

**Cost and Effectiveness Analysis
of the Expansion Phase
of the LINKAGES
Infant and Young Child Feeding Program in Zambia**

**Prepared by Marina Nersesyan
For the LINKAGES Project**

September 2006



This report on the *Cost and Effectiveness Analysis of the Expansion Phase of the LINKAGES Infant and Young Child Feeding and PMTCT Program in Zambia* was prepared for LINKAGES: Breastfeeding, LAM, Related Complementary Feeding, and Maternal Nutrition Program, and was made possible through support provided to the Academy for Educational Development (AED) by the Bureau for Global Health of the United States Agency for International Development (USAID), under the terms of Cooperative Agreement No. HRN-A-00-97-00007-00. The opinions expressed herein are those of the author and do not necessarily reflect the views of USAID or AED.

Contents

Executive Summary	vii
1. Background to the Study	1
2. Objectives of the Study	3
3. Program Description	5
3.1. LINKAGES Activities in the study districts during the study period	6
3.2. Partner Activities	9
3.2.1. Ministry of Health (Central Board of Health, National Food and Nutrition Commission and District Health Management Teams).....	9
3.2.2. Community-level partners	10
4. Methodology	11
4.1. Types of Costs Included in the Analysis	11
4.2. Allocation of Costs to Activities	13
4.3. Allocation of Activity Costs to District Level Behavior Change	14
4.4. Use of Household Surveys to Measure Outcomes	15
4.5. Indicators of Cost Effectiveness	16
4.6. Study districts	16
4.7. Limitations of this Study	16
5. Data Collection	18
5.1. LINKAGES' Costs	18
5.2. Data Limitations	18
6. Findings	19
6.1. How Do Costs and Outcomes Compare Across the Study Districts?.....	19
6.1.1. Package of LINKAGES Interventions Compared with Outcomes.....	19
6.2. What are Determinants of Costs and Cost Effectiveness?.....	20
6.2.1. Key Cost Drivers	20
6.2.2. Cost Effectiveness and Partner Participation and Input.....	22
6.2.3. Cost Effectiveness and Target Population.....	22
6.2.4. Cost Effectiveness and Behavior Change Rates	24
6.3. What Would It Cost to Replicate These Activities in Zambia and Would It Be Cost Effective?	25
6.3.1. Cost to Replicate Package of LINKAGES and Partner Activities	25
6.3.2. Cost Effectiveness of Replication.....	27
6.4. How Can LINKAGES Improve its Cost Effectiveness?	29
6.5. How does the cost effectiveness of the interventions in the expansion sites compare with the NDP interventions?	30
6.5.1. Costs and Effectiveness Across NDP and Expansion Phase in the Ndola District 31	
6.5.2. Costs and Effectiveness Across NDP, Kabwe and Livingstone Districts	33

7. Review of Key Research Questions	35
--	-----------

Annex A: List of LINKAGES' Activities	38
--	-----------

Annex B: Detailed Cost Data.....	40
---	-----------

List of Tables

Table ES1: Relationship between Costs and Outcomes (LINKAGES Costs Only).....	xi
Table ES2: Cost per Acceptor by Indicator (LINKAGES Costs Only)	xiii
Table ES3: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)	xiii
Table ES4: Costs of Replicating Total Package of LINKAGES' Activities (LINKAGES Implementation Costs Only).....	xiii
Table ES5: Cost Effectiveness of Promoting TIBF, EBF, ANC, VCT, and HIV/AIDS Knowledge for Replication (LINKAGES Implementation Costs).....	xiii
Table ES6: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only).....	xv
Table ES7: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)	xv
Table ES8: Cost Effectiveness of the NDP and Ndola Expansion Phase (LINKAGES Implementation Costs Only).....	xv
Table ES9: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only).....	xvi
Table ES10: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)	xvi
Table ES11: Cost Effectiveness of the NDP and Kabwe and Livingstone Districts Expansion Phase (LINKAGES Implementation Costs Only)	xvii
Table 1: Number of people trained from the study districts during the study period.....	8
Table 2: Types of Costs Included and Excluded in the Analysis	12
Table 3: Key Indicators – Baseline and Endline Data.....	15
Table 4: Relationship between Costs and Outcomes (LINKAGES Costs Only)	19
Table 5: Cost By Activity (LINKAGES Costs Only)	21
Table 6: Cost By Training/Capacity Building Activity (LINKAGES Costs Only)	22
Table 7: Comparison of Target Population and Cost Effectiveness (LINKAGES Costs)	23
Table 8: Comparison of Baseline and Outcomes Behavior Rates and Cost Effectiveness (LINKAGES Costs).....	24
Table 9: Comparison of Behavior Change Rates and Cost Effectiveness (LINKAGES Costs)	24
Table 10: Classification of LINKAGES Activities June 2002 – August 2004	26
Table 11: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)	27
Table 12: Costs of Replicating Total Package of LINKAGES' Activities (LINKAGES Implementation Costs Only).....	27
Table 13: Cost Effectiveness of Promoting TIBF, EBF, ANC, VCT, and HIV/AIDS Knowledge for Replication (LINKAGES Implementation Costs).....	28
Table 14: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only).....	31
Table 15: Costs of TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only).....	31

Table 17: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only).....	33
Table 18: Costs of TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only).....	33
Costs Included in this Study	38

List of Figures

Figure 1: Target Population and Cost per New Acceptor	23
Figure 2: Change in Target Behavior and Cost per New Acceptor	25

Executive Summary

LINKAGES has been working in Zambia since 1997 to “enable women to make and act effectively on informed choice to feed their infants optimally in the context of high HIV prevalence” (LINKAGES 2004). From 1997 to mid-1998, LINKAGES worked closely with the Central Board of Health (CBoH) through the National Food and Nutrition Commission (NFNC) to develop guidelines and implementation strategies for the National Policy on Breastfeeding Practices and HIV/AIDS Transmission from Mother to Child. This effort resulted in the 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 into maternal and child health (MCH) and community services. The NDP was implemented in six clinics (Kabushi, Kaloko, Lubuto, Mushi, New Masala, and Twapia) and their seven catchment communities in the Ndola District.

Several Zambia districts expressed interest in adapting and replicating the Ndola approach, and in 2001 the Government of Zambia requested expansion of the model. In 2002 the LINKAGES Integrated PMTCT approach began implementation in northern Ndola District, in Mtendere Clinic in Lusaka District, and in Kabwe and Livingstone Districts. In Ndola, eleven more clinics were added to the NDP sites bringing the total of LINKAGES-supported sites in the district to 17. In 2004 activities expanded to new sites in established PMTCT districts and sites in 3 new districts: Choma, Kapiri-Mposhi, and Kitwe. By the end of September 2004, AED-LINKAGES was supporting the implementation of PMTCT activities in 55 sites in 6 districts: Choma, Kabwe, Kapiri-Mposhi, Kitwe, Livingstone and Ndola. Facility assessments were also conducted in three additional districts of Kazungula, Mkushi, and Mufuilira.

The integrated PMTCT model includes training of health and community service providers, advocacy for national infant feeding policy, formative research in the local context for infant feeding decisions, BCC to develop appropriate messages and materials to help mothers make informed infant feeding and reproductive health decisions, and monitoring and evaluation of interventions to improve program planning. The objective of LINKAGES’ Integrated PMTCT Program is to integrate improved counseling on infant feeding, maternal nutrition, voluntary counseling and testing (VCT) for HIV, and antiretroviral (ARV) prophylaxis into health and community services. It should be noted that ARV drugs were not part of NDP services and were added to the service package in June 2002 upon agreement of the government of Zambia to the introduction of ARVs.

LINKAGES does not directly implement interventions in the community, but rather provides training, materials, and technical assistance to enable MOH, NGO, DHMT, and community-level partners to promote and support informed infant feeding and PMTCT practices. LINKAGES has been working closely with the Ministry of Health, including the Central Board of Health (CBOH), the National Food and Nutrition Commission (NFNC), and District Health Management Teams (DHMTs), which accessed community members through their health center staff. These partners have established presence and networks within the communities, and have conducted health promotion activities as part of their ongoing activities as health workers or community leaders and volunteers.

Study Background

In an effort to better understand program effectiveness, LINKAGES has initiated a series of studies to estimate costs and cost-effectiveness of program activities in multiple field offices. While LINKAGES has been successful in increasing target behaviors in several countries, USAID and other stakeholders are increasingly interested in the cost of its interventions relative to results. To date, a costing methodology applicable across countries and programs has been developed, and studies of breastfeeding promotion interventions in Ghana and Madagascar and LAM promotion interventions in Jordan have been completed.

To provide comprehensive estimates of the costs of integrating infant feeding and HIV counseling and testing into maternal and child health and community services, LINKAGES initiated a cost and effectiveness analysis of the Ndola Demonstration Project (NDP) in Zambia from April 2000 to April 2001, as well as an analysis of expanding PMTCT activities to other districts in country from June 2002 to August 2004. The first period represents the timing for the main implementation period of the first demonstration sites and the study was completed by Abt Associates Inc. in September, 2005.

This study represents the second of a two-study series on the cost effectiveness analysis of infant feeding and PMTCT interventions in Zambia. It focuses on the expansion/replication period of the project. The expansion districts examined in the study are Kabwe, Livingstone and Ndola. The study period is June 2002 to August 2004, coinciding with the dates of household surveys conducted in the three study districts.

Selection of Ndola, Kabwe, and Livingstone districts for this study allowed for relatively clear-cut analysis of expansion period of the project and replication costs associated with integrated infant feeding and PMTCT program. As mentioned above, the NDP was carried out in parts of the Ndola district, but the program was then expanded to cover all the clinics and communities in the district. Ndola was included for continuity of analysis and Livingstone and Kabwe as representative of expansion into new districts. It is anticipated that comparison of cost effectiveness over these two periods will provide insights regarding the impact of different packages of activities. In the future, the data can be used for an analysis of the full PMTCT package.

The specific objectives of the study are:

- to analyze cost-effectiveness of LINKAGES' infant feeding and PMTCT promotion activities in three expansion districts of Zambia from June 2002 – August 2004; and
- to determine cost implications of replicating these activities in other districts of Zambia and in the other countries of the region.

The specific questions addressed in this study are:

- How do costs and outcomes compare across the three study districts?
- What are determinants of costs and cost effectiveness?
- What would it cost to replicate these activities in other districts of Zambia and would it be cost effective?
- How can LINKAGES improve the cost effectiveness of its infant feeding activities in the context of an integrated PMTCT approach?
- How do the cost and cost effectiveness of the interventions in the expansion sites compare with those of the NDP interventions?

Methodology

The methodology used in this study has been developed for the LINKAGES Project by Abt Associates Inc.¹.

The study focuses on five key indicators to measure the effectiveness of LINKAGES' interventions:

1. Exclusive breastfeeding rate of infants 0<6 months of age (EBF)
2. Timely initiation of breastfeeding rate (TIBF)
3. Rate of assisted deliveries at a health center (ANC)
4. Percentage of mothers with children aged 0<6 months who have had an HIV test (VCT Rate)
5. Percentage of mothers with children aged 0-6 months who know that HIV can be transmitted during breastfeeding (HIV knowledge)

The measure of effectiveness used in this study is based on the findings of the random sample household surveys conducted in the target populations of Ndola, and Livingstone clinics in June 2002 and August 2004, and in the target populations of Kabwe in June 2002 and June 2004². Data from these surveys were used as baseline and endline indicator data for the study. The baseline survey was conducted prior to implementation of PMTCT activities in the expansion sites and allowed for establishment of baseline measures on key behavior change indicators. The follow-up, endline, survey was then carried out to measure the change in behavior change indicators during the period and to evaluate the program's impact at end of the period.

Three measures of cost and effectiveness are used in this study: 1) cost per beneficiary, or cost per capita; 2) cost per targeted child; and, 3) cost per new acceptor. While the first two indicators look at unit costs, the third indicator compares costs with outcomes. The key indicator used throughout this study to measure cost effectiveness is the cost per new acceptor for each of the targeted behaviors (EBF, TIBF, AND, HIV test, HIV knowledge). The number of new acceptors is calculated by multiplying the change in the rate of the targeted behavior (e.g., the EBF rate) by the total number of children targeted over the period. For example, the cost per new EBF acceptor, the indicator of the cost effectiveness of promoting EBF in each district, is expressed in the following formula:

$$\frac{\text{[cost of activities to promote EBF]}}{\text{[target population]} * (\text{[EBF rate-endline 2004]} - \text{[EBF rate-baseline 2002]})}$$

It is important to note that higher or lower total cost or cost per beneficiary/targeted child does not necessarily imply lower or higher cost effectiveness (defined as cost per new acceptor). It is the cost per new acceptor for targeted behaviors that provides a measure of cost effectiveness.

Partner Cost Data

¹ The methodology is described in detail in the "Methodology for Analyzing Cost and Effectiveness of LINKAGES' Interventions" prepared by Abt Associates Inc. The document is available upon request at LINKAGES/HQ and LINKAGES/Zambia offices.

² In Kabwe District, the community survey was part of media baseline survey. Baseline media survey data provides endline data for the expansion phase in the Kabwe District.

One of the key features of the LINKAGES' CEA methodology is that it considers both LINKAGES and partner costs. An important limitation of the subject study, however, is that partner costs have not been included, because partner cost data were not available in time for inclusion in the analysis. The cost and effectiveness analysis is based solely on LINKAGES cost data. The results are, therefore, representative of LINKAGES' interventions only and do not reflect outcomes of the package of LINKAGES and partner interventions.

Overview of Costing Methodology and Data Collection

The methodology analyzes all incurred costs and attributes all costs to specific activities, which are then associated with outcomes in particular districts, and specific behaviors.

The full cost of LINKAGES/Zambia activities that support the promotion of targeted behaviors, including allocation of all overhead/fixed costs associated with the Zambia central (Lusaka) and district-level (Ndola) offices, is included in the analysis. Direct costs of the LINKAGES/DC office associated with infant child feeding and PMTCT promotion activities in Zambia are also included. Indirect costs of the LINKAGES/DC office (including DC office rent, accounting, financial management, contracts management, etc.) are excluded. Household and volunteer costs are not included in this study. As mentioned above, even though the developed methodology anticipates inclusion of the direct costs of partners, in this study those costs were not available.

Once all the costs are compiled, costs are allocated to the full set of LINKAGES/Zambia activities during the study period. Afterwards, each activity that took place during the study period was reviewed with consideration of its objectives and content. A subset of activities for Kabwe, Ndola, and Livingstone districts was identified as one supporting optimal infant feeding and PMTCT practices at the health centers and communities in Kabwe, Ndola, and Livingstone districts and directly contributing to the appropriate behavior change among the target population. This subset of activities was included in the study. Costs for the subset of activities are then allocated to each of the study districts. Lastly, costs for each of the activities in the study districts are allocated to the behaviors targeted.

Detailed program information needed to identify activities conducted in support of optimal infant feeding and PMTCT practices during the study period was collected through review of program reports and written communication with LINKAGES staff. Data on total LINKAGES' costs related to Zambia activities were collected through accounting records kept in the LINKAGES/DC and Lusaka offices.

Findings by Specific Study Question

1. How do costs and outcomes compare across study districts?

There is a positive relationship between the costs incurred per beneficiary and the behavior change outcomes. Generally higher costs were incurred where the rate of behavior change was higher. Increases in the targeted behaviors were higher in Livingstone district (cost per beneficiary \$5.48) than in Kabwe (cost per beneficiary \$4.14) and Ndola (cost per beneficiary \$1.40) districts.

Total costs were \$361,681 in Ndola, \$258,151 in Kabwe, and \$479,809 in Livingstone. On a per beneficiary basis (defined as the total population of program area), the cost was \$1.40 in Ndola, \$4.14 in Kabwe, and \$5.48 in Livingstone.

Table ES1: Relationship between Costs and Outcomes (LINKAGES Costs Only)

	Ndola			Kabwe			Livingstone		
Number of Beneficiaries	258,842			62,310			87,609		
Indicator	Cost	Per Benefic	PCT Chg in Indicator	Cost	Per Benefic	PCT Chg in Indicator	Cost	Per Benefic	PCT Chg in Indicator
TIBF	\$60,549	\$0.23	-17%	\$46,245	\$0.74	10.5%	\$82,960	\$0.95	-1.9%
EBF	\$70,652	\$0.27	5%	\$54,980	\$0.88	13%	\$99,114	\$1.13	17%
ANC	\$70,702	\$0.27	0.4%	\$48,403	\$0.78	2.9%	\$93,446	\$1.07	2.9%
VCT Rate	\$79,959	\$0.31	33.3%	\$54,282	\$0.87	22.5%	\$101,181	\$1.15	41%
HIV-K	\$79,819	\$0.31	14.5%	\$54,241	\$0.87	21.5%	\$103,109	\$1.18	31%
TOTAL	\$361,681	\$1.40		\$258,151	\$4.14		\$479,809	\$5.48	

2. What are determinants of costs and cost effectiveness?

2.1. Key Cost Drivers

The clear cost drivers in all study districts during this period were training and monitoring and evaluation activities. Costs related to health workers and community trainings, including curriculum development, account for 56% of costs in Ndola, 50% in Kabwe, and 67% in Livingstone. Monitoring and evaluation activities represent the next largest cost component accounting on average for more than one-fifth of total costs over the study period (25% of costs in Ndola, 23% in Kabwe, and 17% in Livingstone).

Training of health providers accounted for majority of Training/Capacity Building costs (72% of training costs in Ndola, 60% in Kabwe, and 65% in Livingstone). For health provider training, costs were mostly concentrated in Psychosocial Counseling Training (26% of training costs in Ndola, 11% in Kabwe, and 39% in Livingstone) with Basic Training Course and Training of Trainers representing the next largest cost components.

2.2. Cost Effectiveness Results

Table ES2 shows the cost per new acceptor for each of the key indicators, except for ANC. Calculations of cost per new acceptor for ANC were not meaningful because of insignificant (less than 3%) or no change in behavior change rates. For TIBF, cost per new acceptor could only be calculated for Kabwe. TIBF endline rates in Ndola and Livingstone were lower than baseline rates, which made calculations meaningless.

Table ES2: Cost per Acceptor by Indicator (LINKAGES Costs Only)

Indicator	Ndola District	Kabwe District	Livingstone District
TIBF	NM*	\$145.43	NM*
EBF	\$108.67	\$139.65	\$135.23
VCT Rate	\$18.47	\$79.66	\$57.24
HIV-K	\$42.33	\$83.31	\$77.15

* NM= baseline indicator rate was higher than endline rate, which made calculations not meaningful.

