

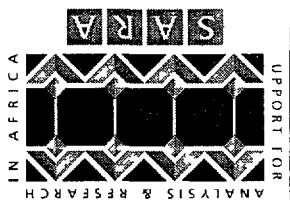
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Breastfeeding and Related Complementary Feeding and Maternal Nutrition

Nomajoni Ntombela, MCH Advisor, LINKAGES Project  
and  
Ellen Piwoz, Nutrition Advisor, SARA Project

November 29-December 12, 1998

# LINKAGES/SARA Trip Report Planning and initiating the formative research on HIV and infant feeding

LINKAGES/SARA Trip Report



PD-ABR-045

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**Planning and initiating the formative research on HIV**  
**and infant feeding**  
**November 29-December 12, 1998**

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FD-984-045

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**List of Acronyms**

Central Board of Health	CBOH
information, education, and communication	IEC
John Snow, Inc	JSI
maternal and child health	MCH
Ndola District Health Management Team	N-DHMT
National Food and Nutrition Commission	NFNC
United Nations AIDS	UNAIDS
United Nations Childrens Fund	UNICEF
United Nations Agency for International Development	USAID
volunteer counselling and training	VCT
Zambia Integrated Health Project	ZIHP

## Background

Since 1997, LINKAGES has been working in collaboration with the National Food and Nutrition Commission (NFNC) of Zambia on the development of a national breastfeeding policy and the operational guidelines for the HIV and infant feeding component of that policy. During the process of developing these guidelines it became clear that practical experience in the area of HIV and infant feeding was limited and that a demonstration project, which integrated improved infant feeding counseling and HIV voluntary counseling and testing into existing health and community services, was needed in order to develop practical recommendations for implementing these guidelines.

In July and October 1998, LINKAGES staff (Nomajoni Ntombela and Jean Baker) and consultant (Elizabeth Preble) visited Zambia to discuss further the idea of a demonstration project with the NFNC, Central Board of Health, and USAID mission. During these visits it was decided that the demonstration project would be carried out in Ndola (Urban, Copperbelt Region) in collaboration with the Ndola District Health Management Team (N-DHMT) and local non-governmental organizations working in HIV/AIDS (Hope Humana and Project Concern International). After meeting with LINKAGES, the N-DHMT in turn, identified the Lubuto Health Clinic, its satellite clinics, and surrounding communities as the preferred location for this project because of its client base and active network of neighborhood health committees.

In November 1998, Ntombela and Preble returned to Zambia to develop the demonstration project proposal and to carry out an assessment of the existing health facilities and communities (in collaboration with Sam Kalibala of the HORIZONS Project). The objectives of the proposed demonstration project, as outlined in this proposal, are

- to strengthen maternal and child health (MCH) services (including antenatal, maternity, and postnatal care) at selected clinics in Ndola District and in the corresponding communities
- to improve counseling on maternal nutrition and infant feeding in the clinics and communities
- to introduce VCT in the clinics initially and later in the community, and upgrade knowledge and skills related to all aspects of perinatal transmission
- to strengthen referral links between the clinic and community services
- to document the experience, monitor health outcomes, and analyze the costs, feasibility, acceptability, and impact of these interventions on the quality of MCH and community services and maternal and infant feeding practices

These objectives fit within the Ndola District's broader objectives to enhance their response to the HIV epidemic and to improve maternal and infant nutrition. The collaborating institutions for the demonstration project include the National Food and Nutrition Commission, the Ndola District Health Management Team, the Central Board of Health, Hope Humana, Project Concern International,

LINKAGES, and the HORIZONS Project. The roles of each of these collaborating partners is described in detail in the project proposal contained in Appendix E.

The purpose of the present visit was to plan and conduct formative research on HIV and infant feeding. This research is being carried out to facilitate the development of appropriate and feasible infant feeding recommendations for HIV-positive women and families in the project area and to inform the training, counseling, and other materials developed for the project.

A list of persons contacted during the visit is found in Appendix A.

### Activities and Results

#### Developing the research plan

A draft research plan (Appendix B) was developed and discussed with the National Food and Nutrition Commission, the lead organization for the formative research activities, prior to the visit. This plan includes the use of focus group discussions, key informant interviews, household observations and cooking demonstrations, and market surveys to learn about the knowledge, attitudes, perceptions, and practices of health providers, mothers of children > 2 years of age, fathers, men and women with HIV/AIDS, and other community members concerning

- voluntary counseling and testing,
- mother-to-child transmission of HIV,
- transmission of HIV through breastfeeding,
- current breastfeeding and other feeding practices,
- the preparation and use of non-human milks and porridges,
- household environment and hygiene/sanitation conditions, and
- the availability and cost of various food and milk items and ingredients.

A follow-up step to test the feasibility, acceptability, and potential impact of recommendations to improve infant feeding practices, focusing on specific behaviors for HIV-positive women, through household or group trials, is also part of the plan.

#### Developing and pretesting the research guides and instruments

Focus group discussion guides, semi-structured key informant interview forms, and household interview and observations guides were also drafted in preparation for the visit. These were discussed with the NFNC team during a one-day workshop held at the Padmozi Hotel, Lusaka, modified based on these discussions, and field tested at Chienje Health Clinic in Lusaka. The results from the field test are currently being analyzed and will be part of the research report and recommendations for the project.

<sup>1</sup> Both the Central Board of Health and USAID/Zambia are interested in expanding the project activities beyond Ndola and review of the pretest findings is one way to explore whether the results and recommendations from the Ndola area may be appropriate to Lusaka and other urban areas of the country.

## Orientation and training the field team

A one and a half-day orientation/training was held on December 5–6, 1998, at Lubuto Clinic for the field team involved in the formative research. This team was made up of four MFNC staff experienced in research and infant feeding issues (all of whom were involved in the pretest), three nurses from different Ndola health facilities, and the SARA and LINKAGES advisors. All but three of the team were fluent in Bemba, the most common local language in the project area.

