



# ZAMBIA

Total Country Population (2001) 10 million

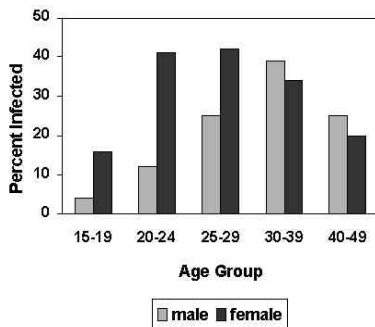
## Project Catchment Areas

Ndola District in Copperbelt Province, Kabwe District in Central Province, Mtendere Clinic in Lusaka District, and Livingstone District in Southern Province

## Country Profile

The UNAIDS Report on the Global HIV/AIDS Epidemic (2002) estimates that 21.5 percent of Zambians between the ages of 15 and 49 were infected with HIV at the end of 2001, with the rate rising to 25 percent among young women and 31 percent among women in urban antenatal care clinics. In Ndola District, the first site of LINKAGES activities, the number of HIV-infected women is 1.4 times greater than the number of infected men. Most Zambians do not know their HIV status.

### HIV Prevalence by Age and Sex in Ndola, Zambia, 1998



Source: Ministry of Health/Central Board of Health, September 1999

About 25,000 infants, representing over one-third of Zambian infants born to HIV-infected women, are infected with HIV each year in utero, during delivery, or through breastfeeding. Because breastfeeding can transmit HIV, infant feeding counseling can help mothers in areas of high HIV prevalence make informed choices of infant feeding methods, balancing breastfeeding's lifesaving benefits with the risk of HIV transmission.

Exclusive breastfeeding protects against severe diarrhea and acute respiratory infection, major causes of infant illness and death in Zambia and other sub-Saharan African countries. Studies in South Africa suggest that exclusive breastfeeding actually may protect infants against HIV, while mixed feeding (breastmilk plus infant formula or other breastmilk

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substitutes) presents the greatest danger. While more than 95 percent of Zambian infants are breastfed during their first year of life, only 26 percent of infants 0-3 months old and 5 percent of infants 4-5 months old are exclusively breastfed.

## Zambia Integrated PMTCT Program

In 1997 the USAID-funded LINKAGES Project conducted an assessment visit to Zambia in collaboration with the Central Board of Health through the National Food and Nutrition Commission (NFNC). Responding to the NFNC's request for assistance in developing guidelines for the National Policy on Breastfeeding Practices and HIV/AIDS Transmission from Mother to Child, LINKAGES reviewed existing efforts to prevent mother-to-child transmission (PMTCT) and identified resources needed to implement the interventions in the proposed policy guidelines.

The result of this cooperation was a decision to establish a demonstration project focusing on infant feeding in an antenatal clinic in an area of high HIV prevalence. Ndola District was chosen for the demonstration site because of its strong community mobilization against AIDS. The Ndola Demonstration Project (NDP), initiated in 1999 as part of Zambia's national PMTCT efforts, piloted the integration of infant feeding and HIV counseling and testing into maternal and child health (MCH) and community services. Elements of the integrated approach are listed in the box on page 2.

Several Zambian districts expressed interest in adapting or replicating the groundbreaking Ndola approach, and in 2001 the Government of Zambia requested expansion of the model. In 2002 the LINKAGES Integrated PMTCT Program began implementation in northern Ndola District, in Mtendere Clinic in Lusaka District, and in Kabwe and Living-

## Zambia Integrated PMTCT Program

**Goal:** To enable women to make and act effectively on informed choice to feed their infants optimally in the context of high HIV prevalence

**Objective:** To integrate improved counseling on infant feeding, maternal nutrition, voluntary counseling and testing (VCT) for HIV, and antiretroviral (ARV) prophylaxis in health and community services

LINKAGES offers the following technical assistance on infant feeding in an integrated, comprehensive approach to prevent mother-to-child transmission of HIV:

- ♦ **Training** in infant feeding in the context of child survival and PMTCT and skills building for program managers, health care providers, and community workers in infant feeding counseling, negotiation, and community outreach
- ♦ **Advocacy for national policy** to protect and support safe infant feeding practices and integrated PMTCT that includes the Baby-Friendly Hospital Initiative
- ♦ **Formative research** through focus group discussions, household trials, in-depth interviews and surveys of mothers and families to provide information on knowledge, attitudes, beliefs, practices, and the local context for infant feeding decisions
- ♦ **Behavior change communication** to develop appropriate targeted strategies, messages, media, and community and health center activities to help mothers make informed infant feeding and reproductive health decisions
- ♦ **Assessment and strengthening of community capacity** for counseling and referrals
- ♦ **Monitoring and evaluation** through collecting and analyzing data with local partners on key infant feeding and PMTCT indicators before and after interventions to improve program planning

stone Districts (see map on page 1), lying along the country's main transport route.

