

# Perspectives on HIV/AIDS and Breastfeeding

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# 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
- Innoculation 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**

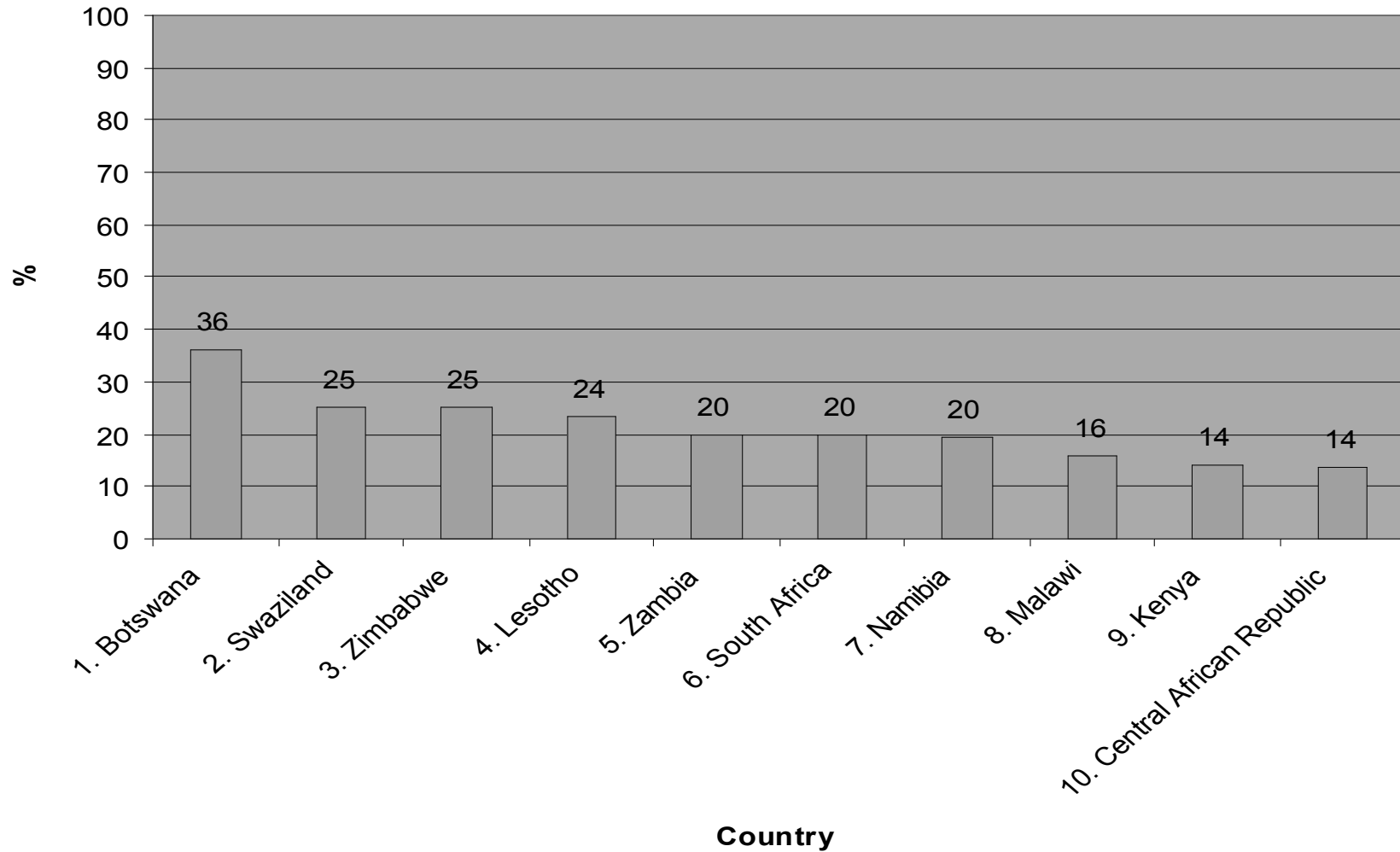
- Approximately 20 percent of infants of HIV-infected mothers are infected before or during delivery.
- If all HIV-infected mothers breastfeed, another 14 percent of their infants will be infected through breastfeeding.
- This means that about two-thirds of children of HIV-infected women *will not* become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