The orientation included an overview and discussion of mother-to-child transmission and infant feeding issues as well as a review of the research objectives, sampling strategy, and instruments. The trainees were given copies of the FAQ sheet and review paper on HIV and infant feeding to become more familiar with the issues being studied. One-half day was spent organizing and recruiting for the focus group discussions and identifying families with children > 2 years of age for the interviews and household observations.

The agenda for the orientation/training is found in Appendix C.

## Field work

The field work for the formative research was carried out on December 7–9, 1998. The sample included nearly 100 participants, as follows:

### Focus group discussions (45 participants)

2 groups with mothers or care givers of children < 2 years  
2 groups with fathers of children < 2 years  
1 group with HIV+ women (organized by Hope Humana)  
1 group with HIV+ men (organized by Hope Humana)

### Key Informant Interviews (35 participants)

14 health providers from Lubuto, Main/New Masala, and Twapia Clinics  
18 mothers of children > 2 years (including 5 pregnant women)  
2 members of the Neighborhood Health Committee (chairman, treasurer)  
1 experienced HIV counselor

### Household Interviews & Observations with Food Preparation

17 household interviews/observations in homes of children < 2 years (including five orphan care givers)

### Market Observations

Local shops, markets, food stalls throughout Lubuto, Masala, Twapia, and Ndola

Throughout the course of the visit several meetings were held to debrief UNICEF, UNAIDS, the Central Board of Health, the new ZIHP partners, and other collaborating institutions on the project's plans and activities. These activities are part of a continuing process to insure that project is well understood, accepted, and integrated into the political and technical landscape of other HIV/AIDS and reproductive health activities in Zambia.

#### Other debriefings/meetings

It was agreed at these meetings that the project will proceed, as planned, and that the team will continue to keep all partners and interested groups informed of activities and findings. The NFNC will insure that the project activities and results part of the agenda and are communicated to the perinatal transmission working group at future meetings. USAID requested LINKAGES attendance at the January planning meeting (also scheduled for the week of the 18<sup>th</sup>) for the new bilateral ZIHP projects to insure that the demonstration project activities are integrated into ZIHP plans and activities.

Ntombela and Pwiz returned to Lusaka to debrief USAID (and project partners) and the perinatal transmission working group on December 10<sup>th</sup> and 11<sup>th</sup>, respectively. The debriefing included an overview of the project objectives, the planned activities, the research plan, and the preliminary results from the formative research. The debriefing generated a great deal of interest, particularly from the perinatal transmission working group, which is currently planning a project to provide AZT and replacement feeding to HIV-positive women in Lusaka.

#### Debriefings at USAID and with the Perinatal Transmission Working Group

An outline for the steps to be followed for analyzing and writing up the information, drafted by SARA/LINKAGES and discussed with the team, is found in Appendix D. The NFNC team agreed to complete their preliminary report and fax or DHL it to LINKAGES by December 22. SARA/LINKAGES will review the report and submit their own analysis by the end of the first week of January. These research findings will be used to plan subsequent research activities (trials), which are scheduled for the week of the January 18.

As noted above, preliminary analysis was undertaken in the field through daily debriefings and review of research findings. Time did not allow an in-depth analysis of the research results during the visit. The responsibility for analyzing the results was divided among the research team, with NFNC taking the lead in transcribing and analyzing the results of the focus group discussions (which were mainly carried out in Bemba) and tabulating the results of the health provider interviews and market surveys. LINKAGES/SARA are responsible for tabulating and analyzing the results of the mother interviews and household observations.

#### Analysis and report writing

Each morning the team met at about 8:00 to travel to the field and confirm the day's logistics and interview schedule. The team met again at 1:30 to debrief on the day's progress, discuss findings and observations, and to plan the next day's work. The evening hours were spent reviewing the interview guides and completing field notes. On December 10<sup>th</sup>, the team met to review and discuss their research findings, complete notes, and begin preparing the research report.



Specifically, during the visit there were

- Working meetings with the NFNC and the Central Board of Health to discuss to the proposed letter by LINKAGES to the Ministry of Health to seek approval of the Ndola Demonstration Project. After much discussion, it was agreed that the letter from LINKAGES was not needed. However, the NFNC must incorporate the activities of the project in its work plan for 1999, and submit the work plan to the Central Board of Health

- Working meetings with NFNC and the Central Board of Health to discuss preparations for the national HIV and Infant Feeding Policy Framework workshop, which was originally scheduled to take place on December 2-3, but has been postponed until February 3-4, 1999. The workshop will be co-sponsored by NFNC and the Central Board of Health (through the National AIDS Control Programme), and it will be funded by LINKAGES. A district-level policy workshop will be organized at a later date in Ndola (in collaboration with Hope Humana and the N-DHMT)

- Ntombela attended an informal meeting of the Perinatal Working Group and UNICEF in order to meet Dr. Eric Mercier, UNICEF HIV/AIDS Advisor and to listen to a briefing by the team that attended the Harare Regional meeting on HIV perinatal transmission. During this meeting, it was learned that UNICEF has pledged US \$ 400,000 (for AZT and infant formula) in Zambia for what is now being called the "Phase I Implementation Project", the perinatal working group will develop an extensive project work plan for this project, which will take place in three sites (to be selected)

- A brief meeting was held with Dr. Mnyunda, Director, Ndola DHMT to discuss proposed plans for the renovation of Lubuto Clinic in order to accommodate counseling and laboratory space for the demonstration project. As a result of this meeting, it was agreed that the Neighbourhood Health Committee will write a proposal to request funding for the renovation. The proposal will be submitted to USAID (JSI, ZIHP) and other possible donors. Subsequent meetings were held with the Neighbourhood Committee to discuss the proposal

- Working meetings were held with the staff of Hope Humana to discuss their role in the project. As a result, Hope Humana will prepare a proposal and submit a proposal to LINKAGES, as soon as possible, to cover their involvement in activities related to training and initiating the voluntary counseling and testing and infant feeding counseling, disseminating the HIV and infant feeding policy guidelines in Ndola, and related activities. The proposal will have to be approved by the USAID mission in Zambia