2.3. Determinants of Cost Effectiveness

Target population or scale of the program had a strong influence on cost effectiveness across the study districts. Districts with higher target population produced lower cost per new acceptor across all indicators.

The relationship between cost effectiveness and the baseline rate is not clear. Data show that differences in cost effectiveness across districts can not be explained by higher or lower baseline rates.

Target population alone does not explain differences in cost effectiveness across indicators within the same district. While there was no difference in the target population for the indicators in the same district, cost effectiveness across indicators varied significantly. This may be partially explained by substantial deviation in the level of behavior change across indicators. One of the factors influencing behavior change outcomes is the level of activities aimed at each behavior. In all districts, the percent change in the indicator was higher and the cost per new acceptor was lower for HIV indicators (testing and knowledge) than for breastfeeding indicators (EBF and TIBF) in the same district. This may result from the shift in programmatic emphasis during the expansion phase towards improvement of VCT rates and services (including introduction of ARVs at the beginning of the expansion period).

Due to unavailability of partner data, it was not possible to analyze whether the level of partner participation was a factor in determining cost effectiveness.

3. What would it cost to replicate these activities in other districts and would it be cost effective?

To calculate the cost of replication in Zambia, only the costs of implementation activities are included (start-up costs would not be incurred again, and monitoring and evaluation costs do not produce behavior change and are not included in comparable studies).

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge are shown in Table ES3. These activities all target women with infants less than 6 months old, and can be grouped together to estimate replication costs per child. The costs of replicating LINKAGES activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge are \$15 per targeted child in Ndola, \$43 in Kabwe, and \$67 in Livingstone. The cost per beneficiary for this set of activities is \$0.75 for Ndola, \$2.09 for Kabwe, and \$3.28 for Livingstone.

Table ES3: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	Ndola	Kabwe	Livingstone
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K	\$194,799	\$130,430	\$287,609
Target Population	13,003	3,028	4,311
Cost per Child	\$15	\$43	\$67
Total Beneficiaries	258,842	62,310	87,609
Cost per Beneficiary	\$0.75	\$2.09	\$3.28

For the complete package of LINKAGES' activities aimed at improving all five indicators, the cost per beneficiary is \$0.91 for Ndola, \$2.49 for Kabwe, and \$4.0 for Livingstone.

Table ES4: Costs of Replicating Total Package of LINKAGES' Activities (LINKAGES Implementation Costs Only)

	Ndola	Kabwe	Livingstone
Total Costs of Infant Feeding and PMTCT Promotion Activities (US\$)	\$235,073	\$155,006	\$350,616
Total Beneficiaries	258,842	62,310	87,609
Cost per Beneficiary (US\$)	\$0.91	\$2.49	\$4.00

To measure cost effectiveness of replication, total implementation costs are compared with the number of new acceptors of the targeted behaviors (EBF, TIBF, etc), to calculate the implementation cost per new acceptor. Table ES5 presents the cost effectiveness of promoting each of the target behaviors for replication.

Table ES5: Cost Effectiveness of Promoting TIBF, EBF, ANC, VCT, and HIV/AIDS Knowledge for Replication (LINKAGES Implementation Costs)

Indicator	Cost per New Acceptor for Replication		
	Ndola	Kabwe	Livingstone
TIBF	NM	\$93	NM
EBF	\$77	\$94	\$106
VCT Rate	\$12	\$47	\$41
HIV-K	\$28	\$48	\$55

4. How can LINKAGES improve its cost effectiveness?

LINKAGES may be able to improve its cost effectiveness by selecting:

- areas with large target population
- optimal level of activities aimed at maximizing behavior change outcome rates.

Data show that target population does appear to have clear impact on cost effectiveness. Districts with higher target population produced lower cost per new acceptor across all indicators. One

interpretation of this finding is that there are economies of scale gained by increasing the target population. It is difficult to draw conclusions about the size of the target population at which further economies of scale cannot be gained and the level of activities may need to be increased once the target population exceeds certain levels, in order to achieve the same level of behavior change. What may have been thought of as fixed costs – employing one district level coordinator, district level training – may need to be increased once the target population exceeds a certain level.

Target population alone does not explain differences in cost effectiveness across indicators within the same district. The size of the target population and the behavior change outcomes together impact cost effectiveness of an intervention in a particular district. Selecting optimal mix of activities aimed at achieving maximum increase for each behavior covered by an intervention will improve cost effectiveness. The data available for this study do not allow for an analysis of individual activities or how a mix of activities impacts cost effectiveness to make concrete recommendations.

5. How does the cost and cost effectiveness of the interventions in the expansion sites compare with the NDP interventions?

This section compares the results from cost effectiveness studies of the NDP period and the expansion period to understand how differences in demonstration and scale-up models can affect cost effectiveness. The comparisons made throughout this section relate to implementation costs only. Disaggregating costs associated with implementation activities provides the most accurate basis for analysis of differences in the scale and model of implementation.

Before making comparisons, we considered difference in the timing of NDP and expansion sites studies and inflated the NDP findings to express them in the “expansion period terms”. The period of NDP study was April 2000 to April 2001, while the period of expansion sites study was June 2002 through August 2004. The adjustment was made to compare “Year 2000 dollars” (the NDP period) to “Year 2003 dollars” (the expansion period) using inflation in the U.S. We used the monthly Consumer Price Index (CPI-U) data compiled by the U.S. Bureau of Labor Statistics³ that reflects the midpoint of these two study periods. We took October 2000 index of 174 as the midpoint of the NDP period study, and July 2003 index of 183.9 as the midpoint of the expansion period study, and got an increase of 1.0569, which is the multiplier we used to inflate the NDP costs.

We compared NDP results with expansion phase results in the Ndola district first to analyze how scale-up within the same district impacted cost and effectiveness. Then we compared NDP results with the results in Kabwe and Livingstone to examine the differences in the results of the demonstration model compared with results in the newly expanded sites.

5.1. Cost and Effectiveness across NDP and Expansion Phase in the Ndola District

Data show that LINKAGES interventions during the expansion phase in the Ndola District were significantly more cost effective and were implemented at much lower unit cost (including cost per beneficiary and cost per targeted child) than during the demonstration phase in the same district.

³ CPI is based upon a Year 1982 Base of 100

Table ES6 presents the implementation costs for the complete package of LINKAGES' activities during NDP and Ndola District expansion periods aimed at improving all five indicators. The cost per beneficiary was calculated at \$2.49 for the NDP, and \$ 0.91 for the Ndola expansion phase.

Table ES6: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only)

	NDP		Ndola	
Number of Beneficiaries	125,650		258,842	
Indicator	Cost	Per Beneficiary	Cost	Per Beneficiary
TIBF	\$48,856	\$0.39	\$40,971	\$0.16
EBF	\$58,842	\$0.47	\$49,983	\$0.19
ANC	\$67,345	\$0.54	\$40,274	\$0.16
VCT Rate	\$67,660	\$0.54	\$52,411	\$0.20
HIV-K	\$70,746	\$0.56	\$51,434	\$0.20
TOTAL	\$313,450	\$2.49	\$235,073	\$0.91

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge in NDP and during expansion phase in Ndola District are shown in Table ES7.

Table ES7: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	NDP	Ndola District
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K (US\$)	\$246,105	\$194,799
Target Population	3,614	13,003
Cost per Child (US\$)	\$68	\$15
Total Beneficiaries	125,650	258,842
Cost per Beneficiary (US\$)	\$1.96	\$0.75

Table ES8 shows cost effectiveness results across NDP and the Ndola District Expansion Phase for EBF, VCT Rate, and HIV-Knowledge indicators. Because the endline rate of TIBF and ANC indicators for the Ndola expansion period study was lower than the baseline rate, cost per new acceptor could not be calculated for those indicators during the expansion period.

Table ES8: Cost Effectiveness of the NDP and Ndola Expansion Phase (LINKAGES Implementation Costs Only)

Indicator	NDP				Ndola District			
	Cost	Target Pop	% Change in Indicator	Cost per New Acceptor	Cost	Target Pop	% Change in Indicator	Cost per New Acceptor
EBF	\$58,842	3,614	18%	\$92	\$49,983	13,003	5%	\$77
VCT Rate	\$67,660	3,614	10%	\$193	\$52,411	13,003	33.3%	\$12
HIV-K	\$70,746	3,614	18%	\$108	\$51,434	13,003	14.5%	\$27

Overall, interventions in the Ndola District during the expansion phase were more cost effective. Across all indicators, cost per new acceptor was lower for the Ndola expansion model than for the Ndola demonstration model.

5.2. Cost and Effectiveness across NDP and Kabwe and Livingstone Districts

Table ES9 presents the implementation costs for the complete package of LINKAGES' activities during the NDP and the Kabwe and the Livingstone District expansion periods aimed at improving all five indicators. The cost per beneficiary was calculated at \$2.49 for the NDP, \$2.49 for the Kabwe district, and \$4.00 for the Livingstone district.

Table ES9: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only)

	NDP		Kabwe District		Livingstone District	
Number of Beneficiaries	125,650		62,310		87,609	
Indicator	Cost	Per Beneficiary	Cost	Per Beneficiary	Cost	Per Beneficiary
TIBF	\$48,856	\$0.39	\$29,525	\$0.47	\$62,742	\$0.72
EBF	\$58,842	\$0.47	\$37,169	\$0.60	\$77,805	\$0.89
ANC	\$67,345	\$0.54	\$24,576	\$0.39	\$63,007	\$0.72
VCT Rate	\$67,660	\$0.54	\$32,200	\$0.52	\$72,968	\$0.83
HIV-K	\$70,746	\$0.56	\$31,537	\$0.51	\$74,094	\$0.85
TOTAL	\$313,450	\$2.49	\$155,006	\$2.49	\$350,616	\$4.00

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge in NDP and during expansion phase in the Kabwe and the Livingstone districts are shown in Table ES10.

Table ES10: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	NDP	Kabwe District	Livingstone District
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K (US\$)	\$246,105	\$130,430	\$287,609
Target Population	3,614	3,028	4,311
Cost per Child (US\$)	\$68	\$43	\$67
Total Beneficiaries	125,650	62,310	87,609
Cost per Beneficiary (US\$)	\$1.96	\$2.09	\$3.28

Table ES11 shows cost effectiveness results across NDP and the Kabwe and the Livingstone Districts' Expansion Phase for TIBF (except for the Livingstone district), EBF, VCT Rate, and HIV-Knowledge indicators. Because the endline rate of ANC indicators for the Kabwe and the Livingstone districts was lower than the baseline rate, the cost per new acceptor could not be calculated for those indicators during the expansion period.

Table ES11: Cost Effectiveness of the NDP and Kabwe and Livingstone Districts Expansion Phase (LINKAGES Implementation Costs Only)

	NDP			Kabwe District			Livingstone District		
Target Population	3,614			3,028			4,311		
Indicator	Cost	% Change in Indic	Cost per New Acceptor	Cost	% Change in Indic	Cost per New Acceptor	Cost	% Change in Indic	Cost per New Acceptor
TIBF	\$48,856	30%	\$45	\$29,525	10.5%	\$93	\$62,742	-2%	NM*
EBF	\$58,842	18%	\$92	\$37,169	13%	\$94	\$77,805	17%	\$106
VCT Rate	\$67,660	10%	\$193	\$32,200	22.5%	\$47	\$72,968	41%	\$41
HIV-K	\$70,746	18%	\$108	\$31,537	21.5%	\$48	\$74,094	31%	\$55

*NM = calculations not meaningful, endline rate lower than baseline rate

Overall, the costs per new acceptor for HIV indicators (testing and knowledge) were lower in Kabwe and Livingstone than in the NDP. For the breastfeeding indicators (EBF and TIBF) the NDP achieved higher cost effectiveness than the expansion districts. This may be due to differences in the intervention packages for the NDP and the expansion sites, particularly with regard to strengthening the program component aimed at improving VCT rates and services (including introduction of ARVs). Comparison of the NDP and the expansion phase activities, and possibly follow-up study analyzing different mix of activities will help to better inform program design.

The target population in Kabwe and Livingstone is very small, which means that there are few opportunities for achieving economies of scale as interventions expand further within those districts. Data from the expansion phase in the Ndola district showed that the target population had a direct impact on cost effectiveness and that the cost per new acceptor improved significantly as interventions expanded coverage in the district.

1. Background to the Study

In 1997, the USAID-funded LINKAGES Project conducted an assessment visit to Zambia in collaboration with the Central Board of Health (CBoH) 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 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 into maternal and child health (MCH) and community services. The NDP was implemented in six clinics (Kabushi, Kaloko, Lubuto, Mushili, New Masala, and Twapia) and their seven catchment communities in the Ndola district.

Several Zambia districts expressed interest in adapting and replicating the 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 Livingstone Districts. In Ndola, eleven more clinics were added to the NDP sites bring the total of LINKAGES-supported sites to 17. In 2004 activities expanded to new sites in established PMTCT districts and sites in 3 new districts: Choma, Kapiri-Mposhi, and Kitwe, bringing the total sites to 55 (LINKAGES 2004). In 2004, site assessments were conducted in the new districts of Kazungula, Mkushi, Mufiulira, and Sinazongwe to further expand integrated PMTCT services.

The integrated PMTCT model includes training of health and community service providers, advocacy for national infant feeding policy, formative research in the local context for infant feeding decisions, BCC to develop appropriate messages and materials to help mothers make informed infant feeding and reproductive health decisions, and monitoring and evaluation of interventions to improve program planning. The objective of LINKAGES' Integrated PMTCT Program is to integrate improved counseling on infant feeding, maternal nutrition, voluntary counseling and testing (VCT) for HIV, and antiretroviral (ARV) prophylaxis into health and community services. It should be noted that ARV drugs were not part of NDP services and were added to the service package in June 2002 upon agreement of the government of Zambia to the introduction of ARVs..

In an effort to better understand program effectiveness, LINKAGES has initiated a series of studies to estimate costs and cost-effectiveness of program activities in multiple field offices. While LINKAGES has been successful in increasing optimal infant feeding and other PMTCT-related behaviors, USAID and other stakeholders are increasingly interested in the cost of these interventions relative to results. To date, a costing methodology applicable across countries and programs has been developed, and studies of costs in Ghana, Madagascar, and Jordan have been completed.

To provide comprehensive estimates of the costs of integrating infant feeding and HIV counseling into MCH and community services, LINKAGES initiated a cost and effectiveness analysis of the

Ndola Demonstration Project (NDP) in Zambia from April 2000 to April 2001, as well as an analysis of expanding PMTCT activities to other districts in country from June 2002 to August 2004. The first period represents the timing for the main implementation period of the first demonstration sites and the study was completed by Abt Associates Inc. in September, 2005.

This study represents the second of a two-study series on the cost effectiveness analysis of infant feeding and PMTCT services in Zambia. It focuses on the expansion/replication period of the project. The expansion districts examined in the study are Kabwe, Livingstone and Ndola. The study period is June 2002 to August 2004, coinciding with community surveys in those districts.

The following specific indicators were identified to measure the program's impact and achievements:

1. Exclusive breastfeeding rate among infants 0<6 months of age
2. Initiation of breastfeeding within the first hour of birth
3. Rate of assisted deliveries at a health center
4. Rate of VCT among pregnant women
5. Level of knowledge about the modes of HIV transmission

As mentioned above, the NDP was carried out in parts of the Ndola District, but the program was then expanded to cover all the clinics and communities in the district. Ndola was included for continuity of analysis and Livingstone and Kabwe as representative of expansion into new districts. It is anticipated that comparison of cost effectiveness over these two periods will provide insight regarding the impact of different packages of activities. In the future, the data can be used for an analysis of the full PMTCT package.

2. Objectives of the Study

This study was conducted to provide information to USAID and LINKAGES' in-country partners on the costs and cost-effectiveness of the LINKAGES-supported infant feeding and PMTCT interventions in Zambia. The objectives of the study are:

- to analyze cost-effectiveness of LINKAGES' infant feeding and PMTCT promotion activities in three expansion districts of Zambia from June 2002 – August 2004; and
- to determine cost implications of replicating these activities in other districts in Zambia and in the other countries of the region.

The results of this study are presented in many different ways to respond to the interests of different readers of this report. For example, USAID may be more interested in the cost effectiveness of its funding through LINKAGES, while the Zambian MOH may wish to see the total costs borne by various levels of the health system. Stakeholders can use the data to determine financial implications of introducing, replicating, scaling up, phasing out, and /or sustaining infant feeding and PMTCT promotion.

Depending on their objectives, different readers will be interested in analysis performed in somewhat different ways. While all the data analysis adheres to the methodology described in Section 4, costs are disaggregated in various ways to answer different questions. The specific questions of interest are:

- How do costs and outcomes compare across the three study districts?
- What are determinants of costs and cost effectiveness?
- What would it cost to replicate these activities in the new districts of Zambia and is it cost effective?
- How can LINKAGES improve the cost effectiveness of its infant feeding activities in the context of an integrated PMTCT approach?
- How does the cost effectiveness of the interventions in the expansion sites compare with the NDP interventions?

As detailed in the findings section, the data collected aimed to answer these questions, but drawing conclusions in other areas will require further study.

3. Program Description

LINKAGES has been working in Zambia since 1997 to “enable women to make and act effectively on informed choice to feed their infants optimally in the context of high HIV prevalence” (LINKAGES 2002). From 1997 to mid-1998, LINKAGES worked closely with the CBoH through the NFNC to develop guidelines and implementation strategies for the National Policy on Breastfeeding Practices and HIV/AIDS Transmission from Mother to Child. This effort resulted in the decision to pilot an integrated, comprehensive approach to PMTCT, with infant feeding as its centerpiece, in antenatal clinic settings and surrounding communities in Ndola district. This pilot, conducted between 1999 and 2002, is referred to as the Ndola Demonstration Project (NDP). In 2002, the LINKAGES’ program began implementation in northern Ndola District, Mtendere Clinic in Lusaka District, and Kabwe and Livingstone Districts. In 2004, the program expanded to new sites in established PMTCT districts and sites in 3 new districts: Choma, Kapiri-Mposhi, and Kitwe. This expansion brought the total of LINKAGES-supported sites to 55 in Central, Copperbelt, and Southern provinces.

