Perspectives on HIV/AIDS and Breastfeeding

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July 10, 2001
Introduction: HIV/AIDS

- First recognized in 1981
- Virus identified in 1983
- Initially in East and Central Africa
- Two major types HIV-1 and HIV-2
- Main route of transmission - sexual
- Also through blood and blood products
- Also mother to child - pregnancy, delivery, breastfeeding
What we know...

- AIDS is a deadly disease
- Some infants will contract virus prenatally
- Some will contract during delivery
- Some will contract while breastfeeding
- Little research in area of transmission
- HIV virus has been isolated from all body fluids
- Innocation of virus into milk kills it
What we don’t know...

• What is the mechanism of transmission through breastfeeding?
• What is the risk of transmission through breastfeeding? Exclusive? Mixed?
• What is the effect of breastfeeding on HIV+ infants? HIV-negative infants?
• What is the effect of lactation on HIV infected women?
• What is the effect of HIV on human milk?
Should mothers who are HIV + be advised not to breastfeed?
Current Recommendations

- LLLI: Not making a recommendation at this time
- US: Mothers who are HIV + not breastfeed (AAP Committee on Pediatrics AIDS, ACOG, CDC, Public Health Service)
- International: 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
Risk to infants of HIV-infected mothers

- Approximately 20 percent of infants of HIV-infected mothers are infected before or during delivery.
- If all HIV-infected mothers breastfeed, another 14 percent of their infants will be infected through breastfeeding.
- This means that about two-thirds of children of HIV-infected women will not become infected.
Factors affecting maternal-infant transmission

- Maternal
- Virologic
- Obstetric
- Fetal
- Infant
Estimated number of people living with HIV/AIDS, end 1999
Top 10 Countries by Rate

1. Botswana
2. Swaziland
3. Zimbabwe
4. Lesotho
5. Zambia
6. South Africa
7. Namibia
8. Malawi
9. Kenya
10. Central African Republic

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<th>Country</th>
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<td>1. Botswana</td>
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<td>2. Swaziland</td>
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<td>3. Zimbabwe</td>
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<td>10. Central African Republic</td>
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Estimated number of people living with HIV/AIDS, end 1999
Top 10 Countries by Population

- South Africa
- Nigeria
- Kenya
- Zimbabwe
- United Rep.
- Dem.
- Mozambique
- Zambia
- Uganda
- Malawi

[Graph showing total and HIV+ populations for each country]
Risk of MTCT: HIV Prevalence- 50% and BF Rate- 90%
Risk of MTCT: HIV Prevalence - 25% and Breastfeeding Rate - 67%

- Mother (100%)
- HIV+ (25%)
- HIV+ Preg/BF (8%)
- HIV+BF (2%)
Current Research

• Nduati
  – 50% increase in transmission with breastfeeding (15-17%)
  – Greater mortality among breastfeeding mothers
  – Same mortality for infants breastfed or formula fed

• Coutsoudis
  – No transmission with 6 months “Exclusive” breastfeeding
  – Highest transmission with mixed feeding
  – No increase in mortality among breastfeeding mothers
Informed Choice

“Did you know that your baby can get HIV from breastfeeding?”
“Gee, I don’t know if I’ve got AIDS, so maybe I’d better bottle-feed just in case”
“Avoidance of all breastfeeding by the whole population always produces the worst outcome.”

HIV Test Specificity

- False positive rates of tests varied between 10% for some at home tests to <0.5% to 1% for those done in laboratories.
- If there are 4 million births/year in the US and all women are tested; this could result in 20,000 to 40,000 women a year falsely being told they were HIV+.
Perspectives

- Child Health
- Socio-Cultural
- Ethical/Moral
- Political
- Emotional/Psychological
- Basic Needs
- Access to resources
- Economic $$$
- HIV Prevention
Child Health

- Individual Health
- Population/Public Health
- Mortality
- Morbidity
Socio-Cultural

- Education
- Economic power
- Costs of stigma
- Standard of living
- Orphans
- Transmission rate
- Prevalence of HIV+ women
- Incidence of new infection
Ethical/Moral

- Testing when treatment is not available
- Advocating choice without resources
- Starting substitute feeding when it is not sustainable
- Making recommendations without careful risk analysis
- Doing research on pregnant women and infants
Political

- Political Stability
- GDP
- GDP per capita
Emotional/Psychological

- Fear
- HIV/AIDS phobia
- “Messy”
- Need for a sympathetic victim
- Need for measurable positive intervention
Basic Needs

- Food security
- Water availability
- Healthcare availability
  - testing resources
  - treatment availability
- Economic ability
- Fuel access and availability
- Time/energy
Access to resources

- Geographic isolation
- Urbanization
Economic $$$

- HIV/AIDS money pie and how it is split
- Commercial interests-pharmaceutical industry
- Disproportionate income/health care cost ratio
- Needs of resource poor nations
- Who will pay
HIV Prevention

- Primary prevention
- Maternal prevention
- Family planning
- Reduction in transmission
Appraisal of alternatives when breastfeeding is not chosen

- Mother’s own milk (MOM) - Heat Treated
- Banked Human Milk
- Wet Nurses
- Generic Formula
- Proprietary Formula
- Adapted Locally Available Milk
- Modifications to other local non-milk foods
Priorities

• Child Survival
• Child Health
• Child Nutrition
• Preserve Family Structure
• Protect the Rights of Women and Children
• Maximize Scarce Resources