# Factors affecting maternal-infant transmission

- Maternal
- Virologic
- Obstetric
- Fetal
- Infant

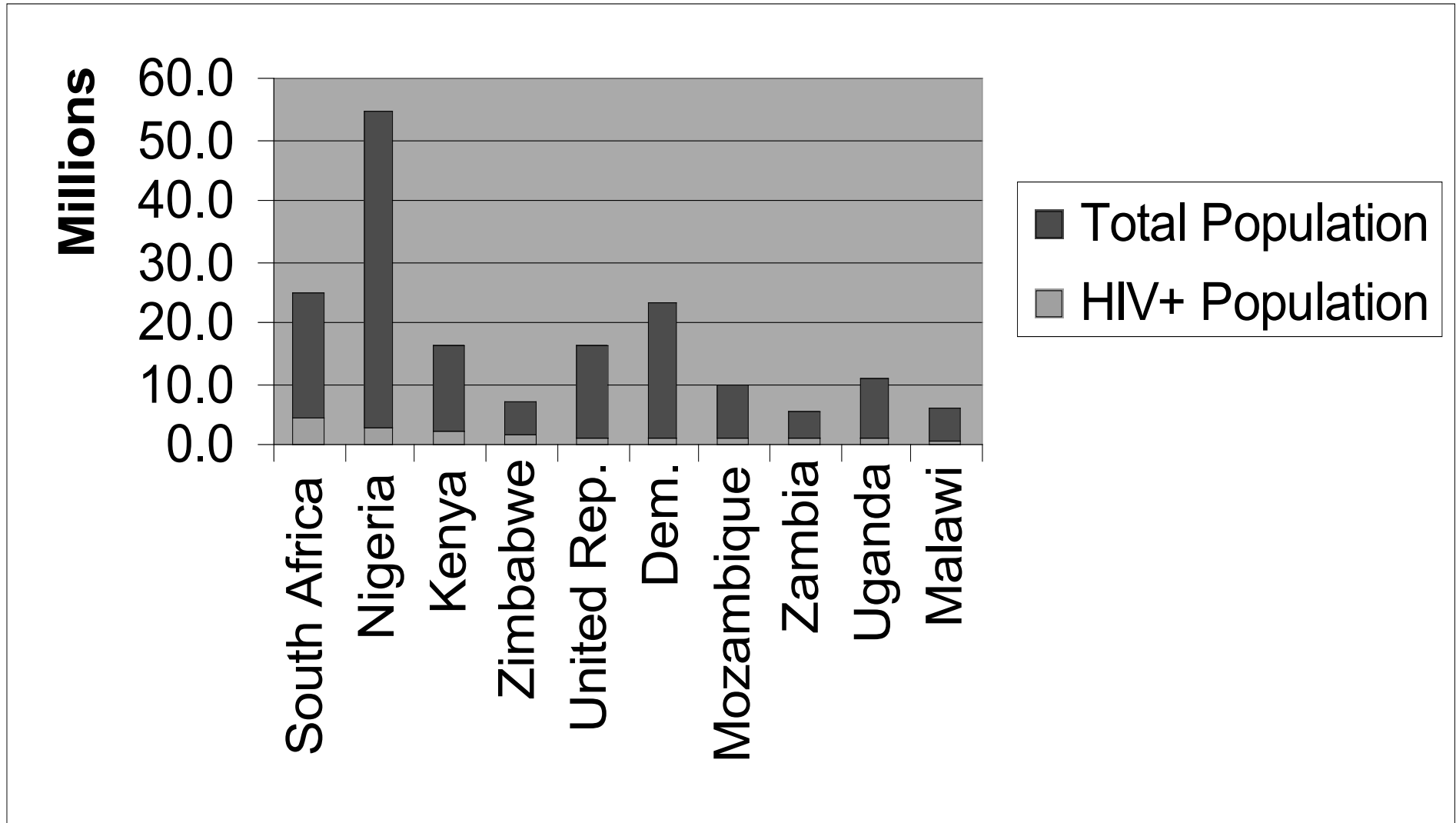


# Estimated number of people living with HIV/AIDS, end 1999 Top 10 Countries by Rate

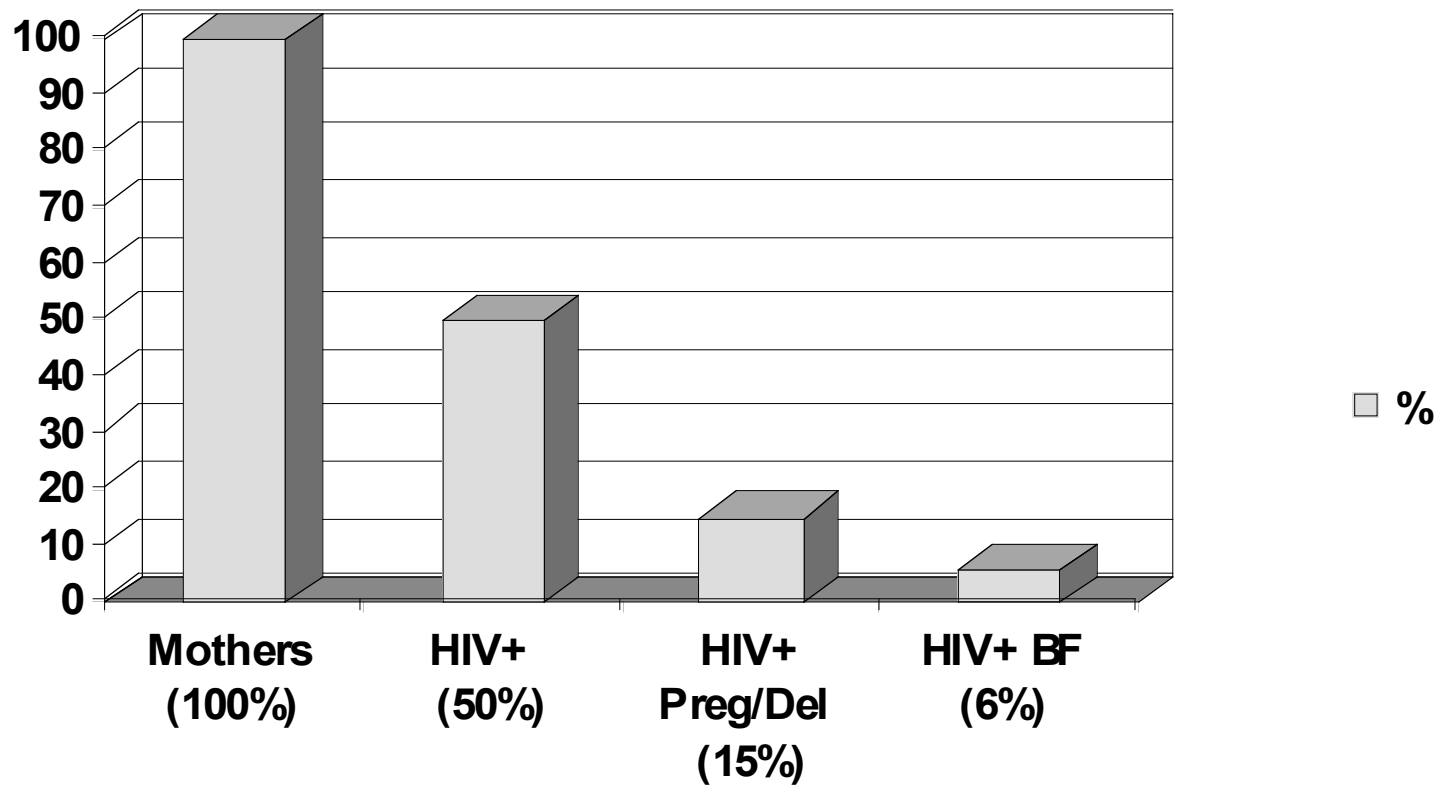