- Brief meetings were held at UNICEF and UNAIDS to inform the country representatives of the activities planned as part of the demonstration project

### Meetings with the media

Ntombela participated in a one-week meeting that was being held in the Pamodzi Hotel for all media

- 1 The NFNC and LINKAGES/SARA will complete their analysis and draft report (due by January 8<sup>th</sup>)
- 2 NFNC will request technical assistance for the next stage of the research (January 18<sup>th</sup> - 30<sup>th</sup>)
- 3 NFNC and the N-DHMT will incorporate the demonstration project activities into their 1999 work plans

**Next Steps**

In light of these discussions, it is recommended that LINKAGES take the approach of providing information, basic facts, and sensitization on HIV and Infant Feeding, consider working with a designated journalist(s) from Zambia Information Services on this issue, and consider writing an article on HIV and infant feeding for the new ZIHP publication February 1999 issue (suggested by Elizabeth Serlemitsos of ZIHP Communications and Community Partnerships)

During the period the LINKAGES team was in Zambia, no negative or controversial reporting was observed from any of the media houses, which is particularly noteworthy since the visit included the weeks before, during, and after World AIDS Day and there was extensive media coverage of the issue

At the national level there is an Interagency Technical Committee on Population, with members drawn from heads of population-related agencies. This group is chaired by Zambia Information Services. In 1997, the Ministry of Health/Central Board of Health established an IEC working Group

In rural areas possible channels of communications are interpersonal channels such as village meetings, social networks, and religious outreach activities. These mostly use drama that combines IEC with entertainment

The main communications channels in the country are the Zambia National Broadcasting Cooperation, Zambia Information Services, Multimedia Zambia, privately-owned video and film studios, which can produce radio and TV programmes, and print media with daily, weekly, monthly, and bi-monthly publications. However, print media are only accessible to the urban population at a cost of K1000, which is rather expensive. Also available are video channels found in most urban districts. It is worth noting that the majority of journalists employed by Zambia Information Services have been sensitized or trained in population and health issues, including HIV/AIDS

- IEC activities require strengthening and coordination in the country (all activities are carried out as isolated projects),
- there is little or no systematic documentation of evaluation of activities (and little baseline data), and
- there is no adequate institutional base for IEC activities (hindering implementation)

During these meetings, the following concerns/issues were raised

houses in Zambia to discuss the democracy of the media in Zambia in the new millennium. During this meeting, Ntombela met with Mr Jabani, Director of the Zambia Information Services, Ms Dorcas Chileshe, Sub-editor, and Mr Edwin Musaiika, Assistant Political Editor for the Times of Zambia

- 4 Hope Humana will prepare a proposal and submit it to LINKAGES for their activities in support of the demonstration project
- 5 LINKAGES will identify and hire a local coordinator for the project, and proceed with the planned activities
- 6 LINKAGES will prepare an article on HIV and infant feeding for the February issue of the ZIPH publication

**Appendix A - Persons Contacted**

The National Food and Nutrition Commission

Priscilla Likwasi, Acting Executive Director  
Mrs Mwate Chintu, National Breastfeeding Programme Coordinator  
Ruth Siyandi, Nutritionist  
Dilly Mwale, Nutritionist  
Ward Siamsantu, Nutritionist  
Chisela Kalirwile, Nutritionist  
Annoek van den Wynngaart, Nutritionist  
Eustina Mulienga-Besa, Nutritionist  
Raider Mugodi, Nutritionist

La Leche League/Zambia

Tina Nyirenda

Ndola District Health Management Team/Lubuto Clinic area

Dr Ernest Muyunda, Director  
Mrs Ronah Maambo, HIV/AIDS Coordinator  
Ms Josephine Siamanhwa, Nutritionist  
Mrs Lynette Maambo, Nurse, Community Coordinator  
Mrs Esther Longwe, Nurse in Charge, Main Masala Clinic  
Mrs Anna Banda, Nurse in Charge, Lubuto Clinic

Ndola Neighborhood Health Committee

Mr Trasisuis Mutale, Chairman  
Ms Sylvia Libweshya, Secretary  
Mrs Elizabeth S Ndhlovu, Treasurer

Central Board of Health

Dr Ben Chirwa, Director General  
Mr Alfred Maliyane, Executive Secretary, Food and Drug (MOH)  
Dr Mose Sichone, Public Health and Clinical Systems Manager

Perinatal Transmission Working Group/University Teaching Hospital

Prof G J Bhat  
Prof C Chintu

Matron Shamoya, Pediatrics and Child Health  
Dr G M Shankale, Pediatrics and Child Health  
Ms Catherine Kaseba, Obstetrics and Gynecology

Hope Humana

Jane Broen Jensen, Project Manager  
Poso Ngalande, Health Services Leader/Clinical Officer/Counselor

PCI

Mr Andrew Mulewa  
Ms Deborah

USAID

Dr Paul Zeitz, HPN  
Mr Robert Clay, HPN

UNICEF

Mr Peter McDermott, Country Representative  
Dr Eric Mercier, UNICEF HIV/AIDS Advisor (New York)

UNAIDS

Dr Bernadette Olowo-Freers, Country Representative

ZIPH

Mrs Suzanne Thomas, Deputy Chief of Party (Service Delivery)  
Ms Elizabeth Sermitos, Chief of Party (Communications and Community Partnerships)  
Ms Mary Segall, Training Advisor

## Appendix B - Draft Research Plan

Qualitative Research Plan for Ndola District VCT/MCH model program  
(November 23, 1998)

### Research Objective

To develop appropriate and feasible infant feeding recommendations for HIV-positive mothers and families living with HIV in Ndola District, Zambia

### Definition of terms

Appropriate - based on infant age, nutritional requirements, and locally available foods and milk alternatives

Feasible - based on economic, social, and cultural considerations (facilitating factors and constraints), and on environmental considerations (following principles of safe and hygienic food preparation)

### Research Plan

Research will be carried out in 3 phases

The first phase will be a review of existing information and an exploratory study to collect qualitative information on general HIV awareness issues, perceptions of transmission and risk, feeding practices among women with HIV, how feeding decisions are reached (in general), and community responses and resources for supporting women and families with HIV