The main objective of LINKAGES’ Zambia Integrated PMTCT Program is 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 in 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. (LINKAGES 2004)

From mid-1998 to 1999, LINKAGES worked closely with the Ndola Health Management Team (DHMT) and other partners, including the MOH, NFNC, Hope Humana, Horizons, and ZIPH to design the NDP intervention package. The NDP enhanced the antenatal care package at six DHMT health centers in Ndola: Lubuto, New Masala, Twapia, Mushili, Kaloko, and Kabushi. The NDP intervention package included:

- Infant feeding counseling, the content of which varied depending on whether a woman decided to undergo an HIV test and the results of that test

- Promoting exclusive breastfeeding for women who are HIV-negative or whose status is unknown
- HIV testing and counseling services in antenatal clinics
- Improving the capacity of communities to provide counseling and support services

Officially launched in 1999, the NDP was developed at a time when women did not have access to short-course antiretroviral drugs (ARVs), such as Nevirapine or AZT, to prevent MTCT. In 2002 the Government of Zambia agreed to the introduction of ARVs and thus the NDP integrated PMTCT approach was adapted to include ARVs in the intervention package and expanded to other areas within Ndola district and to other districts.

From 2000-2002, LINKAGES worked closely with its MOH, NGO, and other partners to implement, strengthen, and evaluate NDP. With the completion of the NDP, LINKAGES continued to work the Ndola District Health Management Board and District Health Management Team to expand PMTCT services to eleven more clinics in Ndola and began implementation in the new districts of Kabwe, Livingstone, and Lusaka. Formative research was completed in most new sites from 2001 to 2002 and baseline surveys were completed in all four sites in 2002. Health providers and community health volunteers have been trained in integration of PMTCT services into the existing set of services they offer women and their families in their respective communities.

In 2003-2004, LINKAGES consolidated expansion in the districts of Kabwe, Livingstone, and Lusaka, and northern part of the Ndola District. The project intensified advocacy to disseminate results of NDP, develop infant feeding policy, and strengthen monitoring of the Code of Marketing Breast-milk Substitutes. In 2004, as part of Zambia's National Strategic Framework for PMTCT Expansion, LINKAGES worked with its partners to expand PMTCT services to new sites in Choma, Kapiri-Mposhi, and Kitwe districts and conduct site assessments in the new districts of Kazungula, Mkushi, Mufulira, and Sinazongwe.

This study focuses on activities in three districts of Ndola, Kabwe, and Livingstone during the period from June 2002 to August 2004, the dates of the baseline and endline surveys conducted in these districts. By this time pilot phase of the project was completed and expansion activities were underway. The selection of this particular period allowed for relatively clear-cut analysis of expansion period of the project and replication costs associated with integrated infant feeding and PMTCT program.

3.1. LINKAGES Activities in the study districts during the study period

LINKAGES' activities during the study period were focused on training of health and community service providers in HIV/AIDS, infant feeding, and PMTCT, BCC activities, national policy and advocacy, and monitoring and evaluation activities. LINKAGES also implemented an MCH Link to PMTCT initiative to extend PMTCT to strengthen antenatal, safe motherhood, immunization, and nutrition of children up to 12 months old.

Training/Capacity Building

LINKAGES does not implement activities directly at the health center or community level, but instead strengthens the capacity of its local partners, who have community-level networks, to promote improved health behaviors. In this vein, LINKAGES' core activities during the study period included developing training strategies and training curricula and conducting training workshops for health care and community service providers.

For health providers, including district health officials, LINKAGES and its partners designed the following courses:

- **12-day Basic PMTCT Course for Health workers.** This course for health workers includes 2 weeks of classroom sessions that cover a wide range of topics, including breastfeeding physiology and practices, maternal and infant nutrition, infant feeding options in the context of HIV/AIDS, the epidemiology, prevention, and treatment of HIV/AIDS, STIs, HIV testing, VCT, and basic counseling. The course also includes a practicum during which participants visit the postnatal wards in a local clinic to observe breastfeeding practices and prepare replacement foods. The health service providers are prepared to understand the program, gain knowledge and skills for implementation of the program.
- **12-day Training of Trainers (TOT) Course.** The TOT workshop is designed to qualify previous participants of the 12-day health workers' course to conduct trainings in health facilities and communities. During the study period, participants in the TOT workshop included DHMT members and health workers from MOH and private/NGO clinics.
- **8-week Psychosocial Counseling Course and Practicum.** The psychosocial counseling course provides training in pre- and post-HIV counseling, including antenatal care, infant feeding, and HIV prevention and treatment counseling. The course includes two weeks in the classroom, followed by a five-week practicum and a final week back in the classroom. During the practicum, participants practice counseling in a clinic setting, usually seeing five or more patients during the practicum period.
- **4-day Orientation Workshop on use of NVP.** This orientation is offered to equip those who had been trained in basic PMTCT before the introduction of Nevirapine with knowledge and skills in the administration and use of short course Nevirapine for the prevention of MTCT.
- **3-day Training of Counselors on HIV Testing.** This course for counselors is offered in order to bridge the gap for clients waiting for long periods for their test results. It included gaining knowledge and skills in testing algorithm, HIV testing strategies, HIV test kits and data management. The 3-day course includes one and half day's classroom work and one and half day's practicum in testing for HIV.
- **6-day Infant Feeding Counseling Course for counselors.** The course is designed to equip already trained psychosocial counselors with counseling skills in infant feeding and techniques to help women attain optimal infant and young child feeding practices in the context of HIV and to prevent MTCT.
- **PMTCT Orientation workshops.** The PMTCT orientation course prepares the participants who had no knowledge and skills in PMTCT to be able to offer and integrate PMTCT services in their sites. This course included issues on infection prevention, the use of pantographs in labor, family planning, maternal and child nutrition, antenatal, labor and delivery, and postnatal care in PMTCT issues including basic counseling skills.

The 4-day workshop also orients participants on current standardized materials developed by CBOH.

Community members are trained to be community service providers (motivators). A slightly modified version of the 12-day basic and counseling courses for health workers, as well as on-the-job mentoring, are offered to members of local associations, women’s groups, community health workers, traditional birth attendants and healers, growth monitors, health neighborhood committees, and people living with HIV/AIDS. In addition, LINKAGES has designed the following course for community motivators:

For both the health worker and community training courses and workshops, participants are taught how to integrate BCC methods in their health service activities. They gain skills in communicating and negotiating for behavior change and safer sex. During the field visits participants observe breastfeeding practices, learn to prepare and reconstitute replacement feeds, visit markets to discuss with marketers issues of knowing their status, role play and discuss questions that arise from the drama.

Table 1 shows the number of people from the study districts of Ndola, Kabwe, and Livingstone trained by the project during the study period⁴:

Table 1: Number of people trained from the study districts during the study period

Course	Number of people trained		
	Ndola	Kabwe	Livingstone
12-day Basic PMTCT Course for Health workers	43	25	42
Community Basic PMTCT Course	25	25	50
12-day Training of Trainers (TOT) Course	10	10	11
8-week Psychosocial Counseling Course and Practicum	25	5	32
8-day Community Motivators Course	25	25	25
4-day Orientation Workshop on use of NVP	63		
Orientation Workshop on use of NVP for community members	126		
3-day Training of Counsellors on HIV Testing	6	6	6
6-day Infant Feeding Counselling Course for counselors	9	41	12
TOTAL	332	137	178

Behavior Change Communication

BCC activities constituted important part of LINKAGES activities, including training, curriculum development, and supervision at all levels. BCC component of all course curricula was strengthened, and LINKAGES provided technical assistance to develop print materials and media messages on infant feeding and PMTCT. Print materials were produced and disseminated to all LINKAGES-supported sites. Materials included 2 booklets, 7 brochures, an ANC health card, and 6 posters.

⁴ The table does not include information on people trained from the other LINKAGES-supported sites during the study period. It therefore does not represent the total number of people trained by the project during the period of June 2002 – August 2004, but only those from the three study districts.

To increase knowledge and practice of safer sexual and infant feeding behaviors, LINKAGES and its government partners mounted a large-scale “Act Now” campaign addressed to pregnant women and their families, health providers, youth, men, and community leaders. Materials produced and disseminated as part of this campaign included print materials, billboard messages, as well as 6 radio spots and 2 television spots broadcast nationally.

National Policy and Advocacy

During the study period, LINKAGES continued to participate in national policy and advocacy activities related to infant feeding. As a member of the PMTCT Task Force, LINKAGES advocated with the NFNC for Zambian adoption of the Global Strategy on Infant and Young Child Feeding.

LINKAGES contributed content on infant and young child feeding and BCC to a new national PMTCT curriculum approved by the CBoH for use in all PMTCT sites. Nine participants from LINKAGES-supported sites, including 5 participants from Ndola, 1 from Livingstone and 1 from Kabwe, were trained as trainers using new curriculum.

Monitoring and Evaluation

The main monitoring and evaluation activities were the random sample community surveys conducted in target populations of Ndola, Kabwe, and Livingstone districts in 2002 and 2004, and revision of monitoring system. M&E activities also included routine data collection and verification.

The clinic-based monitoring system developed for NDP was revised and introduced in both NDP sites and new sites so that site coordinators could accurately record and report data on program indicators, including provision of infant feeding counseling, VCT for first antenatal care attendees, and Nevirapine prophylaxis for pregnant women. LINKAGES trained 152 health providers in the use of the LINKAGES PMTCT monitoring registers and 24 data collectors for a rapid assessment (endline survey).

3.2. Partner Activities

LINKAGES relies on its various partners to promote targeted behaviors at the community level. During the study period, LINKAGES worked closely the Ministry of Health, including the Central Board of Health (CBOH), the National Food and Nutrition Commission (NFNC), and District Health Management Teams (DHMTs) in Ndola, Kabwe and Livingstone, which accessed community members through their health center staff.

3.2.1. Ministry of Health (Central Board of Health, National Food and Nutrition Commission and District Health Management Teams)

The primary role of the Ministry of Health working through the CBoH during the planning, design and implementation phases of the program expansion was to ensure that the project adhered to broader health sector national reform strategies. The National Voluntary Counseling and Testing Service, a Ministry of Health body working out of the University teaching Hospital, provided HIV test kits and related supplies, including gloves and pipettes to the three study districts throughout the implementation phase. During the later stages, MOH also supplied test kits and other vital supplies, including Nevirapine, directly to the DHMTs through its national supply system managed by the

National Medical Stores. The MOH and the CBoH were responsible for all staff emoluments in the target districts.

During the study period, LINKAGES worked closely with the NFNC to develop nutrition and PMTC policies and guidelines and to design the expansion phase of the program. The NFNC assisted in the formative research conducted in Kabwe and Livingstone prior to implementation of the program, the development of training strategies and curricula, and the review of monitoring and evaluation tools. During the study period, a NFNC representative participated in many of the training workshops and courses. More generally, the NFNC served as a key conduit between LINKAGES and the MOH and CBoH throughout the program design and implementation process.

The primary role of the District Health Management teams during the study period was to oversee all service provision activities, including supervising staff at participating clinics and monitoring activities ranging from health education talks to infant feeding counseling and VCT at the clinics. MOH/CBOH staff at all participating clinics were responsible for providing all antenatal care, infant feeding counseling, VCT services, and health education activities included in the program's intervention package. At most clinics, two or more health education talks on various infant feeding and PMTCT subjects were held every week in the MCH sections of these clinics. Clinic staff were also the direct contact people between the health staff and the communities. PMTCT focal point persons at each local clinic were responsible for the establishment of community mother support groups and helped community members to guide such groups through regular meetings at the health centers (clinics). Health Center staff also assisted these groups to plan and carry out community activities including community growth monitoring activities, health talks in public places, and the organization of the commemoration of important days such as the World AIDS and the Breastfeeding weeks and days.

3.2.2. Community-level partners

A key component of the program's approach to PMTCT was to build the capacity of and to utilize community-based volunteers to disseminate key messages, assist women in adopting improved health behaviors, and to provide HIV/AIDS counseling and support services for community members. During the study period, community volunteers participated in the basic and counseling courses adopted for community members. Community volunteers were selected due to their leadership or involvement in community health services and/or because they were well-respected members of the community. These volunteers were then expected to provide health education, counseling, and/or support services within their communities. They were at times expected to give health education talks to pregnant women at the health centers when staff did not have enough capacity to carry-out that activity.

4. Methodology

The methodology used in this study has been developed for the LINKAGES Project by Abt Associates Inc. It uses retrospective data to analyze cost effectiveness. The methodology is described in the detail in the “Methodology for Analyzing Cost and Effectiveness of LINKAGES’ Interventions” prepared by Abt Associates⁵.

The period examined in this study is June 2002 through August 2004. By this time pilot phase of the project was completed and expansion activities were underway. The selection of this particular period allowed for relatively clear-cut analysis of expansion period of the project and replication costs associated with integrated infant feeding and PMTCT program.

The measure of effectiveness used in this study is based on the findings of the baseline and endline surveys conducted in Kabwe, Ndola, and Livingstone in June 2002 and August 2004, respectively. A comparison of the results of these two surveys provides documentation of activity outcomes during the study period.

Study focuses on five key indicators to measure changes in infant feeding and PMTCT behaviors during the study period:

1. Exclusive breastfeeding (EBF) rate among infants 0<6 months of age
2. Timely initiation of breastfeeding (TIBF)
3. Rate of assisted deliveries at a health center (ANC)
4. Percentage of mothers with children aged 0<6 months who have had an HIV test (VCT Rate)
5. Percentage of mothers with children aged 0-6 months who know that HIV can be transmitted during breastfeeding (HIV knowledge)

One of the key features of the LINKAGES’ CEA methodology is that it considers both LINKAGES and partner costs. An important limitation of the subject study however is that partner costs have not been included and cost and effectiveness analysis is based solely on LINKAGES cost data because partner cost data were not available in time for inclusion in the analysis. With the understanding that partners made significant contributions to the implementation of project activities, the outcomes of this study are limited and do not reflect the entire intervention, which included both LINKAGES and partner activities, but LINKAGES interventions only.

4.1. Types of Costs Included in the Analysis

Determining the full cost of LINKAGES’ infant and young child feeding and PMTCT promotion activities required a review of LINKAGES’ in-country (field) costs and relevant headquarters costs. The study considers all of these costs. As mentioned in the previous section, partner cost data were not available in time for inclusion in the study.

⁵ This document is available upon request.

Costs were categorized into direct and indirect costs. *Direct costs* are costs that can be assigned relatively easily to a particular activity and with a high degree of accuracy. *Indirect costs* are costs that are incurred for common or joint objectives. Indirect costs cannot be identified readily and specifically with a particular activity, but are, nonetheless, necessary to the operations of the project. *Capital costs* refer to costs of goods that have useful life of more than one year (such as equipment or vehicles).

All LINKAGES’ field costs incurred during the study period to support and implement the LINKAGES/Zambia infant feeding and PMTCT promotion activities are included in this analysis. This includes the allocation of all overhead/fixed costs (office administration, rent, office equipment, etc.) associated with the LINKAGES/Zambia offices in Lusaka and Ndola.

Direct costs of the LINKAGES/DC office associated with program activities during the study period are included. Indirect costs of LINKAGES/AED (including AED/HQ office rent, financial and contracts management, etc.) are not included. This is in part because the overhead costs related to LINKAGES/AED would not be incurred during in-country replication. Further, the administrative and overhead structure exists for a wide array of activities, and does not vary based on infant feeding and PMTCT activities in Zambia.

Household or volunteer costs are not included in this study for several reasons – volunteers had worked in communities prior to LINKAGES interventions, the costs of volunteer time are not incurred costs, and the opportunity cost of the volunteers would have minimal impact on overall cost effectiveness.

Table 2 summarizes the types of costs included in this analysis.

Table 2: Types of Costs Included and Excluded in the Analysis

Partner	Costs Included	Costs Excluded
LINKAGES/DC	Direct costs – direct technical, financial, and administrative backstopping of country activities, consultancies, etc.	Indirect costs of the AED/HQ – AED/HQ office rent, financial and contracts management, etc.
LINKAGES/Zambia	Direct costs – cost of staff, training workshops, development of materials, monitoring and evaluation, etc. Indirect costs – cost of Zambia offices in Lusaka and Ndola (rent, utilities, support staff, administration, etc.) Capital costs – annualized costs of equipment, furniture, vehicle, etc. calculated based on useful life	None

Partners	None	<p>Direct costs – cost of staff, medical supplies (ARV drugs, HIV test kits, gloves, etc.), supervision, training workshops</p> <p>Indirect costs – administration, office maintenance, etc.</p> <p>Volunteer costs – estimated market value of the time of a community member who volunteered to provide health education talk in the community, etc.</p>
----------	------	---

4.2. Allocation of Costs to Activities

LINKAGES efforts to promote optimal infant feeding and PMTCT practices incur costs at both the LINKAGES/Zambia office and at the Washington, DC headquarters level.

All field costs incurred during the study period to support LINKAGES’ activities are included in this analysis. The direct costs for each activity that took place during the study period were compiled. LINKAGES/Zambia staff costs were allocated specifically by attendance in workshops, advocacy events, etc., with unspecified time allocated pro-rata across all activities based on the direct cost of the activity. LINKAGES/Zambia administrative costs were pro-rated across all activities based on the direct cost of each activity.

LINKAGES/DC costs were allocated to specific activities where appropriate (consultancies, workshop attendance, etc.). Non-specific support costs were pro-rated across all LINKAGES/Zambia activities based on the direct cost of each activity.

A one-year estimate of the capital costs was calculated based on useful life, and then pro-rated across all activities based on the direct cost of each activity. Thus, all costs incurred during the study period were allocated to the full set of LINKAGES’ activities.

After that, each activity that took place during the study period was reviewed with consideration of its objectives and content, and a subset of activities for Kabwe, Ndola, and Livingstone districts was identified as one supporting appropriate infant feeding and PMTCT activities at the health centers and communities in Kabwe, Ndola, and Livingstone districts and directly contributing to the appropriate behavior change among the target population. This subset of activities was included in the study (see Annex A for a list of all LINKAGES activities, specifying whether the activity costs were included in this study).

Global, or national-level, activities (such as technical assistance to CBoH in harmonization of National PMTCT materials, collaboration activities on consensus building on infant and young child feeding policy, VCT partnership meetings, etc.), were important elements of LINKAGES’ program in Zambia. However, they are not directly related or specifically designed for the study districts and have indirect impact on the behavior change indicator outcomes in the study districts. Thus, these activities are excluded from the calculations.