Formative research was conducted in Ndola District before the demonstration project to develop locally appropriate and feasible infant feeding recommendations for HIV-positive and HIV-negative mothers and their families. The research included focus group discussions, key informant interviews, observation of household food preparation and feeding, a market survey of available replacement foods and breastmilk substitutes, and household trials of improved feeding and caring practices. Research results were used to inform subsequent policy, behavior change communication (BCC), and training strategies, as well as monitoring and evaluation instruments.

### Policy and Advocacy

LINKAGES has worked closely with the Ministry of Health to develop the National Infant and Young Child Feeding Policy and the Zambian Code of Marketing of Breastmilk Substitutes, both of which are nearing legalization. The program is intensifying efforts to enlist the support of national and district political, educational, and religious authorities in advocating for an optimal infant feeding policy in

the context of HIV/AIDS. LINKAGES also supports national and district efforts to celebrate World Breastfeeding Week in August and World AIDS Day in December.

### Behavior Change Strategies

In the first years of the program, BCC interventions focused on raising awareness about infant feeding and PMTCT and developing strong community support and quality counseling by health workers. This approach was successful in increasing knowledge in most areas related to HIV/AIDS.

The current strategy promotes an assertive, data-based approach to behavior change. Radio spots will reinforce a community campaign to encourage optimal PMTCT behaviors. "Ambassadors against AIDS" will be recruited and religious and other community leaders trained to hold discussion groups, use counseling cards, and present dramas to promote positive behavior. Existing training materials will be revised to reflect key skills for health workers to use in individual and group contacts. Health workers will use negotiation and other techniques to help people try and overcome barriers to practicing new behaviors. PMTCT media spots and print materials will reinforce these messages.

## Infant Feeding Counseling

Counseling women to make informed infant feeding choices is a major component of the integrated PMTCT approach. LINKAGES trains health workers and community service providers to counsel women sensitively and accurately on the safest feeding options for their situation. This does not mean simply telling women the risks and benefits of different feeding options, but understanding their social and household context, communicating complex concepts, and providing emotional support. Infant feeding counseling messages are listed below.

### **Women who are HIV negative or of unknown status are counseled on:**

- Exclusive breastfeeding for the first 6 months
- Introduction of complementary foods at about 6 months
- Continued breastfeeding up to 2 years

### **Women who are HIV positive are counseled on:**

- Exclusive breastfeeding for the first 6 months
- Expressing, heat treating, and cup feeding breastmilk
- Wet nursing by an HIV-negative woman
- Transitioning (early cessation) from breastfeeding to replacement feeding by cup with commercial or home-prepared formula

### **All women, regardless of HIV status, are counseled on:**

- Avoidance of mixed feeding (breastfeeding plus breastmilk substitutes)
- Introduction at about 6 months of safe and appropriate soft staple foods and other locally available foods to be fed at least 3 times a day
- Prevention of HIV and sexually transmitted infections (STIs)
- Use of antenatal, labor and delivery, and post-partum health services
- Prevention of unwanted pregnancies
- Voluntary counseling and testing
- Optimal maternal nutrition during pregnancy and lactation

## Training and Skills Development

LINKAGES and its partners have developed a training program to help health workers and community service providers introduce and sustain infant feeding counseling, VCT services, and ARV prophylaxis (Nevirapine) in clinics in target areas.

### **Training of Health Care Providers**

The 12-day integrated infant feeding and PMTCT course used in the Zambia Integrated PMTCT Program built on existing infant feeding, HIV/AIDS, and reproductive health curricula and was refined after field testing and feedback from several hundred participants from Zambia and other countries in sub-Saharan Africa. Topics covered in the syllabus include breastfeeding physiology and management, maternal and infant nutrition, infant feeding options in the context of HIV/AIDS, the epidemiology and treatment of HIV/AIDS, management of STIs and opportunistic infections, HIV testing, VCT, and basic counseling. During the training, participants observe breastfeeding practices at health facilities, learn about the experience of people living with HIV/AIDS, and prepare replacement feeds under conditions similar to those faced by most women in the communities.