The second phase will identify locally available replacement (or complementary) feeding alternatives (including costs, seasonal fluctuations) and environmental considerations that could facilitate or pose risks to safe and hygienic preparation of these foods and milks

The third phase will include recipe and/or household trials to test the feasibility and response to specific replacement feeding recommendations and/or practices for making breastfeeding safer for women with HIV. The findings of the trials will also be "checked" (tested) with additional groups (to be determined), but generally including other families, decision-makers, and stakeholders

Each phase will be followed by a short period of analysis to guide the formulation of the objectives and content of the following phase. This is required to insure that the research is locally-relevant and responsive to the social, cultural, and economic needs and concerns of the Ndola women and families who will be served by the program

### Research Methods

Phase one will include focus group discussions with women (general population of women of childbearing age, pregnant women) and men, and key informant interviews with MCH providers and others who are providing services for women and families with HIV. Mothers with HIV should also be

interviewed if a population can be identified (The number of focus groups and the possibility of interviewing other community members at this stage should be discussed)

Phase two will include community/household observations and food/milk availability assessments (e.g., in markets, in households, of water and hygiene considerations, to verify information collected in July), and key informant interviews with MCH providers and mothers about appropriate complementary/replacement foods, preparation practices, and safety and hygiene issues MCH case management practices (for children with diarrheal diseases) will also be explored (Twenty-four hour recall studies may also be required, depending on the availability of existing information on feeding practices/diets of children in Ndola )

Results from phases one and two will be analyzed to develop a list of appropriate and feasible (defined above, including nutritional analysis) recommendations to be tested through either recipe or household trials (e.g., construction a feeding assessment and counseling guide) Appropriate age-groupings for the trials will also be determined It is likely that recommendations will be tested among pregnant women, and among mothers (and other care givers) of children < 4 months, 4-6 months, 6-12, > 12 months of age

Phase three will include recipe trials and/or household trials to explore possible changes in current practices (possible issues include preparing and serving breastmilk alternatives, improving the quality of complementary foods, expressing and heat treating breastmilk, improving other feeding practices such as frequency, snack foods, active feeding, cleaning utensils, etc ) Focus group discussions may also be carried out to obtain feedback on the trial results from other audiences

It is important to note that the exploratory research may indicate that women with HIV will continue to breastfeed (by choice or necessity) If this is the case, the trials will be of improved complementary rather than replacement) feeding practices, with testing of options for making breastfeeding safer (e.g., early cessation of breastfeeding, expressing, storing, heat-treating breastmilk, etc )

**Appendix C - Orientation/Training Agenda**

**HIV and Infant Feeding Formative Research**

**Agenda for December 5, 1998**

09 30	Welcome, introductions
09 45	Overview on HIV and Infant Feeding
10 30	Description of the Ndola demonstration project
11 00	Break
11 15	Overview of the formative research
11 30	Discussion of the research plan for the week
12 00	Review of the Question Guide for the key informant interviews with mothers
13 00	Lunch
14 00	Continue review of the Question Guide
15 30	Review Household Interview and Observation Guide
16 45	Break
17 00	Discussion of Field Procedures and Logistics

**Agenda for Sunday, December 6**

**Morning**

Recruitment of families, focus group participants in the field

14 00	Update on the recruitment
15 00	Other logistics
16 00	Practice doing the interviews



**Appendix D - Procedures for Analyzing and Synthesizing the Research Findings**

**HIV and Infant Feeding Formative Research Protocol  
Guidelines for Transcribing and Synthesizing the Results  
of the Focus Group Discussions**

Immediately After the Discussions

- Review the notes for clarity and gaps
- did what you write down make sense?
- is it accurate?
- did you forget anything?
- Review the tapes to verify missing information and things that require clarification
- Transcribing notes and synthesizing information
- Type (or write very clearly) all notes and proofread for clarity and completeness
- Organize the notes according to topic, sub-topic, and question. If supplies permit, transcribe the findings from each sub-topic and/or theme on a separate piece of paper (to facilitate analysis across groups). Identify group segment and location (Ndola, Chilemba) on each page
- Write a brief summary sheet for the group with the following information
  - The focus group segment and the number of participants
  - Where the meeting was held
  - Date and time of the meeting
  - Name of moderator
  - Name of note-taker
- The topics and sub-themes discussed
- Synthesize the findings from the discussions according to the format below. **For each theme,** include major points being made (content), direct quotations, where appropriate, and whether there is agreement about the information/opinions given or diverse viewpoints. Note the strength of the consensus or disagreement on diverging viewpoints by indicating the number of participants who felt a certain way. If the exact number is not known, then indicate whether all, most (more than half), some (less than half), or few (one-quarter) participants had the viewpoint/opinion being described
- Use this format to synthesize the findings of each focus group findings

Topic 1 HIV and Mother to Child Transmission

Sub-topic 1 General issues related to HIV

Theme	What is known about HIV, who is affected by it, local names for it
Theme	How the disease is spread and how people prevent getting infected
Theme	Sources of information on HIV and what they say
Sub-topic 1 2	General issues related to HIV counseling and testing
Theme	How people know they are infected, familiarity with the HIV test
Theme	Willingness and decision-making about getting tested
Theme	Finding out the results and sharing them
Theme	What people would do if they learned they were infected
Sub-topic 1 3	Mother to Child Transmission
Theme	Knowledge and beliefs about mother-to-child transmission, ways to prevent it
Theme	Knowledge and beliefs about transmission risks (do all or some infected women pass it on)
Theme	Decision-making about infant feeding if HIV positive, reasons for why/why not, include information from questions about if a mother is pregnant and learned she was positive and the general question from topic 2
Topic 2	Infant feeding practices
Sub-topic 2 1	Breastfeeding practices
Theme	Usual breastfeeding and weaning practices
Theme	Women who do not breastfeed
Theme	Care of orphans
Sub-topic 2 2	Other feeding decisions
Theme	Feeding liquids
Theme	Feeding/preparing solid foods
Theme	Feeding style and active feeding
Theme	Having a healthy baby
-	Write a brief statement about your conclusions from this meeting with respect to our research plan, gaps, and the key issues to address in further key informant interviews, observations, and trials
-	If time allows, compare findings across groups to identify similarities and differences between groups We can do this as a group if there is not enough time to do this in early January Because we will compare between groups it is important to follow this format If the format is repetitive, then reference the theme where the information is recorded/synthesized
-	Clip together a group packet that includes the summary sheet, the synthesis, and the typed/written transcripts