As described in section 3.1., during the study period LINKAGES developed and disseminated print materials and media messages on infant feeding and PMTCT. However, due to program-side delays the radio and television spot dissemination started on July 19, 2004 and August 17, 2004 respectively. Because these activities started at the end of the study period and had minimal or no impact on the study's behavior change indicators (dissemination of television spots even coincided with endline surveys in Ndola and Livingstone and took place after endline survey in Kabwe), they were not included in the study. Study only includes costs related to development and dissemination of print materials. Media activities required large investment of funds and it is regrettable that it was not possible to analyze the impact of those activities on behavior change indicators and on cost effectiveness.

Costs of global or general activities not directly related to infant feeding and PMTCT promotion such as meetings with officials from USAID/Washington or AED/HQ, proposal development for new business, etc. are not included in the study.

4.3. Allocation of Activity Costs to District Level Behavior Change

LINKAGES' costs for each activity were allocated to each of the study districts using several methods. Costs for district and community-level activities, including supervision, site assessments, district planning meetings, etc., were directly attributed to each district.

Costs for trainings were allocated based on number of participants from each district. Training costs were also prorated based on clinic and district level participants from each site and percentage of district population covered by program at the time of activity.

Costs for activities reaching all of LINKAGES intervention districts were divided into two groups. The first group included activities that were ongoing part of LINKAGES work, including development and dissemination of IEC materials, development/revision of training curricula, and revision of monitoring and reporting system. These costs were allocated evenly across all districts covered by the program during the study period. The second group included one-time activities, such as specific consultation meetings with partners, advocacy events, annual World Breastfeeding Week activities, etc. Costs for those activities were allocated evenly to each district based on the number of districts covered by the program at the time the activities took place.

Costs for development and dissemination of mass media messages, including radio spots and television spots, were not included in the study. Dissemination of those messages started at the very end of the study period and had minimal or no effect on the outcome rate of study indicators. While development and dissemination costs required a relatively large investment of program funds, it was not possible to evaluate impact of these activities on the behavior change.

The content of each activity was reviewed and apportioned based on its messages on EBF, TIBF, ANC, VCT Rate, and HIV Knowledge. For trainings, apportioning an activity to a behavior was based on review of training module and the time spent discussing each topic during the training course⁶. For some activities, there was no quantitative basis for apportionment to target behavior –

⁶ Review was conducted by field technical staff, including LINKAGES/Zambia Resident Advisor and Training Coordinator.

for example, routine supervision by LINKAGES and partner staff, district planning meetings, or distribution of T-shirts during the World Breastfeeding Week. In these cases, the costs of activities were apportioned evenly to all indicators.

In addition to the costs related to each indicator, costs are also presented on an aggregated basis for each study district. There is a higher validity to the district aggregated data, and changes in all behaviors may be converted to health impact for a calculation of cost effectiveness of the group of LINKAGES' activities in each district. Further, the aggregated costs provide a more accurate estimate of the cost of expansion, since a certain portion of activity costs is fixed, and would not be reduced even if only one behavior change were targeted.

4.4. Use of Household Surveys to Measure Outcomes

The measure of effectiveness used in this study is based on the findings of the random sample household surveys conducted in the target populations of Ndola, and Livingstone clinics in June 2002 and August 2004, and in the target populations of Kabwe in June 2002 and June 2004. Data from these surveys were used as baseline and endline indicator data for the study. All baseline surveys were a population-based household surveys conducted in the program catchment areas prior to implementation of PMTCT activities.

In Ndola, a total of 391 mothers of infants less than six months old and 103 women with infants from 6-<12 months old were interviewed. The follow-up (endline) survey included 391 mothers of infants less than six months old and 131 women with infants from 6-<12 months old were interviewed. In Kabwe, a total of 341 mothers of infants less than six months old and 107 women with infants from 6-<12 months old were interviewed for the baseline survey. The endline survey was conducted in June 2004. A total of 400 mothers of infants aged below six months were interviewed. In Livingstone, a total of 389 mothers of infants less than six months old and 107 women with infants from 6-<12 months old were interviewed for the baseline. Follow-up survey was conducted among 400 mothers of infants aged below 6 months and 120 mothers of infants aged 6-<12 months. Table 3 shows the 2002 baseline and 2004 endline data, by district, for each of the five indicators.

Table 3: Key Indicators – Baseline and Endline Data

Behavior Change Indicator	Ndola		Kabwe		Livingstone	
	2002	2004	2002	2004	2002	2004
TIBF - Initiation of breastfeeding rate within the first hour of birth	87%	70%	61.5%	72%	76.9%	75%
EBF - Exclusive breastfeeding rate of infants 0–5 months of age	69%	74%	60%	73%	47%	63.5%
ANC - Percentage of mothers who deliver at a health center vs. at home or in a hospital	98.6%	99%	96%	99%	96%	99%
VCT Rate - Percentage of mothers with children aged 0-5 months who have had an HIV test	12.7%	46%	8%	30.5%	7%	48%
HIV Knowledge - Percentage of mothers with children aged 0-6 months who know HIV can be transmitted during breastfeeding	84.5%	99%	78%	99.5%	68%	99%

4.5. Indicators of Cost Effectiveness

Three measures of cost and effectiveness are used in this study: 1) cost per beneficiary⁷, or cost per capita; 2) cost per targeted child⁸; and, 3) cost per new acceptor. While the first two indicators look at unit costs, the third indicator compares costs with outcomes. Since the outcome data available were at the behavior change level (not actual health outcomes), it is necessary to develop an indicator that compares costs with behavior change. The indicator used throughout this study to measure cost effectiveness is the cost per new acceptor (EBF, TIBF, ANC, VCT rate, HIV knowledge). The number of new acceptors is calculated by multiplying change in the rate of the targeted behavior (e.g., the EBF rate) by the total number of children targeted over the period. As an example, the indicator of the cost effectiveness of promoting EBF in each district is expressed in the following formula:

$$\frac{\text{[cost of activities to promote EBF]}}{\text{[target population] * ([EBF rate- 2004 endline] - [EBF rate- 2002 baseline])}}$$

The denominator, the difference in EBF rate between August 2004 and the baseline household survey multiplied by the target population, represents the number of new acceptors, or people whose behavior has changed as a result of the breastfeeding promotion interventions. The cost of activities to promote EBF is divided by the estimated number of new acceptors, providing a measure of the costs incurred per new acceptor to obtain the desired behavior change. A similar formula is applied with endline and baseline household survey rates for the other four indicators to measure the cost effectiveness of promoting informed infant feeding and PMTCT behaviors.

Higher or lower total cost or cost per beneficiary/targeted child does not necessarily imply lower or higher cost effectiveness defined as cost per new acceptor. Cost per new acceptor for each of the targeted behaviors is the measure used in this study to assess cost effectiveness.

4.6. Study districts

Selection of Ndola, Kabwe, and Livingstone districts for this study allowed for relatively clear-cut analysis of expansion period of the project and replication costs associated with integrated infant feeding and PMTCT program. As mentioned above, the NDP was carried out in parts of the Ndola District, but the program was then expanded to cover all the clinics and communities in the district. Ndola was included for continuity of analysis and Livingstone and Kabwe as representative of expansion into new districts.

4.7. Limitations of this Study

An important limitation of the study is that partner costs have not been included and cost and effectiveness analysis is based solely on LINKAGES cost data. The results are therefore limited to the outcomes of LINKAGES interventions only and do not reflect outcomes of the package of LINKAGES and partner interventions during the expansion phase of the project. Further, cost and

⁷ Where “beneficiary” is *any* person living in the program area

⁸ Where “targeted child” is all infants or young children of a certain age living in the program area

effectiveness analysis of the NDP, as well as LINKAGES' interventions in other countries, including Ghana, Madagascar, and Jordan, include partner costs. Unavailability of partner data for this study makes comparison of cost and effectiveness of the expansion phase interventions with LINKAGES infant feeding interventions in other countries more difficult and incomplete.

As described in section 4.2., the cost of media messages (including both radio and television spots) were not included in the study. Study only includes costs related to development and dissemination of print materials. Study outcomes do not reflect the impact of media messages on behavior change indicators and cost effectiveness.

The measures of cost effectiveness are based solely on a comparison of the results of the 2002 (baseline) and 2004 (endline) household survey data. These measures are accurate to the extent that the rates of TIBF, EBF, ANC, VCT, and HIV knowledge estimated through these two surveys accurately represent changes in behaviors and knowledge in LINKAGES' target districts. Because the cost effectiveness analysis is conducted over a limited time period, the results may not be representative of cost effectiveness over a longer time period. Interventions may become more efficient (increasing cost effectiveness) or it may be increasingly difficult to sustain high rates of the targeted behaviors (reducing cost effectiveness).

The measures of cost effectiveness also depend heavily on the allocation of costs of activities to the different behaviors targeted with each activity. Allocation of costs to each targeted behavior, as discussed in Section 4.3, is based on quantitative data wherever possible, which does not necessarily capture a basic distinction between what is required to encourage "one-time" behaviors (such as TIBF), versus "continuous" behaviors (such as EBF). As such, the allocation of costs to behavior change in this study may be overestimating the cost of TIBF (and underestimating the cost of EBF), since there is no adjustment to capture the difference between "one-time" and "continuous" behaviors.

5. Data Collection

5.1. LINKAGES' Costs

Data on LINKAGES' costs were collected from accounting records kept in the LINKAGES Headquarters and Zambia offices. Data were disaggregated by general DC support/management/administration costs, field-based costs, and by specific consultancies to support in-country activities.

LINKAGES' in-country (field-based) costs for activities during the study period were collected from the LINKAGES/Zambia imprest reports (monthly financial statement detailing income and expenses during the reporting month). Most costs to support in-country activities were paid directly by the field office and were accounted for through monthly imprest reports. Data collected from these reports contained high level of details, which allowed disaggregating by individual activity (such as the cost for a training on a line item basis) and for administrative costs (such as office equipment and supply expenditures). The data from Zambia were maintained in local currency (Zambian Kwacha) and converted to US dollars using the exchange rate for the month during which the cost was recorded in the financial ledgers in Zambia.

Data on costs paid directly by the DC office were collected from AED/HQ accounting system and whenever applicable cross-referenced with payment records for each vendor kept at the DC office. Those costs primarily included ones related to DC-based management, administrative and technical support costs; technical assistance trips; and consultancies to support in-country activities. There were also in-country costs that were paid directly from LINKAGES/DC office, including field-based third country national staff costs (salaries and allowances), direct payments for contracts that exceed maximum amount allowed for field-based transactions, and corporate equipment insurance payments.

5.2. Data Limitations

Given the nature of a retrospective study, data access was not always easy, and data sometimes required adjustment for use in this study. In some cases, data could not be reconciled across several sources, and a judgment was made to use available data from the source or sources deemed more reliable. There was no quantitative data regarding LINKAGES technical staff time dedicated to individual activities, so calculations of staff time costs are based on staff recall of estimated time spent on activities, expense reports, and program reports.

6. Findings

The findings presented are organized along each of the study questions:

- How do costs and outcomes compare across the three study districts?
- What are determinants of costs and cost effectiveness?
- What would it cost to replicate these activities in the new districts of Zambia and would it be cost effective?
- How can LINKAGES improve the cost effectiveness of its infant feeding activities in the context of an integrated PMTCT approach?
- How does the cost effectiveness of the interventions in the expansion sites compare with the NDP interventions?

Selected information is shown in the sections below to address the questions of interest. Annex B includes detailed LINKAGES' cost data.

6.1. How Do Costs and Outcomes Compare Across the Study Districts?

***Overall Finding:** Comparing costs on a per beneficiary basis, there appears to be a positive relationship between costs and behavior change outcomes. Generally higher costs were incurred where the rate of behavior change was higher. The cost per beneficiary was \$1.40 in Ndola, \$4.14 in Kabwe, and \$5.48 in Livingstone.*

6.1.1. Package of LINKAGES Interventions Compared with Outcomes

Table 4 presents the total cost of LINKAGES activities compared with the outcomes in each of the key indicators. Total costs were \$361,681 in Ndola, \$258,151 in Kabwe, and \$479,809 in Livingstone. On a per beneficiary basis (defined as total population of program area), the cost was \$1.40 in Ndola, \$4.14 in Kabwe, and \$5.48 in Livingstone.

Table 4: Relationship between Costs and Outcomes (LINKAGES Costs Only)

	Ndola			Kabwe			Livingstone		
Number of Beneficiaries	258,842			62,310			87,609		
Indicator	Cost	Per Beneficiary	PCT Chg in Indicator	Cost	Per Beneficiary	PCT Chg in Indicator	Cost	Per Beneficiary	PCT Chg in Indicator
TIBF	\$60,549	\$0.23	-17%	\$46,245	\$0.74	10.5%	\$82,960	\$0.95	-1.9%
EBF	\$70,652	\$0.27	5%	\$54,980	\$0.88	13%	\$99,114	\$1.13	17%
ANC	\$70,702	\$0.27	0.4%	\$48,403	\$0.78	3%	\$93,446	\$1.07	3%
VCT Rate	\$79,959	\$0.31	33.3%	\$54,282	\$0.87	22.5%	\$101,181	\$1.15	41%
HIV-K	\$79,819	\$0.31	14.5%	\$54,241	\$0.87	21.5%	\$103,109	\$1.18	31%
TOTAL	\$361,681	\$1.40		\$258,151	\$4.14		\$479,809	\$5.48	

Based on the three districts studied, there is a positive relationship between the costs incurred per beneficiary and behavior change indicator rates, with the exception of results in TIBF. Higher costs were incurred where the rate of behavior change was higher. The Ndola district, which had lower costs per beneficiary (\$1.40), experienced lower increases in EBF, ANC, VCT Rate, and HIV-K compared with the Livingstone district, which had higher costs (cost per beneficiary \$5.48) and realized higher increases in the behavior change rates. The same pattern is observed when comparing the cost per beneficiary and outcomes in Ndola and Kabwe, that is, outcomes in Kabwe (which incurred higher costs per beneficiary) were generally more positive than in Ndola (except for VCT Rate). The pattern can not be determined for the TIBF results because Ndola and Livingstone districts experienced no increases in TIBF rates.

With the exception of results in TIBF, the two districts with the higher costs (Livingstone and Kabwe) achieved higher increases in behavior change rates, while Ndola had lower costs and experienced lower increases.

6.2. What are Determinants of Costs and Cost Effectiveness?

***Overall Finding:** The cost of training activities and monitoring and evaluation are the key cost drivers. Training of health providers accounts for majority of training costs.*

The target population or scale of the program has clear impact on cost effectiveness across study districts. The data are mixed on whether the baseline rate of the targeted behavior impacts cost effectiveness.

The size of target population and the level of activities aimed at each behavior together impact cost effectiveness of an intervention in a particular district. Limited data suggest that the package of activities during the expansion phase influenced HIV behavior change indicators (testing and knowledge) more than breastfeeding indicators (EBF and TIBF). More data and further analysis of the impact of individual activities or the mix of activities are needed to make concrete recommendations.

Higher or lower total cost or cost per beneficiary does not necessarily imply lower or higher cost effectiveness (defined as cost per new acceptor). Many factors affect total costs and cost effectiveness. Costs are disaggregated in a variety of ways to examine patterns among different types of costs, and factors that affect cost effectiveness.

6.2.1. Key Cost Drivers

The cost patterns in the three districts are similar – costs in all districts were concentrated in training activities (56% of costs in Ndola, 50% in Kabwe, and 67% in Livingstone). Monitoring and evaluation (M&E) activities represent the next largest cost component accounting for almost one-fourth of total costs over the study period (25% of costs in Ndola, 23% in Kabwe, and 17% in Livingstone).

It should be noted that we could not analyze costs of IEC/BCC relative to M&E. As detailed in section 4.2., the cost of media messages (including both radio and television spots) were not included

in the study. The radio and television spot dissemination started on July 19, 2004 and August 17, 2004 respectively. These activities started at the end of the study period and had minimal or no impact on the study's behavior change indicators. Study only includes costs related to development and dissemination of print materials. IEC/BCC costs presented in this study therefore do not reflect the total actual costs of IEC/BCC activities during the study period.

Table 5 presents the cost of each activity during the study period.

Table 5: Cost By Activity (LINKAGES Costs Only)

Activity	Ndola			Kabwe			Livingstone		
	Cost	As % of Total Cost	Cost per Beneficiary	Cost	As % of Total Cost	Cost per Beneficiary	Cost	As % of Total Cost	Cost per Beneficiary
IEC/BCC	\$28,569	8%	\$0.11	\$28,569	11%	\$0.46	\$28,569	6%	\$0.33
Policy/Advocacy	\$34,898	10%	\$0.13	\$24,676	10%	\$0.40	\$32,316	7%	\$0.37
Capacity Building/Training	\$201,217	56%	\$0.78	\$130,102	50%	\$2.09	\$321,651	67%	\$3.67
M&E	\$87,477	24%	\$0.34	\$59,585	23%	\$0.96	\$82,788	17%	\$0.94
Program Design	\$9,520	3%	\$0.04	\$15,220	6%	\$0.24	\$14,485	3%	\$0.17
TOTAL	361,681	100%	\$1.40	\$258,152	100%	\$4.14	\$479,809	100%	\$5.48

Because training and capacity building activities account for such a significant portion of LINKAGES' costs (total training costs across the three study districts are \$652,970 or 59% of total costs), costs were further broken down to allow for cost analysis of each Training/Capacity Building activity.

Training/Capacity Building activities were divided into four major categories: training of health providers, training of community members, curriculum development/revision, Site Coordinator and other activities. Training of health providers accounted for majority of Training/Capacity Building costs (72% of costs in Ndola, 60% in Kabwe, and 65% in Livingstone). For health provider training costs were mostly concentrated in Psychosocial Counseling Training (26% of costs in Ndola, 11% in Kabwe, and 39% in Livingstone) with Basic Training Course and Training of Trainers representing the next largest cost components.

Community training courses account for 14% of Training/Capacity Building Costs in Ndola, 27% in Kabwe, and 26% in Livingstone.

Table 6 presents the cost of each Training/Capacity Building activity during the study period.