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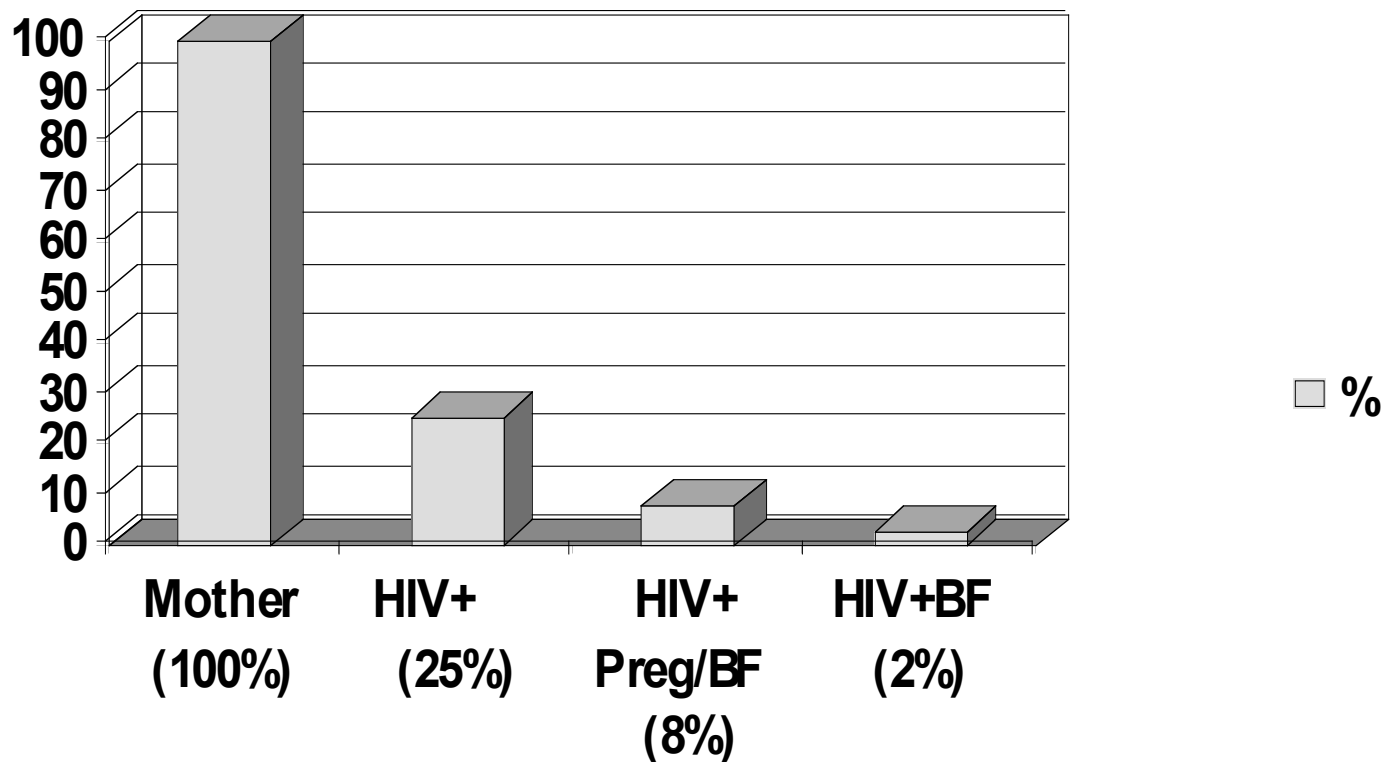
## Top 10 Countries by Population



# Risk of MTCT: HIV Prevalence- 50% and BF Rate- 90%



# Risk of MTCT: HIV Prevalence- 25% and Breastfeeding Rate- 67%



# Current Research

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

Kuhn L, Stein, Infant Survival, HIV Infection and feeding  
alternatives in less developed Countries. AM J Public  
Health.1997 Jun;87(6):926-31