**HIV and Infant Feeding Formative Research Protocol  
 Guidelines for Reviewing and Synthesizing the Results of the Key Informant Interviews and  
 Household Observations**

Immediately After the Interview/Observation

- Review each questionnaire to completeness and to make sure all notes are legible
- Fill in any additional information on open ended questions
- Write out any information that was abbreviated during the interview
- Make sure all interviewer questions are answered
- If there is missing information, make arrangements to get the additional information
- Turn in the form (to the person coordinating the form collection) when it is complete

Synthesis After Data Collection

Sort all forms by type of interview and informant

- key informant provider
- key informant mother
- key informant pregnant woman
- key informant other
- household interview with observation
- market survey

Optional enter forms in EpiInfo (electronic files will be provided) and process electronically  
 Summarize the characteristics of the sample on a summary sheet that includes

- the number of forms completed in each category
- the number of interviews/observations for each child-age grouping
- the number of providers interviewed/clinic
- the number of forms completed/day (optional)
- the number of forms completed/interviewer (optional)

Divide up the forms, putting one person in charge of synthesizing one type of form(s) (with equitable work load distribution)

Create summary profiles for each type of interview/form

- For the health provider interview, tabulate and summarize the information for all respondents together

- For the mother key informant interviews and household observations, tabulate and summarize the information question 1 type of informant (> 6 mo, 6-11 mo, 12-23 mo, other)

Clip together an interview form packet that includes the summary sheet, summary profile for the type of informant and the original questionnaires

If time allows, compare findings across types of informants to identify similarities and differences between them. We can do this as a group is there is not enough time to do this in early January

- For the market survey(s), summarize the information on the summary tables provided (one/product to facilitate analysis)
- For all interviews, these profiles should include
  - A summary of the general characteristics of the population. For example, for the provider interviews
    - number of respondents
    - average age (range)
    - # of different providers interviewed (e.g., 4 nurse midwives, 2 doctors, etc)
    - # from each clinic
    - # males, # females etc
  - A summary of the findings for each numbered section on the question guide
  - responses for all closed (fixed category) questions should be tabulated and the proportions reported (e.g., 5/8 yes, 2/8 no, 1/8 don't know)
  - responses for all open-ended follow-up questions should be tabulated, where possible, or described/summarized if tabulation is not possible (e.g., why/why not, what do/no do, tell, not/tell)
  - responses to the open-ended questions should be synthesized and summarized for the group
  - At the end of the section
    - state conclusions drawn
    - information gaps
    - recommendations for the trials

**NDOLA DISTRICT DEMONSTRATION PROJECT TO  
INTEGRATE INFANT FEEDING COUNSELING AND HIV  
VOLUNTARY COUNSELING AND TESTING INTO HEALTH  
CARE AND COMMUNITY SERVICES**

**A PROPOSAL**

Collaborating Institutions

National Food and Nutrition Commission  
Ndola District Health Management Team  
Central Board of Health

and

LINKAGES Project  
Hope Humana  
HORIZONS Project  
Project Concern International

Draft

December 11, 1998

**List of Acronyms**

acquired immunodeficiency syndrome	AIDS
Baby-Friendly Hospital Initiative	BFHI
community-based organization	CBO
District Health Management Team	DHMT
Demographic and Health Surveys	DHS
human immunodeficiency virus	HIV
maternal and child health	MCH
National Food and Nutrition Commission	NFNC
non-governmental organization	NGO
Project Concern International	PCI
Tropical Disease Research Center	TDRRC
United States Agency for International Development	USAID
voluntary counseling and testing	VCT
Zambia Integrated Health Package	ZIPH
ZIPH Communications and Community Partnerships	ZIPH-COMM
ZIPH Service Delivery, Community Partnerships and NGO Strengthening	ZIPH-SERVE

## 1 0 SUMMARY BACKGROUND

### 1 1 Introduction

It is well accepted among child health experts that appropriate infant feeding, in most cases exclusive breastfeeding for the first six months, can reduce the incidence of infectious diseases in infants, and contribute significantly to their health and well being. In Zambia, as in other African countries, the relationship between HIV transmission and breastfeeding has posed complications for infant feeding policies, programs, and guidelines.

The rapid spread of HIV and AIDS in Zambia has caused dramatic increases in morbidity and mortality in adults and children, and has compromised socioeconomic growth. The AIDS epidemic has hit women and children particularly hard – women, who are disproportionately vulnerable to HIV in younger age groups, and children, through perinatal transmission of HIV before, during, and after birth through breastfeeding.

The finding, in the mid-1980s, that HIV was found in breastmilk and could be transmitted to infants through breastfeeding presented a disturbing link between two important health challenges – ensuring optimal infant feeding practices, and preventing transmission of HIV. In practical terms, this has affected Zambia in multiple ways. Firstly, the development of Zambia's infant feeding policy was interrupted while policy-makers dealt with this new problem. Secondly, health workers are unprepared to deal with the broad range of HIV/AIDS-related needs of women of reproductive age, including counseling on infant feeding in the face of HIV/AIDS. Thirdly, antenatal clinics lack one of the most important tools in the fight against HIV/AIDS – voluntary counseling and testing (VCT).

### 1 2 Problems of HIV/AIDS in women in Zambia

According to Ministry of Health estimates<sup>2</sup>, nearly one out of every five adults in Zambia is currently infected with HIV, or, an estimated 950,000 Zambian adults and 70,000 Zambian children. By the end of 1996, it was estimated that there had been more than 400,000 cases of AIDS in Zambia since the beginning of the epidemic.