Table 6: Cost By Training/Capacity Building Activity (LINKAGES Costs Only)

Activity	Ndola			Kabwe			Livingstone		
	Cost	As % of Total Cost	Cost per Beneficiary	Cost	As % of Total Cost	Cost per Beneficiary	Cost	As % of Total Cost	Cost per Beneficiary
Orientation on use of NVP	\$9,235	5%	\$0.04	-	-	-	-	-	-
Psychosocial Counseling Training	\$53,175	26%	\$0.20	\$14,794	11%	\$0.23	\$126,052	39%	\$1.44
Regional Training	\$16,452	8%	\$0.06	\$3,974	3%	\$0.06	\$3,051	1%	\$0.03
Training of Trainers	\$21,831	11%	\$0.08	\$21,726	17%	\$0.35	\$21,990	7%	\$0.25
Basic Training -HW	\$33,651	17%	\$0.13	\$20,377	16%	\$0.33	\$52,072	16%	\$0.60
Training of Counselors in HIV Testing	\$3,289	2%	\$0.01	\$2,456	2%	\$0.04	\$2,945	1%	\$0.03
IF Training for Counselors	\$6,479	3%	\$0.03	\$14,845	11%	\$0.24	\$3,424	1%	\$0.04
Subtotal HW Training	\$144,112	72%	\$0.56	\$78,172	60%	\$1.25	\$209,534	65%	\$2.39
Basic Training - Community	\$16,993	8%	\$0.07	\$22,707	17%	\$0.37	\$39,070	12%	\$0.45
Community Motivators Training	\$10,347	5%	\$0.04	\$13,350	10%	\$0.22	\$44,702	14%	\$0.51
Orientation on use of NVP - community	\$1,964	1%	\$0.01	-	-	-	-	-	-
Subtotal Community Training	\$29,304	14%	\$0.11	\$36,057	27%	\$0.59	\$83,772	26%	\$0.96
Curriculum Development/Revision	\$8,780	4%	\$0.03	\$8,780	7%	\$0.14	\$8,780	3%	\$0.10
Site Coordinator & Other Activities	\$19,021	10%	\$0.07	\$7,094	6%	\$0.11	\$19,566	6%	\$0.22
TOTAL	\$201,217	100%	\$0.78	\$130,102	100%	\$2.09	\$321,651	100%	\$3.67

6.2.2. Cost Effectiveness and Partner Participation and Input

Due to unavailability of partner data, it was not possible to analyze whether level of partner participation was a factor in determining cost effectiveness.

6.2.3. Cost Effectiveness and Target Population

Table 7 shows the target population and the cost per new acceptor for each of the key indicators, except for ANC. Calculations of cost per new acceptor for ANC were not meaningful because of insignificant (less than 3%) or no change in behavior change rates. For TIBF, cost per new acceptor could only be calculated for Kabwe. TIBF endline rates in Ndola and Livingstone were lower than baseline rates, which made calculations not meaningful.

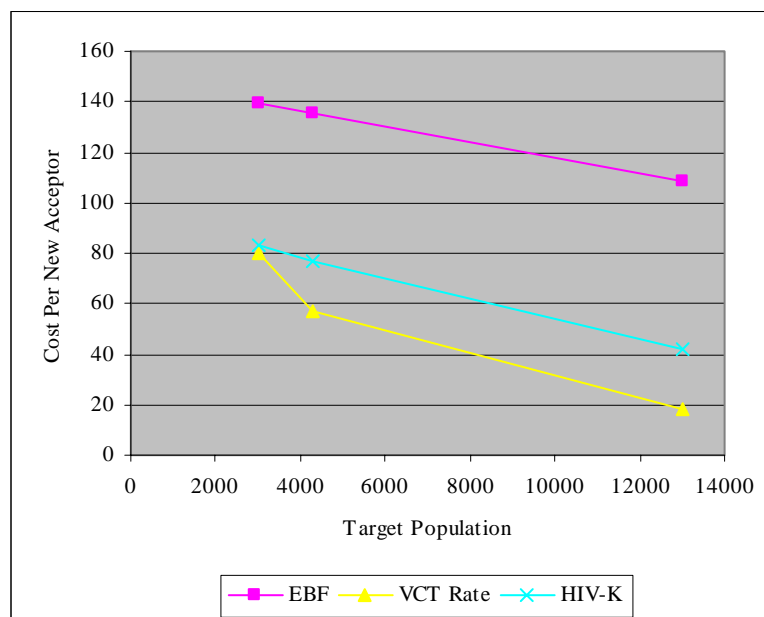
Table 7: Comparison of Target Population and Cost Effectiveness (LINKAGES Costs)

Indicator	Ndola			Kabwe			Livingstone		
	Total Cost	Target Population ⁹	Cost per New Acceptor	Total Cost	Target Population	Cost per New Acceptor	Total Cost	Target Population	Cost per New Acceptor
TIBF	\$60,549	13,003	NM	\$46,245	3,028	\$145.43	\$82,960	4,311	NM
EBF	\$70,652	13,003	\$108.67	\$54,980	3,028	\$139.65	\$99,114	4,311	\$135.23
VCT Rate	\$79,959	13,003	\$18.47	\$54,282	3,028	\$79.66	\$101,181	4,311	\$57.24
HIV-K	\$79,819	13,003	\$42.33	\$54,241	3,028	\$83.31	\$103,109	4,311	\$77.15

There is positive relationship between the size of target population and cost effectiveness – districts with higher target population were more cost effective. The target population in Ndola is much higher than the target population in the other two districts, and Ndola achieved significantly lower costs per new acceptor across all indicators.

Figure 1 graphs the target population against the cost per new acceptor. This graph shows that as the target population increases, the cost per new acceptor decreases.

Figure 1: Target Population and Cost per New Acceptor



Data suggest that the size of the target population or the scale of the program had a strong influence on cost effectiveness. There are savings to be gained because costs of many activities supported by LINKAGES do not increase with the size of population. A large share of LINKAGES costs is fixed and unit costs would decrease as total costs are spread over a larger population.

⁹ Target population for TIBF, EBF, VCT Rate, and HIV-K, is defined as women with children aged six months or less during the study period.

6.2.4. Cost Effectiveness and Behavior Change Rates

Differences in cost effectiveness between districts may be partially explained by the increasing cost of achieving higher indicator rates. Costs are generally expected to increase as one reaches higher behavior rates – that is, it may be more costly to increase EBF from 80% to 90% than it is to increase EBF from 30% to 40%.

In case of Zambia program during the study period, the relationship between cost effectiveness and the baseline rate is not clear. In several cases, lower baseline rates do not mean lower cost per new acceptor. For example, Ndola District has higher baseline rates for all indicators compared to Livingstone District, but cost per new acceptor in Ndola is lower than in Livingstone for all indicators. Table 8 shows the baseline and outcome rates of the targeted behaviors, together with the cost per new acceptor.

Table 8: Comparison of Baseline and Outcomes Behavior Rates and Cost Effectiveness (LINKAGES Costs)

Indicator	Ndola			Kabwe			Livingstone		
	Baseline Rate	Outcome Rate	Cost per New Acceptor	Baseline Rate	Outcome Rate	Cost per New Acceptor	Baseline Rate	Outcome Rate	Cost per New Acceptor
TIBF	87%	70%	NM	61.5%	72%	\$145.43	76.9%	75%	NM
EBF	69%	74%	\$108.67	60%	73%	\$139.65	47%	64%	\$135.23
VCT Rate	12.7%	46%	\$18.47	8%	30.5%	\$79.66	7%	48%	\$57.24
HIV-K	84.5%	99%	\$42.33	78%	99.5%	\$83.31	68%	99%	\$77.15

Data show that differences in cost effectiveness between districts can not be explained by higher or lower baseline rates.

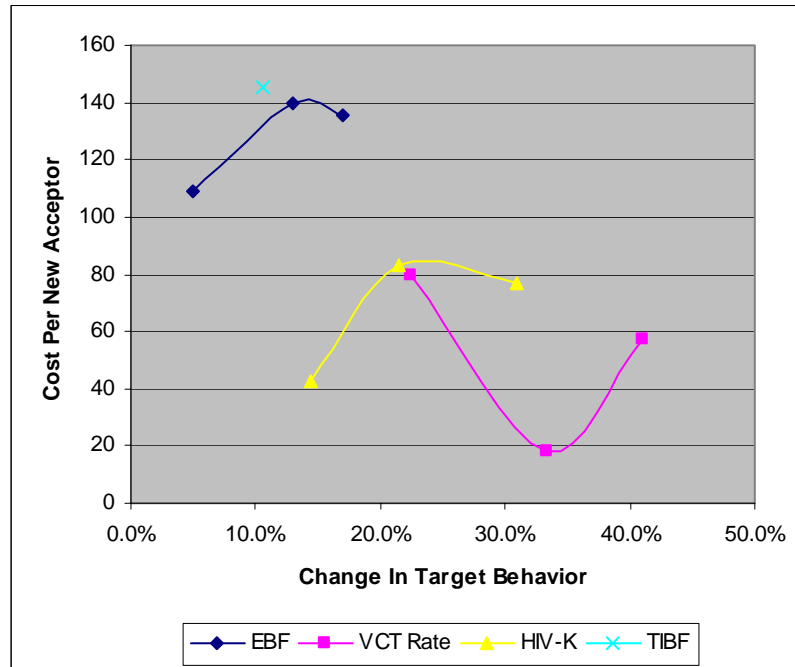
Baseline rates do not explain the differences in cost per new acceptor across indicators within the same district, either. Across all districts HIV indicators (VCT Rate and HIV-K) have higher baseline rates compared with breastfeeding indicators (TIBF and EBF) in their respective districts, but have higher cost effectiveness (Table 9). This may partially be explained by significantly higher percent change in the HIV indicators than in the breastfeeding indicators in every district. This may be due to the program focus on increasing VCT indicator rates more than breastfeeding indicators during the expansion phase. More data and further analysis of the impact of the mix of activities are needed to better inform cost effective program design and to make concrete conclusions.

Table 9: Comparison of Behavior Change Rates and Cost Effectiveness (LINKAGES Costs)

Indicator	Ndola			Kabwe			Livingstone		
	Total Cost	% Change in Indicator	Cost per New Acceptor	Total Cost	% Change in Indicator	Cost per New Acceptor	Total Cost	% Change in Indicator	Cost per New Acceptor
TIBF	\$60,549	-17%	NM	\$46,245	10.5%	\$145.43	\$82,960	-1.9%	NM
EBF	\$70,652	5%	\$108.67	\$54,980	13%	\$139.65	\$99,114	17%	\$135.23
VCT Rate	\$79,959	33.3%	\$18.47	\$54,282	22.5%	\$79.66	\$101,181	41%	\$57.24
HIV-K	\$79,819	14.5%	\$42.33	\$54,241	21.5%	\$83.31	\$103,109	31%	\$77.15

Figure 2 graphs the percent change in each indicator against the cost per new acceptor across three study districts. This graph shows that cost per new acceptor for VCT Rate and HIV Knowledge indicators is much lower than cost per new acceptor for EBF and TIBF across all districts.

Figure 2: Change in Target Behavior and Cost per New Acceptor



6.3. What Would It Cost to Replicate These Activities in Zambia and Would It Be Cost Effective?

Overall Finding: The cost per beneficiary to replicate total package of LINKAGES activities is \$0.91 for Ndola, \$2.49 for Kabwe, and \$4.00 for Livingstone districts. Replication costs per new acceptor are: for TIBF - \$93 in Kabwe; for EBF - \$77 in Ndola, \$94 in Kabwe, and \$106 in Livingstone; for VCT Rate - \$12 in Ndola, \$47 in Kabwe, and \$41 in Livingstone; for HIV Knowledge - \$28 in Ndola, \$48 in Kabwe, and \$55 in Livingstone.

6.3.1. Cost to Replicate Package of LINKAGES and Partner Activities

To calculate replication costs, activities in Zambia were classified as start-up/development activities, ongoing implementation activities, or monitoring and evaluation activities. Development activities are one-time activities that would not be replicated, such as development of training curriculums, development of IEC materials, site assessments, etc. Implementation activities are an ongoing part of the program and include training workshops, policy and advocacy meetings, etc. Monitoring and evaluation activities are aimed only at assessing outcomes from the interventions. Table 10 shows the

classification of all community-level behavior change activities conducted by LINKAGES and its partners.

Table 10: Classification of LINKAGES Activities June 2002 – August 2004

ACTIVITIES	Start-up, Implementation, or Monitoring/Evaluation
BCC Material Development	Start-up
World Breastfeeding Day Activities	Implementation
World AIDS Day Activities	Implementation
Orientation/Consensus Building Activities	Start-up
Curriculum Development	Start-up
Counselors Meetings	Implementation
Site Coordinator Activities	Implementation
Advocacy Meetings	Implementation
MCH Link Activities	Implementation
Ongoing Planning Meetings with DHMTs	Implementation
HW Basic PMTCT Course	Implementation
HW Psychosocial Counseling Course and Practicum	Implementation
HW TOT - Basic Course	Implementation
Community Basic Course	Implementation
Community Motivators Course	Implementation
Orientation Workshop on use of NVP	Implementation
Training of Counselors on HIV Testing	Implementation
Infant Feeding Counseling Course for counselors	Implementation
PMTCT Orientation workshop	Implementation
Site Assessment	Start-up
M&E Activities	Monitoring/Evaluation
Admin/Management/Supervision	Implementation

Disaggregating costs associated with implementation activities provides the most accurate estimate of costs of replicating activities in Zambia. Start-up or development costs would not be incurred for replication in country. Implementation costs cover the ongoing intervention costs such as the cost of training, services, and supervision. Monitoring and evaluation costs are not included as they do not directly produce behavior change and because evaluation costs are not included in other breastfeeding cost effectiveness studies, which are used for comparison.

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge are shown in Table 11. These activities all target women with infants less than 6 months old, and can be grouped together to estimate replication costs per child. The cost of replicating LINKAGES activities to promote TIBF, EBF, VCT, and HIV knowledge is \$15 per targeted child in Ndola, \$43 in Kabwe, and \$67 in Livingstone. The cost per beneficiary for this set of activities is \$0.75 for Ndola, \$2.09 for Kabwe, and \$3.28 for Livingstone.

Table 11: Costs of Replicating TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	Ndola	Kabwe	Livingstone
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K (US\$)	\$194,799	\$130,430	\$287,609
Target Population	13,003	3,028	4,311
Cost per Child (US\$)	\$15	\$43	\$67
Total Beneficiaries	258,842	62,310	87,609
Cost per Beneficiary (US\$)	\$0.75	\$2.09	\$3.28

For the complete package of LINKAGES' activities aimed at improving all five indicators, the cost per beneficiary is \$0.91 for Ndola, \$2.49 for Kabwe, and \$4.0 for Livingstone. Since activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge have a different target population than activities to promote ANC, it was not possible to estimate the cost per targeted child for the complete package of LINKAGES' activities.

Table 12 presents the implementation costs for the complete package of LINKAGES' activities aimed at improving all five indicators.

Table 12: Costs of Replicating Total Package of LINKAGES' Activities (LINKAGES Implementation Costs Only)

	Ndola	Kabwe	Livingstone
Total Costs of Infant Feeding and PMTCT Promotion Activities (US\$)	\$235,073	\$155,006	\$350,616
Total Beneficiaries	258,842	62,310	87,609
Cost per Beneficiary (US\$)	\$0.91	\$2.49	\$4.00

It should be made clear that this section examines only the cost of replicating activities in Zambia. It would be inaccurate to apply these data to estimate replication costs in other countries, even ones with similar programs, because of differences in local costs. Further, costs in this study are expressed in nominal terms, i.e. actual expenses at the time of the study period. Costs will need to be adjusted to reflect inflation if replicated.

This study did not include the costs of volunteer time (such as volunteer mother support group leaders or village health workers), since they are generally not formally employed and it is difficult to value their time. If these activities are replicated on a larger scale, volunteer costs could potentially become incurred costs, as paid workers may have to be employed to perform the tasks of the volunteers. Such costs would still have a small impact on overall costs, since the salaries paid would be low relative to other costs.

6.3.2. Cost Effectiveness of Replication

In addition to examining the cost of replicating these activities, we also examine the cost effectiveness of replicating these activities. As in the previous section, the cost of replicating these activities is limited to implementation costs only. Thus to measure cost effectiveness of replication,

total implementation costs are compared with the number of new acceptors of the targeted behaviors (EBF, TIBF, etc), to calculate the implementation cost per new acceptor.

Table 13 presents the cost effectiveness of promoting each of the target behaviors.

Table 13: Cost Effectiveness of Promoting TIBF, EBF, ANC, VCT, and HIV/AIDS Knowledge for Replication (LINKAGES Implementation Costs)

	Ndola			Kabwe			Livingstone		
Target Population	13,003			3,028			4,311		
Indicator	Total Cost	% Change in Indicator	Cost per New Acceptor	Total Cost	% Change in Indicator	Cost per New Acceptor	Total Cost	% Change in Indicator	Cost per New Acceptor
TIBF	\$40,971	-17%	NM	\$29,525	10.5%	\$93	\$62,742	-1.9%	NM
EBF	\$49,983	5%	\$77	\$37,169	13%	\$94	\$77,805	17%	\$106
VCT Rate	\$52,411	33.3%	\$12	\$32,200	22.5%	\$47	\$72,968	41%	\$41
HIV-K	\$51,434	14.5%	\$28	\$31,537	21.5%	\$48	\$74,094	31%	\$55

It should be noted that there are likely economies of scope to the integrated package of activities conducted by LINKAGES, such that the cost of targeting individual behaviors in isolation is probably higher. That is, if LINKAGES were to implement a program aimed at only one of these behaviors, the cost per new acceptor would likely be higher than what is shown here because some costs are fixed, and would not be reduced if only one behavior were targeted (for example office space for administration).

These data alone do not allow us to draw conclusions about the cost effectiveness of replicating these activities versus other child health interventions, although this methodology could be applied to analyze other interventions for comparison. A follow-on analysis that may allow further conclusions to be drawn on the cost effectiveness of LINKAGES' interventions relative to other child health interventions would be to compare these costs with morbidity or mortality averted or Disability Adjusted Life Years (DALY) gained as a result of behavior changes.

As mentioned above the expansion model covered by this study is a follow-up of the NDP model of PMTCT. The NDP model was expanded to the other areas within Ndola district, and replicated or adapted in other districts in Zambia. Section 6.5. below compares the results of the NDP and expansion studies.