A 6-day training of trainers workshop is held for participants from the earlier trainings to enlarge the pool of trainers qualified to conduct training in health facilities and communities.

An 8-week psychosocial counseling course and practicum are given to clinic and community health personnel who complete the basic and TOT courses. This course teaches skills in prevention and risk counseling, including the use of educational materials, and skills in infant feeding counseling for PMTCT.

### **Training of Community Service Providers**

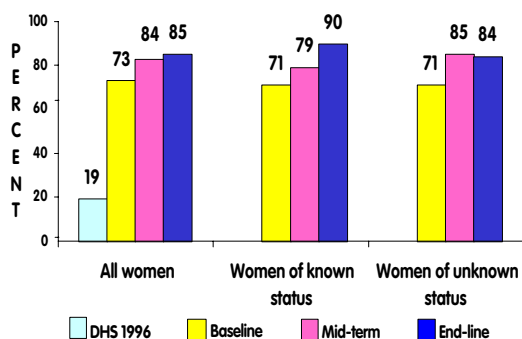
A modified version of the 12-day course is provided to members of neighborhood health committees, the HIV/AIDS Task Force, community health promoters, home health visitors, traditional birth attendants and healers, and people living with HIV/AIDS. Training of community service providers and on-the-job mentorship follow this training.

## Monitoring and Evaluation

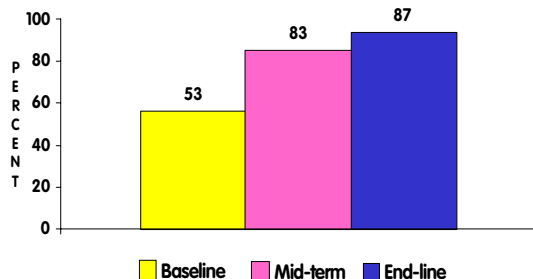
The Zambia Integrated PMTCT Program aims to increase infant feeding and PMTCT knowledge and skills of service providers and counselors, improve exclusive breastfeeding rates, increase VCT acceptability, and improve partner involvement. Some of the results of evaluations of the NDP (2000 baseline,

2001 mid-term, and 2002 end-line) are shown below. Findings suggest that it is possible for women of known and unknown HIV status to exclusively breastfeed up to 6 months. The project was also able to support the initiation of breastfeeding within 1 hour of birth, with the rate increasing significantly over time. Concurrently, the proportion of infants 0-5 months old experiencing a diarrheal episode in the previous 2 weeks decreased from 8.6 percent at mid-term to 6.1 percent at end-line.

**LINKAGES/Zambia NDP**  
Exclusive breastfeeding rate by HIV status  
(infants 0-5 months, clinic survey)



**LINKAGES/Zambia NDP**  
Timely initiation of breastfeeding in the first hour  
(infants 0-11 months, clinic survey)



**LINKAGES** is a USAID-funded program providing technical information, assistance, and training to organizations on breastfeeding, related complementary feeding and maternal dietary practices, the lactational amenorrhea method (a modern post-partum method of contraception for women who breastfeed), and PMTCT (to help mothers understand the balance of risks so they can make informed infant feeding choices).

**For more information on the Zambia country program and other LINKAGES activities, contact:**

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## Partners

A hallmark of the Zambia Integrated PMTCT Program is strong partnerships with government, nongovernmental organizations (NGOs), and donors. Partner roles and responsibilities are outlined below:

**The Central Board of Health** is the executing agency of the MOH and ensures that the project is implemented in accordance with health reform strategies.

**The National AIDS Control Program** oversees all HIV/AIDS programs in the country.

**The National Food and Nutrition Commission** coordinates national infant feeding-related activities and provides program guidance and coordination.

**District Health Management Teams** coordinate district health activities and oversee clinic and community health services, program planning, and implementation.

**LINKAGES** provides technical assistance and works with partners to advance program objectives through training, development of BCC materials, and monitoring and evaluation.

**The Horizons Project** conducts operations research in collaboration with partners to determine the effect of infant feeding counseling and VCT in MCH services on women's infant feeding decisions.

**The Zambia Integrated Health Program (ZIHP)** is a USAID bilateral program that supports community mobilization, BCC, and training.



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