Data from the national sentinel surveillance program reveal a national adult seroprevalence level of 19.9 percent, with urban and rural rates of 27.9 percent and 14.8 percent respectively. Wide regional variations in seroprevalence are present, ranging from a low of under one percent in rural areas on North-Western Province to a high of over 30 percent in urban areas of Eastern and Southern provinces. The Copperbelt Province is one of the worst affected provinces in Zambia, with an average adult prevalence rate of 23.4 percent. Within this province, in Ndola Urban District, where this project will be located, an estimated 51,740 adults were already estimated to be HIV-infected by the end of 1997, and the urban seroprevalence rate is over 25 percent.

Two major modes of HIV transmission are predominant in Zambia – heterosexual transmission

<sup>2</sup> Central Board of Health, Ministry of Health, HIV/AIDS in Zambia, December, 1997

Antenatal services in Zambia are of relatively high quality, and are well attended. For example, 1996 DHS data indicate that 96 percent of Zambian mothers received antenatal care from a doctor, trained nurse or midwife, and the median number of antenatal care visits was 5.2. Antenatal services have the potential to play an important role in improving maternal and infant nutrition, reducing HIV infection in

#### 1.4 The need to strengthen antenatal services in Zambia

There is considerable concern in Zambia (as there is across Africa) that worries about HIV transmission through breastfeeding will cause many women who should continue to breastfeed, to cease breastfeeding, putting their infants in danger of increased morbidity and mortality. Women who do not know their HIV status, and women who know they are HIV-infected, but who are not able, for a variety of reasons, to safely feed their infants with artificial foods

Demographic and Health Survey (DHS) data from 1996 indicate that 98 percent of Zambian mothers initiate breastfeeding with a median duration of breastfeeding of 20 months. Almost all children are breastfed for at least one year, and only four percent of children aged 12-13 months are not breastfed. While these high rates of breastfeeding appear encouraging, in reality, very few mothers feed their infants optimally. For example, in 1996, only 20 percent of children under two months of age and only five percent of infants 4-5 months of age, were exclusively breastfed. Hence, by six months of age, most infants in Zambia are at risk of contamination by low quality foods that are not hygienically prepared and/or are contaminated with pathogens. There is still much work to be done to engender optimal feeding practices in women who are not HIV-infected, or who do know their HIV status

#### 1.3 Problems related to infant feeding in Zambia

- Based on current HIV trends in Zambia, of the 400,000 estimated deliveries per year, over 80,000 will be by women who are HIV-infected. Over 20,000 of the babies born each year will acquire HIV infection from their mothers, with approximately one-third of these becoming infected in utero, one-third during delivery, and one-third after delivery, through breastfeeding.
- The median age for first sexual intercourse is 16 years for females, and by age 19, many HIV-infected young women will already have delivered a baby. The average woman in Zambia will have 6-7 children during her lifetime. If she is infected with HIV during the peak years for women (15-19) and if she is not aware of her HIV status, many of these 6-7 children will be at risk of HIV infection.
- The peak age group for AIDS cases in women is 20-29, younger than that for men. Young women aged 15-19 are five times as likely to be infected with HIV as young men in that age group.

(which is responsible for most HIV transmission to women) and perinatal (mother-to-child) transmission, which leads to an estimated 25,000 infants becoming infected with HIV each year in Zambia. The implications of the AIDS epidemic in Zambia for women of reproductive age and their infants are severe.



women, and in preventing mother-to-child transmission of HIV. However, these services are not currently prepared to undertake this role

Antenatal clinic staff in Zambia are not currently able to respond to the broad range of nutrition and reproductive health-related HIV problems of their women clients. For example, health workers have not been trained in issues related to maternal and infant feeding, HIV in pregnancy, labor, and delivery, HIV and family planning, and the fundamentals of perinatal transmission of HIV

Whereas antenatal services are ideal places to offer women voluntary counseling and testing (VCT) for HIV, these services are not presently available at antenatal clinics, and they are only offered at a few community-based sites in the country. When available, the services are often unaffordable to the general public

Antenatal clinics could significantly reduce the numbers of infants infected by HIV through perinatal transmission with relatively modest increases in staff training and improved services. For example, if clinics provided counseling during pregnancy about HIV prevention and its importance for a healthy mother and baby, this could prevent or reduce in-utero transmission. Likewise, services to treat maternal infections and improved obstetrical practices would help to reduce HIV transmission that occurs during labor and delivery

To avoid post-natal transmission (through breastfeeding), antenatal services are the natural place to offer counseling on maternal and infant feeding. Many health staff (including those working at antenatal clinics and at Baby Friendly Hospital Initiative [BFHI] sites) have not been adequately trained in lactation management. Where such training does exist, it does not yet include specific issues related to HIV and infant feeding, such as a) protection and support for breastfeeding and appropriate complementary feeding among HIV-negative women, b) helping HIV-infected women weigh the risks of HIV transmission through breastfeeding with the risks of artificial feeding, c) helping HIV-infected women who choose not to breastfeed identify safe, affordable, and acceptable alternatives to breastmilk, and d) helping HIV-infected women who choose to breastfeed to do it as safely as possible

Finally, two-way linkages between MCH services (including postnatal care) and community-based HIV/AIDS services need to be strengthened. This is to ensure that community services provide appropriate counseling in infant feeding and encourage women and men to go for VCT. Community services are also needed to provide VCT and care and support after testing

## 2 0 PROJECT OBJECTIVES

The objectives of this demonstration project are

- to strengthen maternal and child health (MCH) services (including antenatal, maternity, and postnatal care) at selected clinics in Ndola District and in the corresponding communities
- to improve counseling on maternal nutrition and infant feeding in the clinics and communities

- attitudes of the community regarding these services,
  - a mapping of the existing community groups and organizations (including neighborhood committees) involved in both infant feeding and HIV/AIDS support services,
- A community assessment will be undertaken, with support from HORIZONS and PCI, to identify potential mechanisms for establishing a two-way referral system between health services and community resources. This assessment will include

### 3 2 Community Assessment

The research will be carried out in three phases. The first phase will review existing information and conduct exploratory research on both HIV and infant feeding issues. The second phase will identify locally available replacement (and/or complementary) feeding alternatives and environmental considerations that could facilitate or pose risks to the safe and hygienic preparation of these foods and milks. The third phase will include recipe and/or household trials to test the feasibility and response to specific replacement feeding recommendations and practices for making infant feeding safer for women with HIV. In addition to providing feeding recommendations for HIV+ positive mothers, this information will be used in the design of the training, counseling, and community-based components of the project.