6.4. How Can LINKAGES Improve its Cost Effectiveness?

Overall Finding: LINKAGES may be able to improve its cost effectiveness by expanding its target populations and by selecting optimal mix of activities aimed at achieving higher behavior change outcome rates. Data do not allow for an analysis of individual activities or how the mix of activities impacts cost effectiveness.

Data show that target population does appear to have clear impact on cost effectiveness. Districts with higher target population produced lower cost per new acceptor across all indicators. One interpretation of this finding is that there are economies of scale gained by increasing the target population. It is difficult to draw conclusions about the size of the target population at which further economies of scale cannot be gained and the level of activities may need to be increased once the target population exceeds certain levels, in order to achieve the same level of behavior change. What may have been thought as fixed costs – employing one district level coordinator, district level training – may need to be increased once the target population exceeds a certain level.

Target population alone does not explain differences in cost effectiveness across indicators within the same district. The size of target population and the level of behavior change together impact cost effectiveness of an intervention in a particular district. The level of behavior change can be influenced by selecting optimal mix of activities.

LINKAGES may be able to improve its cost effectiveness by selecting areas with large target population and by selecting optimal mix of activities aimed at achieving maximum increase for each of the behaviors covered by an intervention. The data available for this study do not allow analysis of individual activities or how the mix of activities impacts cost effectiveness.

6.5. How does the cost effectiveness of the interventions in the expansion sites compare with the NDP interventions?

***Overall Finding:** LINKAGES' interventions during the expansion phase in the Ndola District were significantly more cost effective across all behavior change indicators and were implemented at much lower unit cost (including cost per beneficiary and cost per targeted child) than during the demonstration phase in the same district. Comparing cost effectiveness of the expansion phase interventions in Kabwe and Livingstone districts with NDP, the cost per new acceptor for HIV indicators (testing and knowledge) were lower in Kabwe and Livingstone than in the NDP. For the breastfeeding indicators (EBF, TIBF), the NDP achieved higher cost effectiveness than Kabwe and Livingstone. Limited data suggest that package of interventions during the expansion phase influenced HIV indicators more than breastfeeding indicators. Analysis of the size of target population in Kabwe and Livingstone suggest that there are opportunities for achieving economies of scale as interventions expand further within those districts.*

This section compares the results from cost effectiveness studies of the NDP period and the expansion phase to understand how differences in demonstration and scale-up models can affect cost effectiveness. The comparisons made throughout this section relate to implementation costs only. Disaggregating costs associated with implementation activities provides the most accurate base for analysis of differences in the scale and model of implementation.

Before making comparisons, we considered difference in the timing of the NDP and the expansion sites studies and potential need to inflate the NDP findings to express them in the “expansion period terms”. The period of NDP study was April 2000 to April 2001, while the period of expansion sites study was June 2002 through August 2004.

The adjustment was made to compare “Year 2000 dollars” (the NDP period) to “Year 2003 dollars” (the expansion period) using inflation in the U.S. Inflation rate in the U.S. was used because fluctuations in exchange rate inherently incorporate differences in inflation between two countries -- that is the reason why in a period of high inflation a country's currency devalues quickly. So the U.S. inflation rate would incorporate the inflation changes for items originally denominated in US dollars (DC based costs, including technical/management/administrative support), as well as account for differences in inflation for costs originally denominated in Zambian Kwacha since they are expressed in US dollars using the exchange at that time, which reflects the local currency inflation.

We used the monthly Consumer Price Index (CPI-U) data compiled by the U.S. Bureau of Labor Statistics¹⁰ that reflects the midpoint of these two study periods. We took October 2000 index of 174 as the midpoint of the NDP period study, and July 2003 index of 183.9 as the midpoint of the expansion period study, and got an increase of 1.0569, which is the multiplier we used to inflate the NDP costs.

¹⁰ CPI is based upon a Year 1982 Base of 100

We compared NDP results with expansion phase results in Ndola district first to analyze how scale-up within the same district impacted cost and effectiveness. Then we compared NDP results with the results in Kabwe and Livingstone to examine the differences in the results of the demonstration model compared with results in the newly expanded sites.

6.5.1. Costs and Effectiveness Across NDP and Expansion Phase in the Ndola District

LINKAGES' Costs

Table 14 presents the implementation costs for the complete package of LINKAGES' activities during the NDP and the Ndola District expansion periods aimed at improving all five indicators. The cost per beneficiary was calculated at \$2.49 for NDP and \$0.91 for Ndola expansion phase.

Table 14: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only)

Number of Beneficiaries	NDP		Ndola	
	Cost	Per Beneficiary	Cost	Per Beneficiary
TIBF	\$48,856	\$0.39	\$40,971	\$0.16
EBF	\$58,842	\$0.47	\$49,983	\$0.19
ANC	\$67,345	\$0.54	\$40,274	\$0.16
VCT Rate	\$67,660	\$0.54	\$52,411	\$0.20
HIV-K	\$70,746	\$0.56	\$51,434	\$0.20
TOTAL	\$313,450	\$2.49	\$235,073	\$0.91

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge in the NDP and during the expansion phase in Ndola District are shown in Table 15. These activities all target women with infants less than 6 months old, and can be grouped together to estimate costs per child.

Table 15: Costs of TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	NDP	Ndola District
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K (US\$)	\$246,105	\$194,799
Target Population	3,614	13,003
Cost per Child (US\$)	\$68	\$15
Total Beneficiaries	125,650	258,842
Cost per Beneficiary (US\$)	\$1.96	\$0.75

Data show that unit costs of LINKAGES' interventions during the expansion phase in the Ndola District, including cost per beneficiary and cost per targeted child, were significantly lower than those during the demonstration phase in the same district.

Cost Effectiveness of the NDP and Ndola District Expansion Phase

Table 16 shows cost effectiveness results across NDP and Ndola District Expansion Phase for EBF, VCT Rate, and HIV-Knowledge indicators. It also presents various factors that can impact cost effectiveness, including total cost, the size of target population, and changes in outcome indicators. It is often not one factor that explains the cost effectiveness of an intervention, but interaction between all of these factors.

Because the endline rate of TIBF and ANC indicators for Ndola expansion period study was lower than the baseline rate, cost per new acceptor could not be calculated for those indicators during the expansion period. As in the previous section, only implementation costs are included. NDP costs are adjusted for inflation so that they are comparable to the costs during the expansion period.

Table 16: Cost Effectiveness across NDP and Ndola District Expansion Phase (LINKAGES Implementation Costs Only)

Indicator	NDP				Ndola District			
	Cost	Target Pop	% Change in Indicator	Cost per New Acceptor	Cost	Target Pop	% Change in Indicator	Cost per New Acceptor
EBF	\$58,842	3,614	18%	\$92	\$49,983	13,003	5%	\$77
VCT Rate	\$67,660	3,614	10%	\$193	\$52,411	13,003	33.3%	\$13
HIV-K	\$70,746	3,614	18%	\$108	\$51,434	13,003	14.5%	\$27

Overall, interventions in Ndola District during the expansion phase were more cost effective. Across all indicators, cost per new acceptor was lower for Ndola expansion model than for Ndola demonstration model. It is worth mentioning that the difference in cost effectiveness is especially notable for VCT Rate and HIV-K indicators. Cost effectiveness for those two indicators during the expansion phase is several times higher than during the demonstration phase.

Data show that target population does appear to have clear impact on cost effectiveness. The target population during the expansion phase was more than 3 times higher resulting in lower cost per new acceptor across all indicators. One interpretation of this finding is that there were economies of scale gained by increasing the target population. On the other hand, there may be economies of scale up to a certain threshold population, after which no further economies can be realized, and that higher spending or different or more activity is required to achieve behavior change in such a large population. Determining this threshold, and thus the population level at which additional activities are needed, would be a key factor to improving cost effectiveness of further expansion in the district.

While target population impacted cost effectiveness, it is the size of target population coupled with total costs and behavior change rates that drove cost effectiveness during the expansion phase of the interventions in the Ndola district. While cost per new acceptor for VCT Rate and HIV-K is several times lower during the expansion phase, cost per new acceptor for EBF is only 20% lower during the expansion phase. This outcome appears to be more related to behavior change rate – EBF rate increased by 18% during the demonstration phase and only by 5% during the expansion phase, while VCT Rate increased by 10% during the demonstration phase and by 33% during the expansion phase. This may reflect the shift in program focus during the expansion phase towards improvement of VCT rates and services (including introduction of ARVs at the beginning of the expansion period). The

combination of lower costs and higher target population seemed to offset the low rate of behavior change for the EBF indicator leading to higher cost effectiveness of EBF indicator during the expansion phase.

In review, it is the targeted behavior change outcomes and the size of target population together that seemed to have impacted cost effectiveness during the expansion phase in the Ndola district.

6.5.2. Costs and Effectiveness Across NDP, Kabwe and Livingstone Districts

LINKAGES' Costs

Table 17 presents the implementation costs for the complete package of LINKAGES' activities during the NDP and Kabwe and Livingstone District expansion periods aimed at improving all five indicators. The cost per beneficiary was calculated at \$2.49 for NDP, \$2.49 for Kabwe district, and \$4.00 for Livingstone district.

Table 17: Costs of Total Package of LINKAGES' Activities Allocated by Indicator (LINKAGES Implementation Costs Only)

	NDP		Kabwe District		Livingstone District	
Number of Beneficiaries	125,650		62,310		87,609	
Indicator	Cost	Per Beneficiary	Cost	Per Beneficiary	Cost	Per Beneficiary
TIBF	\$48,856	\$0.39	\$29,525	\$0.47	\$62,742	\$0.72
EBF	\$58,842	\$0.47	\$37,169	\$0.60	\$77,805	\$0.89
ANC	\$67,345	\$0.54	\$24,576	\$0.39	\$63,007	\$0.72
VCT Rate	\$67,660	\$0.54	\$32,200	\$0.52	\$72,968	\$0.83
HIV-K	\$70,746	\$0.56	\$31,537	\$0.51	\$74,094	\$0.85
TOTAL	\$313,450	\$2.49	\$155,006	\$2.49	\$350,616	\$4.00

The costs associated with implementation activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge in the NDP and during the expansion phase in Kabwe and Livingstone districts are shown in Table 18.

Table 18: Costs of TIBF, EBF, VCT, and HIV/AIDS Knowledge Promotion Activities (LINKAGES Implementation Costs Only)

	NDP	Kabwe District	Livingstone District
Total LINKAGES Costs of EBF, TIBF, VCT and HIV-K (US\$)	\$246,105	\$130,430	\$287,609
Target Population	3,614	3,028	4,311
Cost per Child (US\$)	\$68	\$43	\$67
Total Beneficiaries	125,650	62,310	87,609
Cost per Beneficiary (US\$)	\$1.96	\$2.09	\$3.28

Cost Effectiveness of the NDP and Kabwe and Livingstone Districts Expansion Phase

Table 19 shows cost effectiveness results across the NDP and Kabwe and Livingstone District Expansion Phase for TIBF (except for Livingstone district), EBF, VCT Rate, and HIV-Knowledge indicators. Because endline rate of ANC indicators for Kabwe and Livingstone districts was lower than baseline rate, cost per new acceptor could not be calculated for those indicators during the expansion period.

Table 19: Cost Effectiveness across NDP and Kabwe and Livingstone Districts Expansion Phase (LINKAGES Implementation Costs Only)

	NDP			Kabwe District			Livingstone District		
Target Population	3,614			3,028			4,311		
Indicator	Cost	% Change in Indicator	Cost per New Acceptor	Cost	% Change in Indicator	Cost per New Acceptor	Cost	% Change in Indicator	Cost per New Acceptor
TIBF	\$48,856	30%	\$45	\$29,525	10.5%	\$93	\$62,742	-2%	NM*
EBF	\$58,842	18%	\$92	\$37,169	13%	\$94	\$77,805	17%	\$106
VCT Rate	\$67,660	10%	\$193	\$32,200	22.5%	\$47	\$72,968	41%	\$41
HIV-K	\$70,746	18%	\$108	\$31,537	21.5%	\$48	\$74,094	31%	\$55

*NM = calculations not meaningful, endline rate lower than baseline rate

Cost per new acceptor for HIV indicators (testing and knowledge) were lower in Kabwe and Livingstone than in the NDP. For breastfeeding indicators (EBF and TIBF), NDP achieved higher cost effectiveness than expansion districts. This may be due to differences in the intervention packages for NDP and the expansion sites, particularly with regard to strengthening the program component aimed at improving VCT rates and services. Comparison of the NDP and the expansion phase activities, and possibly a follow-up study analyzing the different mix of activities will help to better inform program design.

The target population in Kabwe and Livingstone is very small, which means that there are few opportunities for achieving economies of scale as interventions expand further in those districts. Data from the expansion phase in the Ndola District showed that the target population had a direct impact on cost effectiveness and that the cost per new acceptor improved significantly as interventions expanded coverage in the district.

7. Review of Key Research Questions

The review of the cost data and cost effectiveness ratios allows us to answer some key questions about LINKAGES' work. Because partner cost data were not available, the results are limited to the outcomes of LINKAGES interventions only and do not reflect outcomes of the package of LINKAGES and partner interventions.

- *How do cost and outcomes compare across study districts?*
Comparing costs on a per beneficiary bases (defined as the total population of the program area), there appears to a positive relationship between costs and the behavior change outcomes. Generally higher costs were incurred where the rate of behavior change was higher. The cost per beneficiary was \$1.40 in Ndola, \$4.14 in Kabwe, and \$5.48 in Livingstone.
- *What are determinants of cost and cost effectiveness across the study districts?*
The cost of training activities and monitoring and evaluation costs are the key cost drivers. Health provider trainings, particularly Psychosocial Counseling Training, Basic Training and Training of Trainers, represent the largest cost component for training activities.

Data show that target population or scale of the program does appear to have clear impact on cost effectiveness. Districts with higher target population produced lower cost per new acceptor across all indicators. This suggests that there are economies of scale gained by increasing the target population. The data are mixed on whether the baseline rate of the targeted behavior impacts cost effectiveness.

Target population alone does not explain differences in cost effectiveness across indicators within the same district. The size of target population and the level of change of each targeted behavior together impact cost effectiveness of an intervention in a particular district. Limited data suggest that package of interventions during the expansion period influenced HIV behavior change indicators more than breastfeeding indicators.

Due to unavailability of partner data, it was not possible to evaluate the impact of partner participation on cost effectiveness.

- *What would it cost to replicate these activities in new districts and would it be cost effective?*
The cost of replicating LINKAGES activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge are \$15 per targeted child in Ndola, \$43 in Kabwe, and \$67 in Livingstone. The cost per beneficiary for this set of activities is \$0.75 for Ndola, \$2.09 for Kabwe, and \$3.28 for Livingstone.

For the complete package of LINKAGES' activities aimed at improving all five indicators, the cost per beneficiary is \$0.91 for Ndola, \$2.49 for Kabwe, and \$4.00 for Livingstone.

Cost Effectiveness of promoting TIBF, EBF, ANC, VCT, and HIV/AIDS Knowledge for replication is as follows:

	Cost per New Acceptor for Replication		
Indicator	Ndola	Kabwe	Livingstone
TIBF	NM	\$93	NM
EBF	\$77	\$94	\$106
VCT Rate	\$12	\$47	\$41
HIV-K	\$28	\$48	\$55

- How do costs and outcomes compare across study districts?*
 LINKAGES may be able to improve its cost effectiveness by selecting areas with large target population and by selecting optimal level of activities aimed at achieving higher behavior change outcome rates. Data show that there are economies of scale gained by increasing the target population. It is difficult to draw conclusions about the size of the target population at which further economies of scale cannot be gained and the level of activities may need to be increased once the target population exceeds certain levels, in order to achieve the same level of behavior change. The data available for this study do not allow analysis of individual activities or how the mix of activities impacts cost effectiveness.
- How does the cost and cost effectiveness of interventions during the expansion phase compare with the NDP interventions?*
 Data show that LINKAGES interventions during the expansion phase in the Ndola District were significantly more cost effective and were implemented at much lower unit cost (including cost per beneficiary and cost per targeted child) than during the demonstration phase in the same district.

The cost per beneficiary for complete package of LINKAGES' activities was calculated at \$2.49 for NDP and \$ 0.91 for Ndola expansion phase. The cost of replicating LINKAGES activities to promote TIBF, EBF, VCT, and HIV/AIDS knowledge are \$15 per targeted child in Ndola and \$68 in NDP. The cost per beneficiary for this set of activities is \$0.75 for Ndola and \$1.96 for NDP.

Across all indicators, costs per new acceptor were lower for Ndola expansion model than for Ndola demonstration model and were as follows:

	Cost per New Acceptor	
Indicator	NDP	Ndola District Expansion Phase
EBF	\$92	\$77
VCT Rate	\$193	\$13
HIV-K	\$108	\$27

Comparing unit cost of the NDP interventions with interventions in the new expansion districts of Kabwe and Livingstone, the cost per beneficiary for complete package of LINKAGES' activities was calculated at \$2.49 for the NDP, \$2.49 for the Kabwe District, and \$4.00 for the Livingstone District.

Overall, cost per new acceptor for HIV indicators (testing and knowledge) were lower in Kabwe and Livingstone than in the NDP. For breastfeeding indicators (EBF and TIBF), there was greater cost effectiveness in the NDP compared with the expansion districts.

The target populations in Kabwe and Livingstone are very small, which means that there are few opportunities for achieving economies of scale as interventions expand further within those districts. Data from expansion phase in the Ndola district showed that the target population had a direct impact on cost effectiveness and that the cost per new acceptor improved significantly as interventions expanded coverage in the district.

