
3. Bring all stakeholders on the same level of understanding on the issues.
4. Enhance State capacity for Skills training in IYCF
5. Have one IYCF counselling specialist at least at PHC /Block level