To date, progress in preparing health workers to counsel HIV-infected women on infant feeding has been hampered by lack of knowledge about what safe, affordable and acceptable alternative foods are available in Zambia. Formative research, supported with technical assistance from LINKAGES, will try to answer this question. The results of this research will be used to develop appropriate and feasible infant feeding recommendations for HIV-positive mothers and families living with HIV in Ndola District.

### 3 1 Formative research on HIV and infant feeding

## 3 0 MAJOR PROJECT ACTIVITIES

- The objectives of this project fit within the broader district-level objectives to enhance Ndola District's response to the HIV epidemic and to improve maternal and infant nutrition
- to introduce VCT in the clinics initially, and later, in the community, and upgrade knowledge and skills related to all aspects of perinatal transmission
  - to strengthen referral links between the clinic and community services
  - to document the experience, monitor health outcomes, and analyze the costs, feasibility, acceptability, and impact of these interventions on the quality of MCH and community services and maternal and infant feeding practices

An assessment of the services provided and procedures followed for pregnant women attending the antenatal, delivery, and post-natal clinics in Lubuto and the satellite facilities will be undertaken. The layout of the Lubuto clinic will also be studied in order to ensure that counseling and testing rooms can be dedicated to project activities and laboratory space can be created. If clinic renovations are required, a request for support from the Zambia Family Planning Services Project (or its successor) will be made.

### 3 5 Strengthening Maternity Services

Pregnant women coming in for their antenatal visits will receive information on how to prevent HIV, VCT, and maternal nutrition and infant feeding. These women will be able to get VCT at any subsequent visit. Women will be encouraged to involve their male partners in the VCT process and to return for their test results. Women who test negative will be counseled about breastfeeding and how to prevent HIV infection. HIV-positive women will be given detailed information about feeding options and will be encouraged and supported in their feeding decisions.

Two counselors will be made available by Hope Humana to the Lubuto antenatal clinic to assist with VCT services. Hope Humana will do the on-site testing and analysis and will train clinic staff in these methods. Hope Humana will supervise the testing in collaboration with the Tropical Disease Research Center (TDRCC) for quality control purposes.

### 3 4 Introduction of VCT and infant feeding counseling

All training will be followed by supervised, practical experience in the clinic. Short refresher courses will be offered periodically.

A one-week sensitization course will be held at the beginning of the project and periodically thereafter for all clinic staff and community groups involved in the project. This course will cover maternal and infant nutrition, appropriate infant feeding practices, fundamentals of HIV/AIDS, and issues related to HIV and reproductive health (such as HIV in pregnancy, obstetrical practices, family planning). A second, week-long course specifically on counseling about HIV and infant feeding will also be offered to all persons (from community, NGO, and DHMT services/organizations) who provide counseling related to HIV, infant feeding, and mother-to-child transmission.

A specialized training course will be developed for this project, with support from NFNC, Hope Humana, and LINKAGES, based on elements from existing HIV/AIDS, reproductive health, infant feeding, and lactation management curricula that are used in Zambia, as well as from the results of the formative research and community assessment.

### 3 3 Training for health workers and community

Assessment findings will be used to design the community-based component of the demonstration project, particularly the strategies for linking the health services with community organizations.

- potential linkages between community and health system services
- knowledge and attitudes in the community about HIV and perinatal transmission issues,

In consultation with other organizations working in perinatal transmission, an essential package of antenatal and delivery-related services will be determined. These services will be provided according to the agreed on protocols, and incorporated into the training package

### 3 6 Operations Research

All project activities will be carefully documented to ensure that others can learn from this experience. In addition, with support from HORIZONS and LINKAGES, the project will carry out operations research on the costs, feasibility, acceptability, and impact of these interventions on the quality of MCH and community services. The project will monitor HIV-seroprevalence rates, infant feeding practices, and health outcomes of children who have been reached by the project.

### 3 7 Advocacy and Communications

A series of sensitization and advocacy seminars will be organized for stakeholders and decision-makers on the issues being addressed by the demonstration project. Prior to implementation, a workshop to disseminate, discuss, and reach consensus on the policy framework on HIV and infant feeding will be organized in Ndola. A media strategy on the issue of HIV and infant feeding will also be developed. Existing IEC materials will be collected and reviewed, and appropriate materials will be obtained, introduced, and used by the health clinics and community groups. For example, the counseling cards on child feeding developed by BASICS and NFNC may be used for counseling HIV-negative women and women of unknown HIV status. Other materials on reproductive health, HIV/AIDS, and related topics produced by other agencies will also be utilized, as appropriate. The project will collaborate and coordinate with ZIPH-Comm, wherever possible, on the dissemination and use of IEC materials.

### 3 8 Networking and coordination with the Perinatal Transmission Working Group

The project will stay in close communication with the perinatal transmission working group in order to share information and discussion technical issues. NFNC Breastfeeding Coordinator, Mrs Mwate Chintu, is member of the working group and will take the lead in requesting that the demonstration project is regularly included on their meeting agendas and in insuring that the project activities and progress are communicated to the group members.

### 3 9 Monitoring and Evaluation

In addition to the operations research component, project performance relative to set goals and targets, and integration and coordination with other USAID/Zambia activities, will be monitored continuously. Process evaluation and operations research findings will be used to document the impact of the project in terms of increased quality of MCH and community services, health worker performance, community involvement and collaboration with the health system, and demand for and use of project services. Other outcomes that will be followed are described in section 3 6 (operations research).