Annex A: List of LINKAGES' Activities

ACTIVITIES	Costs Included in this Study
IEC/BCC	
Consensus building on BCC strategies	Y
Development/dissemination of print BCC materials	Y
Development/dissemination of radio and TV spots	N
TA to partners on harmonization of National BCC Materials on PMTCT and National PMTCT Communication Strategy	N
“ACT NOW” BCC Campaign Launch	N
POLICY AND ADVOCACY	
Orientation/Advocacy/Consensus building activities	Y
World Breastfeeding Day and World AIDS Day activities	Y
National Strategic Framework Development on PMTCT Services (with CBOH)	N
Workshops to improve VCT update in the districts	Y
Counselors' Meetings	Y
International Trade Fair in Ndola	Y
Team sponsorship of inter-company relay	Y
MCH Link Activities	Y
Activities related to development of Global IYCF Strategy	N
TRAINING/CAPACITY BUILDING	
Curriculum development/revisions (LINKAGES' courses)	Y
Orientation workshop on use of NVP – health workers and community	Y
Health worker 12-day basic course	Y
Health worker psychosocial counseling course	Y
Regional Training	Y
Health worker TOT - Basic Course	Y
Infant feeding training for counselors	Y
Community 12-day basic course	Y
Community motivators course	Y
Community support meetings	Y
Site Coordinator activities	Y
PROGRAM DESIGN	
District strategic planning activities	Y
Site Assessments	Y
Community Assessment	N
MONITORING & EVALUATION	
Household survey (Baseline) – June 2002	Y
Household survey (Endline) – August 2004 ¹¹	Y

¹¹ For Kabwe District household survey was part of media baseline survey and took place in June 2004.

Data collection and verification visits, meetings, etc.	Y
NDP Data Interpretation workshop	N
Revision of monitoring and evaluation system (registers, data collection process, etc.)	Y
Final Program Assessment	N
OTHER ACTIVITIES	
Management visits by AED/HQ or USAID/HQ staff	N
Proposal development for new business	N
Meetings with partners on future collaboration	N
Conferences, General Presentations, etc.	N

Please note that the list above includes activities related to the study districts only. LINKAGES conducted variety of activities in the other districts, but those were not included in the list. Costs of those activities were not included in the study, either.

Annex B: Detailed Cost Data

SUMMARY OF LINKAGES COSTS - ALL DISTRICTS

Activity	TOTAL FULL Activity COSTS	Allocation to Study Districts (in %)			Allocation to Study Districts (in USD)			TOTAL COSTS - ALL Study Districts
		Ndola	Kabwe	Livingstone	Ndola	Kabwe	Livingstone	
IEC/BCC								
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	0.00	31%	31%	31%	0.00	0.00	0.00	0.00
Development and dissemination of print BCC Materials	312,781.47	9%	9%	9%	28,434.68	28,434.68	28,434.68	85,304.04
BCC Meeting with facilitators (Tina)	402.49	33%	33%	33%	134.16	134.16	134.16	402.49
SUBTOTAL IEC/BCC	313,183.96				28,568.84	28,568.84	28,568.84	85,706.53
IEC/BCC Costs as % of Total Costs					8%	11%	6%	8%
POLICY/ADVOCACY								
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	3,945.16	100%	0%	0%	3,945.16	0.00	0.00	3,945.16
WBW Activities - Year 2002	10,031.61	33%	33%	33%	3,343.87	3,343.87	3,343.87	10,031.61
WBW Activities - Year 2003	21,828.05	17%	17%	17%	3,638.01	3,638.01	3,638.01	10,914.03
WBW Activities - Year 2004	33,394.07	9%	9%	9%	3,035.82	3,035.82	3,035.82	9,107.47
World AIDS Day - Year 2002	9,314.65	33%	33%	33%	3,104.88	3,104.88	3,104.88	9,314.65
World AIDS Day - Year 2003	26,459.35	17%	17%	17%	4,409.89	4,409.89	4,409.89	13,229.68
District Partnership Meeting - Ndola (EM)	56.21	100%	0%	0%	56.21	0.00	0.00	56.21
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	5,678.01	33%	33%	33%	1,892.67	1,892.67	1,892.67	5,678.01
Meeting w/ Counselors in Charge (JT)	1,206.78	33%	33%	33%	402.26	402.26	402.26	1,206.78
Wrkshp to improve VCT uptake in Ndola sites	0.00	100%	0%	0%	0.00	0.00	0.00	0.00
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	2,065.92	0%	0%	100%	0.00	0.00	2,065.92	2,065.92
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	0.00	33%	33%	33%	0.00	0.00	0.00	0.00
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	525.79	33%	33%	33%	175.26	175.26	175.26	525.79
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)	0.00				0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Ndola	5,576.05	100%	0%	0%	5,576.05	0.00	0.00	5,576.05
Quarterly Counselors Meeting - Kabwe	3,205.83	0%	100%	0%	0.00	3,205.83	0.00	3,205.83
Quarterly Counselors Meeting - Liv	7,851.45	0%	0%	100%	0.00	0.00	7,851.45	7,851.45
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	929.34	0%	0%	100%	0.00	0.00	929.34	929.34
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	1,199.06	33%	33%	33%	399.69	399.69	399.69	1,199.06
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	0.00	100%	0%	0%	0.00	0.00	0.00	0.00
Team sponsorship for inter-company relay	1,726.24	9%	9%	9%	156.93	156.93	156.93	470.79
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	3,402.95	100%	0%	0%	3,402.95	0.00	0.00	3,402.95
MCH Link Activities - (not site specific)	10,014.09	9%	9%	9%	910.37	910.37	910.37	2,731.11
MCH Activities - Ndola	448.40	100%	0%	0%	448.40	0.00	0.00	448.40
MCH Activities - Kabwe	0.00	0%	100%	0%	0.00	0.00	0.00	0.00
MCH Activities - Liv	0.00	0%	0%	100%	0.00	0.00	0.00	0.00
SUBTOTAL POLICY/ADVOCACY	148,859.01				34,898.43	24,675.49	32,316.37	91,890.29
Policy/Advocacy Costs as % of Total Costs					10%	10%	7%	8%
CAPACITY BUILDING (including Training)								
Curriculum Development or Revisions								
Basic Course Curriculum Revision	30,911.58	9%	9%	9%	2,810.14	2,810.14	2,810.14	8,430.43
Community training curriculum review wrkshp (in Siavonga)	39,611.25	9%	9%	9%	3,601.02	3,601.02	3,601.02	10,803.07
Short Course in IF Counseling (JT & MSJ)	0.00	9%	9%	9%	0.00	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	2,090.56	9%	9%	9%	190.05	190.05	190.05	570.15
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	2,735.68	9%	9%	9%	248.70	248.70	248.70	746.10
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	21,229.78	9%	9%	9%	1,929.98	1,929.98	1,929.98	5,789.94
TOTAL Curriculum Development/Revisions	96,578.86				8,779.90	8,779.90	8,779.90	26,339.69

Training Courses								
Orientation wrkshp on use of NVP (63 previously trained HW)	9,235.27	100%	0%	0%	9,235.27	0.00	0.00	9,235.27
SUBTOTAL Orientation Workshop on use of NVP	9,235.27				9,235.27	0.00	0.00	9,235.27
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	28,813.94	94%	0%	0%	27,176.44	0.00	0.00	27,176.44
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	0.00	100%	0%	0%	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	12,735.18	94%	0%	0%	11,973.35	0.00	0.00	11,973.35
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	34,309.20	25%	17%	44%	8,577.30	5,986.06	15,024.10	29,587.45
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	4,814.68	0%	70%	0%	0.00	3,360.14	0.00	3,360.14
Psychosocial Counseling Training, Ph 2 Supervision - Liv	414.65	0%	0%	88%	0.00	0.00	363.15	363.15
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	21,789.09	25%	25%	44%	5,447.27	5,447.27	9,524.36	20,418.91
Psychosocial Counseling Training, Phase 1 (22pp - Liv)	61,592.30	0%	0%	97%	0.00	0.00	59,906.60	59,906.60
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	2,083.19	0%	0%	97%	0.00	0.00	2,026.17	2,026.17
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	40,310.66	0%	0%	97%	0.00	0.00	39,207.41	39,207.41
SUBTOTAL Psychosocial Counseling Training	206,862.89				53,174.36	14,793.48	126,051.80	194,019.63
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHM	28,110.27	44%	12%	7%	12,474.60	3,321.06	2,040.26	17,835.92
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	59,904.19	7%	1%	2%	3,977.57	652.57	1,010.64	5,640.78
SUBTOTAL Regional Training	88,014.46				16,452.17	3,973.63	3,050.89	23,476.70
Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	48,256.55	23%	28%	28%	11,040.13	13,655.76	13,309.43	38,005.33
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	74,224.95	15%	11%	12%	10,790.31	8,070.38	8,680.42	27,541.11
SUBTOTAL Training of Trainers	122,481.50				21,830.44	21,726.14	21,989.86	65,546.43
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	25,431.21	77%	0%	11%	19,562.47	0.00	2,697.72	22,260.19
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	22,872.44	0%	72%	0%	0.00	16,429.71	0.00	16,429.71
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	31,577.92	0%	13%	78%	0.00	3,947.24	24,660.15	28,607.39
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	50,884.34	0%	0%	49%	0.00	0.00	24,713.73	24,713.73
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	40,886.22	34%	0%	0%	14,088.90	0.00	0.00	14,088.90
Subtotal Basic Training for Health Workers	171,652.13				33,651.37	20,376.95	52,071.60	106,099.92
Training of Counselors in HIV Testing in Ndola	16,446.93	20%	15%	18%	3,289.39	2,455.70	2,944.64	8,689.72
Subtotal Training of Counselors in HIV Testing	16,446.93				3,289.39	2,455.70	2,944.64	8,689.72
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	9,258.16	0%	34%	0%	0.00	3,182.91	0.00	3,182.91
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	13,068.85	0%	0%	26%	0.00	0.00	3,423.98	3,423.98
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	16,557.63	39%	0%	0%	6,479.07	0.00	0.00	6,479.07
IF Counseling Course for counselors in Kabwe (25pp)	26,785.54	0%	44%	0%	0.00	11,661.85	0.00	11,661.85
Subtotal Training of Counselors in Infant Feeding	65,670.18				6,479.07	14,844.76	3,423.98	24,747.81
Community Basic Courses, Ndola (25 pp)	16,992.83	100%	0%	0%	16,992.83	0.00	0.00	16,992.83
Community Basic Courses, Kabwe (25pp)	22,707.36	0%	100%	0%	0.00	22,707.36	0.00	22,707.36
Community Basic Course, Livingstone (25 pp)	39,070.16	0%	0%	100%	0.00	0.00	39,070.16	39,070.16
Subtotal Community Basic Course	78,770.35				16,992.83	22,707.36	39,070.16	78,770.35
Community Motivators Training in Kabwe (25 pp)	13,349.63	0%	100%	0%	0.00	13,349.63	0.00	13,349.63
Community Motivators Training in Liv (25 pp)	23,229.86	0%	0%	100%	0.00	0.00	23,229.86	23,229.86
Community Motivators Training in Ndola (25 pp)	10,347.28	100%	0%	0%	10,347.28	0.00	0.00	10,347.28
Community Motivators Training, Liv	21,471.96	0%	0%	100%	0.00	0.00	21,471.96	21,471.96
Subtotal Community Motivators Training	68,398.72				10,347.28	13,349.63	44,701.82	68,398.72

Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	2,045.57	96%	0%	0%	1,964.40	0.00	0.00	1,964.40
SUBTOTAL Orientation Workshop on use of NVP - Community Members	2,045.57				1,964.40	0.00	0.00	1,964.40
National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	0.00	63%	0%	13%	0.00	0.00	0.00	0.00
TOTAL TRAINING COURSES	829,578.00				173,416.56	114,227.65	293,304.74	580,948.95
Other								
Community Support Meetings - Ndola & Liv	2,061.24	50%	0%	50%	1,030.62	0.00	1,030.62	2,061.24
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	0.00	33%	33%	33%	0.00	0.00	0.00	0.00
Site Coordinators meeting	3,586.10	33%	33%	33%	1,195.37	1,195.37	1,195.37	3,586.10
Site Coordinator activities - Ndola	15,523.20	100%	0%	0%	15,523.20	0.00	0.00	15,523.20
Site Coordinator activities - Kabwe	5,898.77	0%	100%	0%	0.00	5,898.77	0.00	5,898.77
Site Coordinator activities - Liv	15,423.90	0%	0%	100%	0.00	0.00	15,423.90	15,423.90
Orientation visit for RA (EM) to Ndola Sites	1,271.50	100%	0%	0%	1,271.50	0.00	0.00	1,271.50
Orientation visit for RA (EM) to Livingstone	1,916.20	0%	0%	100%	0.00	0.00	1,916.20	1,916.20
TOTAL OTHER	45,680.90				19,020.68	7,094.13	19,566.09	45,680.90
SUBTOTAL CAPACITY BUILDING/TRAINING	971,837.76				201,217.14	130,101.68	321,650.72	652,969.54
Capacity Building/Training Costs as % of Total Costs					56%	50%	67%	59%
MONITORING and EVALUATION								
Baseline Surveys in Kabwe, Livingstone and Ndola North	64,162.38	33%	33%	33%	21,387.46	21,387.46	21,387.46	64,162.38
M&E data verification, etc. visits to Kabwe and Ndola	13,646.40	50%	50%	0%	6,823.20	6,823.20	0.00	13,646.40
Data Collection - Ndola	1,777.51	100%	0%	0%	1,777.51	0.00	0.00	1,777.51
M&E Capacity Building, Data collection & verification visits, meeting, etc.	67,582.08	9%	9%	9%	6,143.83	6,143.83	6,143.83	18,431.48
Orientation visit for M&E Officer to Livingstone (5 clinics)	1,422.60	0%	0%	100%	0.00	0.00	1,422.60	1,422.60
Revision of NDP mon&rep system and implementation in NDP & expansion sites (ongoing)	2,526.05	9%	9%	9%	229.64	229.64	229.64	688.92
Revision of registers (part of above row)	3,611.50	9%	9%	9%	328.32	328.32	328.32	984.96
Meeting with Site Coordinators on revision of registers, Lusaka	7,884.55	9%	9%	9%	716.78	716.78	716.78	2,150.33
Visit to Ndola site to obtain feedback on use of revised registers	0.00	9%	9%	9%	0.00	0.00	0.00	0.00
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	4,148.13	0%	0%	100%	0.00	0.00	4,148.13	4,148.13
Media Evaluation/Endline Survey Kabwe	23,955.92	0%	100%	0%	0.00	23,955.92	0.00	23,955.92
Household Survey in Ndola & Livingstone - General (not site specific)	31,124.61	50%	0%	50%	15,562.31	0.00	15,562.31	31,124.61
Household Survey - Ndola	34,507.74	100%	0%	0%	34,507.74	0.00	0.00	34,507.74
Household Survey - Liv	32,848.72	0%	0%	100%	0.00	0.00	32,848.72	32,848.72
SUBTOTAL M&E	289,198.20				87,476.77	59,585.15	82,787.78	229,849.70
M&E Costs as % of Total Costs					24%	23%	17%	21%
PROGRAM DESIGN								
District Planning Wrkshps - Ndola and Kabwe	1,469.81	50%	50%	0%	734.90	734.90	0.00	1,469.81
Strategic Planning meeting for district directors, etc.	17,259.00	33%	33%	33%	5,753.00	5,753.00	5,753.00	17,259.00
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC)	11,400.61	0%	50%	50%	0.00	5,700.30	5,700.30	11,400.61
Launch of VCT services in Maramba clinic, Liv	0.00	0%	0%	100%	0.00	0.00	0.00	0.00
Planning Meeting for Kabwe DHMT	0.00	0%	100%	0%	0.00	0.00	0.00	0.00
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	14,322.11	17%	17%	17%	2,387.02	2,387.02	2,387.02	7,161.06
Site Assessments with NFNC	5,158.73	13%	13%	13%	644.84	644.84	644.84	1,934.52
Planning meeting w/ Ndola DHMT	0.00	100%	0%	0%	0.00	0.00	0.00	0.00
SUBTOTAL PROGRAM DESIGN	49,610.26				9,519.77	15,220.07	14,485.16	39,225.00
Program Design Costs as % of Total Costs					3%	6%	3%	4%
SUBTOTAL General Meetings, Global Activities, Administration, Other	0.00				0.00	0.00	0.00	0.00
LINKAGES ACTIVITY COSTS	1,772,689.19				361,680.95	258,151.23	479,808.88	1,099,641.06
% of TOTAL					33%	23%	44%	

SUMMARY OF LINKAGES COSTS - NDOLA DISTRICT

Activity	Total Costs - Ndola District	Allocation to Indicators - Ndola District				
		TIBF	EBF	ANC	VCT	HIV-K
IEC/BCC						
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	0.00	0.00	0.00	0.00	0.00	0.00
Development and dissemination of print BCC Materials	28,434.68	5,686.94	5,686.94	5,686.94	5,686.94	5,686.94
BCC Meeting with facilitators	134.16	26.83	26.83	26.83	26.83	26.83
SUBTOTAL IEC/BCC	28,568.84	5,713.77	5,713.77	5,713.77	5,713.77	5,713.77
POLICY/ADVOCACY						
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	3,945.16	0.00	0.00	789.03	1,578.06	1,578.06
WBW Activities - Year 2002	3,343.87	668.77	668.77	668.77	668.77	668.77
WBW Activities - Year 2003	3,638.01	727.60	727.60	727.60	727.60	727.60
WBW Activities - Year 2004	3,035.82	607.16	607.16	607.16	607.16	607.16
World AIDS Day - Year 2002	3,104.88	620.98	620.98	620.98	620.98	620.98
World AIDS Day - Year 2003	4,409.89	881.98	881.98	881.98	881.98	881.98
District Partnership Meeting - Ndola (EM)	56.21	11.24	11.24	11.24	11.24	11.24
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	1,892.67	378.53	378.53	378.53	378.53	378.53
Meeting w/ Counselors in Charge (JT)	402.26	80.45	80.45	80.45	80.45	80.45
Wrkshp to improve VCT uptake in Ndola sites	0.00	0.00	0.00	0.00	0.00	0.00
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	0.00	0.00	0.00	0.00	0.00	0.00
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	175.26	35.05	35.05	35.05	35.05	35.05
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Ndola	5,576.05	1,115.21	1,115.21	1,115.21	1,115.21	1,115.21
Quarterly Counselors Meeting - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	0.00	0.00	0.00	0.00	0.00	0.00
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	399.69	79.94	79.94	79.94	79.94	79.94
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	0.00	0.00	0.00	0.00	0.00	0.00
Team sponsorship for inter-company relay	156.93	0.00	0.00	0.00	78.47	78.47
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	3,402.95	680.59	680.59	680.59	680.59	680.59
MCH Link Activities - (not site specific)	910.37	227.59	227.59	227.59	113.80	113.80
MCH Activities - Ndola	448.40	112.10	112.10	112.10	56.05	56.05
MCH Activities - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
MCH Activities - Liv	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL POLICY/ADVOCACY	34,898.43	6,227.21	6,227.21	7,016.24	7,713.89	7,713.89
CAPACITY BUILDING (including Training)						
Curriculum Development or Revisions						
Basic Course Curriculum Revision	2,810.14	565.43	914.76	280.49	498.21	551.26
Community training curriculum review wrkshp (in Siavonga)	3,601.02	724.56	1,172.20	359.43	638.43	706.40
Short Course in IF Counseling (JT & MSJ)	0.00	0.00	0.00	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	190.05	38.24	61.87	18.97	33.69	37.28
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	248.70	50.04	80.96	24.82	44.09	48.79
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	1,929.98	388.33	628.25	192.64	342.17	378.60
TOTAL Curriculum Development/Revisions	8,779.90	1,766.61	2,858.03	876.34	1,556.59	1,722.33