# 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

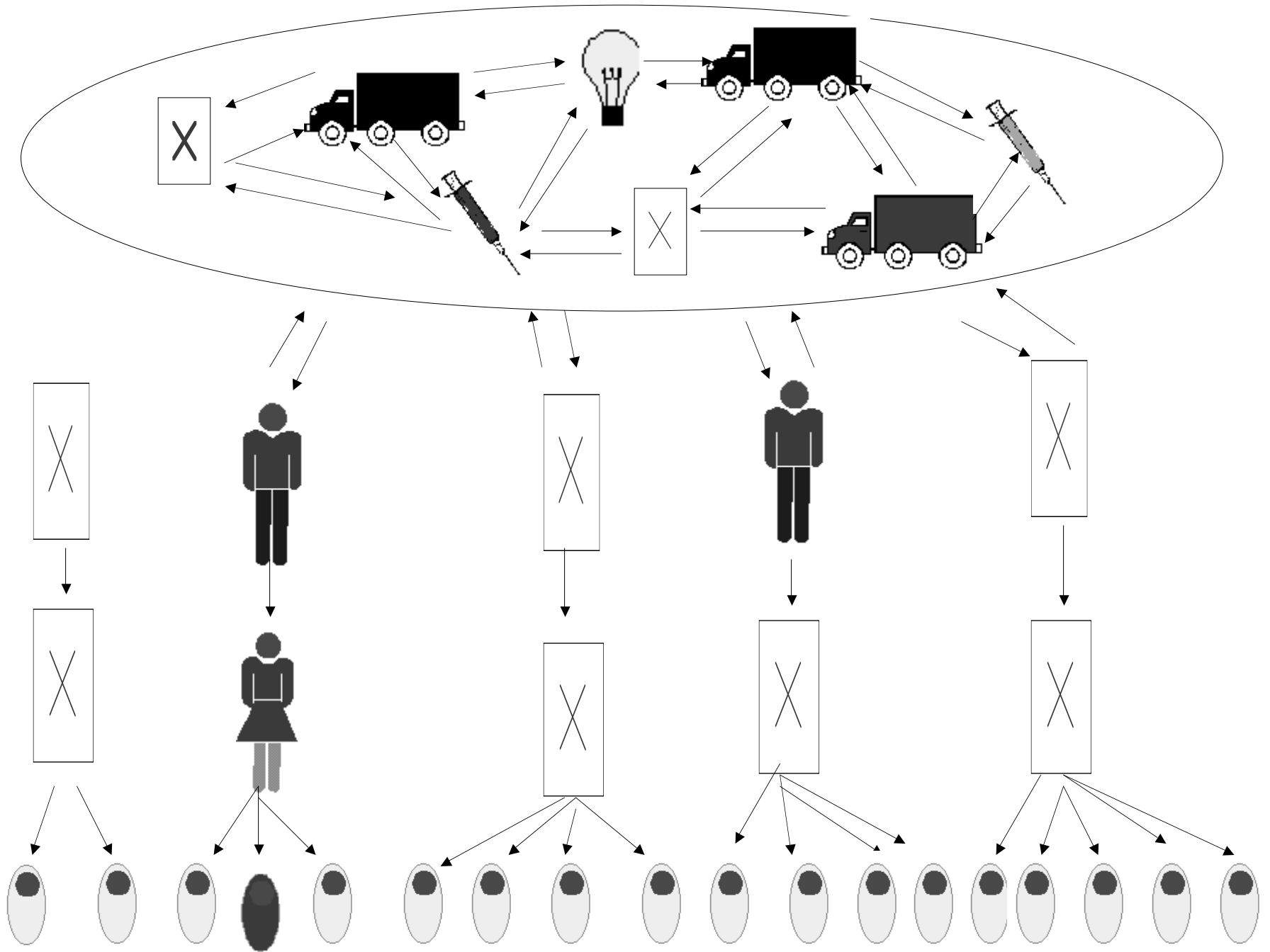


# Access to resources

- 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