### 3 10 Project Management and Administration

The project is a joint effort between the Ndola District Health Management Team, the National Food and

LINKAGES is a worldwide program that promotes improved breastfeeding, complementary feeding, maternal dietary practices, and lactational amenorrhea method. LINKAGES has been working closely since 1997 with the Ministry of Health, Central Board of Health, and National Food and Nutrition Commission to develop the national infant feeding policy and operational guidelines for HIV and infant feeding. LINKAGES has been coordinating the development of the demonstration project proposal and discussions among the project partners. LINKAGES will continue to provide technical oversight and

### 4 3 LINKAGES

The NFNC is a statutory body that was established by the GRZ under the Ministry of Health in 1967 and is responsible for coordinating all breastfeeding-related activities in the country. NFNC, in collaboration with the Central Board of Health, has been developing the operational guidelines on HIV and infant feeding for the national infant feeding policy. The need for this demonstration project emanated from the process of developing the national policy framework and operational guidelines on HIV and infant feeding. NFNC will take a lead role in the nutrition and infant feeding aspects of the project and will coordinate the development of the training courses, calling on the expertise of other organizations and partners, as needed.

### 4 2 National Food and Nutrition Commission of Zambia (NFNC)

The Ndola DHMT has been involved in the planning of this project since the initial HIV and infant feeding assessment conducted by LINKAGES and NFNC in July-August, 1998. The Ndola DHMT director and staff were also involved in developing the criteria for selecting the clinic site for the demonstration project, and selecting Lubuto Clinic (and its satellite clinics at Main and New Masala, Twapa, and Kabushi), for the project site. DHMT staff will be key in all stages of the project, particularly the implementation of the clinic-level interventions.

### 4 1 Ndola District Health Management Team

### 4 0 COLLABORATING INSTITUTIONS

LINKAGES will hire a Lusaka-based coordinator to oversee and coordinate the activities of all the partners on the project. This person will be responsible for liaising with USAID and GRZ, coordinating and facilitating the work of the project partners, ensuring the smooth implementation of all project activities, communicating project activities and results to relevant stakeholders, and communicating with LINKAGES headquarters.

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LINKAGES has been involved in the planning of these activities into the Ndola DHMT 1999 work plan project work plan, and incorporation of these activities into the Ndola DHMT 1999 work plan. DHMT, pending the finalization of the proposal. The next stage is the development and approval of a the basis for developing this proposal, and the content has been agreed to in principle by the Ndola person responsible for coordinating and implementing the activities. The concept paper has been used as drafted a joint concept paper that outlined activities and lead agencies. Each partner identified a focal responsibilities, and expectations of each are well-defined. The project partners met in September and drafted a joint concept paper that outlined activities and lead agencies. Each partner identified a focal person responsible for coordinating and implementing the activities. The concept paper has been used as the basis for developing this proposal, and the content has been agreed to in principle by the Ndola DHMT, pending the finalization of the proposal. The next stage is the development and approval of a project work plan, and incorporation of these activities into the Ndola DHMT 1999 work plan.

Discussions have already been held about potential areas of collaboration, and these will continue through the next several months as the ZIHP work plans are developed

- ZIPH-SERV (Service Delivery, Community Partnerships and NGO Strengthening) which is being implemented by John Snow Research and Training Institute, Inc , and its partners
  - ZIPH-COMM (Communications and Community Partnerships) which is being implemented by Johns Hopkins University's Center for Communication Programs and its partners
- As USAID's new implementation mechanisms and contracting agencies get settled on the ground, the demonstration project will foster collaboration and coordination wherever and whenever possible. The two major components that are most closely related to the project are

#### 4 7 Zambia Integrated Health Package (ZIHP)

Project Concern International (PCI) has been involved in strengthening the Ndola District Taskforce on HIV/AIDS and conducting mobilization for VCT at the community level. PCI will provide technical assistance and support for the community component of the project, including the community assessment and other activities to strengthen the linkages between the community and the health clinics

#### 3 6 Project Concern International (PCI)

The HORIZONS Project, operating through The Population Council, has the mandate of assisting with operations research components of USAID-funded HIV/AIDS-related projects. HORIZONS will provide technical assistance and support for the operations research component of the project, working in close collaboration with NFNC, DHMT, LINKAGES and the other collaborating institutions

#### 4 5 The HORIZONS Project

Hope Humana, an NGO operating in Ndola, has offered VCT, support, and outreach services for persons with HIV/AIDS since 1997. Hope Humana is presently the Secretariat for the Ndola HIV/AIDS Task Force of the DHMT and was selected by the Ndola DHMT to be a collaborating partner on the project. Hope Humana will provide HIV testing, counseling, and laboratory support at Lubuto Clinic, and will be responsible for supervising these aspects of the project. In addition, they will help to train DHMT clinic staff in VCT and laboratory procedures. Consistent with their current practices, TDRRC will continue to provide quality assurance for all testing and laboratory procedures

#### 4 4 Hope Humana

coordination, as well as technical assistance

**Proposed Schedule of Activities (11/98-4/99)**

Activity	November	December	January	February	March	April
Assessment of VCT activities	XX					
Assessment of Lubuto and satellite clinics' structure	XX					
- proposal by neighborhood committee		XXX	XXXX	XXXX	XXXX	XXXX
- clinic remodeling						
Formative research		XX	XX			
Community assessment				XXXX		
Communication with perinatal transmission working group	XX	XX	XX	XX	XX	XX (ongoing)
Decide on essential services			XXXX	XXXX	XXXX	
Determine course content			XXXX	XXXX	XXXX	
Identify IEC materials			XXXX	XXXX	XXXX	
Training health workers						XXXX
Introduce VCT/infant feeding						XX (ongoing)
Disseminate HIV and infant feeding policy framework (Ndola)					XX	
Design operations research			XXXX	XXXX	XXXX	XXXX (ongoing)
Recruit/place coordinator		XXXX	XXXX	XXXX	XXXX	XXXX (ongoing)