Training Courses						
Orientation wrkshp on use of NVP (63 previously trained HW)	9,235.27	0.00	0.00	1,847.05	3,694.11	3,694.11
SUBTOTAL Orientation Workshop on use of NVP	9,235.27	0.00	0.00	1,847.05	3,694.11	3,694.11
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	27,176.44	3,647.51	3,647.51	7,295.15	6,188.95	6,397.32
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	11,973.35	1,607.01	1,607.01	3,214.08	2,726.72	2,818.52
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	8,577.30	1,151.21	1,151.21	2,302.46	1,953.33	2,019.09
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 2 Supervision - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	5,447.27	731.11	731.11	1,462.25	1,240.52	1,282.29
Psychosocial Counseling Training, Phase 1 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Psychosocial Counseling Training	53,174.36	7,136.85	7,136.85	14,273.93	12,109.51	12,517.22
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHM)	12,474.60	2,806.78	3,867.13	1,035.39	2,270.38	2,494.92
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	3,977.57	897.14	1,237.13	332.67	723.76	786.87
SUBTOTAL Regional Training	16,452.17	3,703.92	5,104.26	1,368.06	2,994.13	3,281.79
Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	11,040.13	2,484.03	3,422.44	916.33	2,009.30	2,208.03
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	10,790.31	2,158.06	3,237.09	1,294.84	1,942.25	2,158.06
SUBTOTAL Training of Trainers	21,830.44	4,642.09	6,659.53	2,211.17	3,951.56	4,366.09
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	19,562.47	4,401.56	6,064.37	1,623.69	3,560.37	3,912.49
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	14,088.90	3,170.00	4,367.56	1,169.38	2,564.18	2,817.78
Subtotal Basic Training for Health Workers	33,651.37	7,571.56	10,431.92	2,793.06	6,124.55	6,730.27
Training of Counselors in HIV Testing in Ndola	3,289.39	0.00	0.00	0.00	3,289.39	0.00
Subtotal Training of Counselors in HIV Testing	3,289.39	0.00	0.00	0.00	3,289.39	0.00
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	0.00	0.00	0.00	0.00	0.00	0.00
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	0.00	0.00	0.00	0.00	0.00	0.00
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	6,479.07	869.60	869.60	1,739.22	1,475.49	1,525.17
IF Counseling Course for counselors in Kabwe (25pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Training of Counselors in Infant Feeding	6,479.07	869.60	869.60	1,739.22	1,475.49	1,525.17
Community Basic Courses, Ndola (25 pp)	16,992.83	3,398.57	5,097.85	2,039.14	3,058.71	3,398.57
Community Basic Courses, Kabwe (25pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Basic Course, Livingstone (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Community Basic Course	16,992.83	3,398.57	5,097.85	2,039.14	3,058.71	3,398.57
Community Motivators Training in Kabwe (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training in Liv (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training in Ndola (25 pp)	10,347.28	2,069.46	3,104.18	1,241.67	1,862.51	2,069.46
Community Motivators Training, Liv	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Community Motivators Training	10,347.28	2,069.46	3,104.18	1,241.67	1,862.51	2,069.46
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	1,964.40	0.00	0.00	392.88	785.76	785.76
SUBTOTAL Orientation Workshop on use of NVP - Community Members	1,964.40	0.00	0.00	392.88	785.76	785.76
National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL TRAINING COURSES	173,416.56	29,392.03	38,404.19	27,906.19	39,345.72	38,368.43

Other		0.00	0.00	0.00	0.00	0.00
Community Support Meetings - Ndola & Liv	1,030.62	206.12	206.12	206.12	206.12	206.12
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinators meeting	1,195.37	239.07	239.07	239.07	239.07	239.07
Site Coordinator activities - Ndola	15,523.20	3,104.64	3,104.64	3,104.64	3,104.64	3,104.64
Site Coordinator activities - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinator activities - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Orientation visit for RA (EM) to Ndola Sites	1,271.50	254.30	254.30	254.30	254.30	254.30
Orientation visit for RA (EM) to Livingstone	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER	19,020.68	3,804.14	3,804.14	3,804.14	3,804.14	3,804.14
SUBTOTAL CAPACITY BUILDING/TRAINING	201,217.14	34,962.78	45,066.36	32,586.67	44,706.44	43,894.90
MONITORING and EVALUATION						
Baseline Surveys in Kabwe, Livingstone and Ndola North	21,387.46	2,870.57	2,870.57	5,741.15	4,870.56	5,034.60
M&E data verification, etc. visits to Kabwe and Ndola	6,823.20	915.79	915.79	1,831.59	1,553.85	1,606.18
Data Collection - Ndola	1,777.51	238.57	238.57	477.15	404.79	418.42
M&E Capacity Building, Data collection & verification visits, meeting, etc.	6,143.83	824.61	824.61	1,649.22	1,399.13	1,446.26
Orientation visit for M&E Officer to Livingstone (5 clinics)	0.00	0.00	0.00	0.00	0.00	0.00
Revision of NDP mon&rep system and implementation in NDP & expansion sites (ongoing)	229.64	30.82	30.82	61.64	52.30	54.06
Revision of registers (part of above row)	328.32	44.07	44.07	88.13	74.77	77.29
Meeting with Site Coordinators on revision of registers, Lusaka	716.78	96.20	96.20	192.41	163.23	168.73
Visit to Ndola site to obtain feedback on use of revised registers	0.00	0.00	0.00	0.00	0.00	0.00
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	0.00	0.00	0.00	0.00	0.00	0.00
Media Evaluation/Endline Survey Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Household Survey in Ndola & Livingstone - General (not site specific)	15,562.31	2,088.74	2,088.74	4,177.47	3,544.00	3,663.36
Household Survey - Ndola	34,507.74	4,631.55	4,631.55	9,263.09	7,858.44	8,123.12
Household Survey - Liv	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL M&E	87,476.77	11,740.92	11,740.92	23,481.84	19,921.07	20,592.02
PROGRAM DESIGN						
District Planning Wrkshops - Ndola and Kabwe	734.90	146.98	146.98	146.98	146.98	146.98
Strategic Planning meeting for district directors, etc.	5,753.00	1,150.60	1,150.60	1,150.60	1,150.60	1,150.60
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC)	0.00	0.00	0.00	0.00	0.00	0.00
Launch of VCT services in Maramba clinic, Liv	0.00	0.00	0.00	0.00	0.00	0.00
Planning Meeting for Kabwe DHMT	0.00	0.00	0.00	0.00	0.00	0.00
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	2,387.02	477.40	477.40	477.40	477.40	477.40
Site Assessments with NFNC	644.84	128.97	128.97	128.97	128.97	128.97
Planning meeting w/ Ndola DHMT	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL PROGRAM DESIGN	9,519.77	1,903.95	1,903.95	1,903.95	1,903.95	1,903.95
LINKAGES ACTIVITY COSTS						
	361,680.95	60,548.63	70,652.21	70,702.48	79,959.12	79,818.52
% of TOTAL	100%	17%	20%	20%	22%	22%

SUMMARY OF LINKAGES COSTS - KABWE DISTRICT

Activity	Total Costs - Kabwe District	Allocation to Indicators - Kabwe District				
		TIBF	EBF	ANC	VCT	HIV-K
IEC/BCC						
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	0.00	0.00	0.00	0.00	0.00	0.00
Development and dissemination of print BCC Materials	28,434.68	5,686.94	5,686.94	5,686.94	5,686.94	5,686.94
BCC Meeting with facilitators	134.16	26.83	26.83	26.83	26.83	26.83
SUBTOTAL IEC/BCC	28,568.84	5,713.77	5,713.77	5,713.77	5,713.77	5,713.77
POLICY/ADVOCACY						
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
WBW Activities - Year 2002	3,343.87	668.77	668.77	668.77	668.77	668.77
WBW Activities - Year 2003	3,638.01	727.60	727.60	727.60	727.60	727.60
WBW Activities - Year 2004	3,035.82	607.16	607.16	607.16	607.16	607.16
World AIDS Day - Year 2002	3,104.88	620.98	620.98	620.98	620.98	620.98
World AIDS Day - Year 2003	4,409.89	881.98	881.98	881.98	881.98	881.98
District Partnership Meeting - Ndola (EM)	0.00	0.00	0.00	0.00	0.00	0.00
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	1,892.67	378.53	378.53	378.53	378.53	378.53
Meeting w/ Counselors in Charge (JT)	402.26	80.45	80.45	80.45	80.45	80.45
Wrkshp to improve VCT uptake in Ndola sites	0.00	0.00	0.00	0.00	0.00	0.00
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	0.00	0.00	0.00	0.00	0.00	0.00
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	175.26	35.05	35.05	35.05	35.05	35.05
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Kabwe	3,205.83	641.17	641.17	641.17	641.17	641.17
Quarterly Counselors Meeting - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	0.00	0.00	0.00	0.00	0.00	0.00
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	399.69	79.94	79.94	79.94	79.94	79.94
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	0.00	0.00	0.00	0.00	0.00	0.00
Team sponsorship for inter-company relay	156.93	0.00	0.00	0.00	78.47	78.47
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	0.00	0.00	0.00	0.00	0.00	0.00
MCH Link Activities - (not site specific)	910.37	227.59	227.59	227.59	113.80	113.80
MCH Activities - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
MCH Activities - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
MCH Activities - Liv	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL POLICY/ADVOCACY	24,675.49	4,949.23	4,949.23	4,949.23	4,913.90	4,913.90
CAPACITY BUILDING (including Training)						
Curriculum Development or Revisions						
Basic Course Curriculum Revision	2,810.14	565.43	914.76	280.49	498.21	551.26
Community training curriculum review wrkshp (in Siavonga)	3,601.02	724.56	1,172.20	359.43	638.43	706.40
Short Course in IF Counseling (JT & MSJ)	0.00	0.00	0.00	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	190.05	38.24	61.87	18.97	33.69	37.28
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	248.70	50.04	80.96	24.82	44.09	48.79
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	1,929.98	388.33	628.25	192.64	342.17	378.60
TOTAL Curriculum Development/Revisions	8,779.90	1,766.61	2,858.03	876.34	1,556.59	1,722.33

Training Courses						
Orientation wrkshp on use of NVP (63 previously trained HW)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	5,986.06	803.42	803.42	1,606.88	1,363.22	1,409.12
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	3,360.14	450.98	450.98	901.98	765.21	790.98
Psychosocial Counseling Training, Ph 2 Supervision - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	5,447.27	731.11	731.11	1,462.25	1,240.52	1,282.29
Psychosocial Counseling Training, Phase 1 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Psychosocial Counseling Training	14,793.48	1,985.52	1,985.52	3,971.11	3,368.95	3,482.38
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHM)	3,321.06	747.24	1,029.53	275.65	604.43	664.21
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	652.57	147.19	202.97	54.58	118.74	129.10
SUBTOTAL Regional Training	3,973.63	894.43	1,232.50	330.23	723.18	793.31
Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	13,655.76	3,072.55	4,233.29	1,133.43	2,485.35	2,731.15
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	8,070.38	1,614.08	2,421.11	968.45	1,452.67	1,614.08
SUBTOTAL Training of Trainers	21,726.14	4,686.62	6,654.40	2,101.87	3,938.02	4,345.23
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	16,429.71	3,696.68	5,093.21	1,363.67	2,990.21	3,285.94
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	3,947.24	888.13	1,223.64	327.62	718.40	789.45
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Basic Training for Health Workers	20,376.95	4,584.81	6,316.85	1,691.29	3,708.60	4,075.39
Training of Counselors in HIV Testing in Ndola	2,455.70	0.00	0.00	0.00	2,455.70	0.00
Subtotal Training of Counselors in HIV Testing	2,455.70	0.00	0.00	0.00	2,455.70	0.00
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	3,182.91	427.20	427.20	854.41	724.85	749.26
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	0.00	0.00	0.00	0.00	0.00	0.00
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	0.00	0.00	0.00	0.00	0.00	0.00
IF Counseling Course for counselors in Kabwe (25pp)	11,661.85	1,565.21	1,565.21	3,130.47	2,655.78	2,745.19
Subtotal Training of Counselors in Infant Feeding	14,844.76	1,992.40	1,992.40	3,984.87	3,380.63	3,494.45
Community Basic Courses, Ndola (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Basic Courses, Kabwe (25pp)	22,707.36	4,541.47	6,812.21	2,724.88	4,087.32	4,541.47
Community Basic Course, Livingstone (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Community Basic Course	22,707.36	4,541.47	6,812.21	2,724.88	4,087.32	4,541.47
Community Motivators Training in Kabwe (25 pp)	13,349.63	2,669.93	4,004.89	1,601.96	2,402.93	2,669.93
Community Motivators Training in Liv (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training in Ndola (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training, Liv	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Community Motivators Training	13,349.63	2,669.93	4,004.89	1,601.96	2,402.93	2,669.93
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP - Community Members	0.00	0.00	0.00	0.00	0.00	0.00
National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL TRAINING COURSES	114,227.65	21,355.18	28,998.77	16,406.21	24,065.33	23,402.15

Other						
Community Support Meetings - Ndola & Liv	0.00	0.00	0.00	0.00	0.00	0.00
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinators meeting	1,195.37	239.07	239.07	239.07	239.07	239.07
Site Coordinator activities - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinator activities - Kabwe	5,898.77	1,179.75	1,179.75	1,179.75	1,179.75	1,179.75
Site Coordinator activities - Liv	0.00	0.00	0.00	0.00	0.00	0.00
Orientation visit for RA (EM) to Ndola Sites	0.00	0.00	0.00	0.00	0.00	0.00
Orientation visit for RA (EM) to Livingstone	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER	7,094.13	1,418.83	1,418.83	1,418.83	1,418.83	1,418.83
SUBTOTAL CAPACITY BUILDING/TRAINING	130,101.68	24,540.62	33,275.63	18,701.38	27,040.75	26,543.30
MONITORING and EVALUATION						
Baseline Surveys in Kabwe, Livingstone and Ndola North	21,387.46	2,870.57	2,870.57	5,741.15	4,870.56	5,034.60
M&E data verification, etc. visits to Kabwe and Ndola	6,823.20	915.79	915.79	1,831.59	1,553.85	1,606.18
Data Collection - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
M&E Capacity Building, Data collection & verification visits, meeting, etc.	6,143.83	824.61	824.61	1,649.22	1,399.13	1,446.26
Orientation visit for M&E Officer to Livingstone (5 clinics)	0.00	0.00	0.00	0.00	0.00	0.00
Revision of NDP mon&rep system and implementation in NDP & expansion sites (ongoing)	229.64	30.82	30.82	61.64	52.30	54.06
Revision of registers (part of above row)	328.32	44.07	44.07	88.13	74.77	77.29
Meeting with Site Coordinators on revision of registers, Lusaka	716.78	96.20	96.20	192.41	163.23	168.73
Visit to Ndola site to obtain feedback on use of revised registers	0.00	0.00	0.00	0.00	0.00	0.00
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	0.00	0.00	0.00	0.00	0.00	0.00
Media Evaluation/Endline Survey Kabwe	23,955.92	3,215.31	3,215.31	6,430.61	5,455.48	5,639.22
Household Survey in Ndola & Livingstone - General (not site specific)	0.00	0.00	0.00	0.00	0.00	0.00
Household Survey - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Household Survey - Liv	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL M&E	59,585.15	7,997.37	7,997.37	15,994.75	13,569.31	14,026.33
PROGRAM DESIGN						
District Planning Wrkshops - Ndola and Kabwe	734.90	146.98	146.98	146.98	146.98	146.98
Strategic Planning meeting for district directors, etc.	5,753.00	1,150.60	1,150.60	1,150.60	1,150.60	1,150.60
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC)	5,700.30	1,140.06	1,140.06	1,140.06	1,140.06	1,140.06
Launch of VCT services in Maramba clinic, Liv	0.00	0.00	0.00	0.00	0.00	0.00
Planning Meeting for Kabwe DHMT	0.00	0.00	0.00	0.00	0.00	0.00
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	2,387.02	477.40	477.40	477.40	477.40	477.40
Site Assessments with NFNC	644.84	128.97	128.97	128.97	128.97	128.97
Planning meeting w/ Ndola DHMT	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL PROGRAM DESIGN	15,220.07	3,044.01	3,044.01	3,044.01	3,044.01	3,044.01
LINKAGES ACTIVITY COSTS	258,151.23	46,245.01	54,980.02	48,403.14	54,281.74	54,241.32
% of TOTAL	100%	18%	21%	19%	21%	21%

SUMMARY OF LINKAGES COSTS - LIVINGSTONE DISTRICT

Activity	Total Costs - Livingstone District	Allocation to Indicators - Livingstone				
		TIBF	EBF	ANC	VCT-T	VCT-K
IEC/BCC						
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	0.00	0.00	0.00	0.00	0.00	0.00
Development and dissemination of print BCC Materials	28,434.68	5,686.94	5,686.94	5,686.94	5,686.94	5,686.94
BCC Meeting with facilitators	134.16	26.83	26.83	26.83	26.83	26.83
SUBTOTAL IEC/BCC	28,568.84	5,713.77	5,713.77	5,713.77	5,713.77	5,713.77
POLICY/ADVOCACY						
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
WBW Activities - Year 2002	3,343.87	668.77	668.77	668.77	668.77	668.77
WBW Activities - Year 2003	3,638.01	727.60	727.60	727.60	727.60	727.60
WBW Activities - Year 2004	3,035.82	607.16	607.16	607.16	607.16	607.16
World AIDS Day - Year 2002	3,104.88	620.98	620.98	620.98	620.98	620.98
World AIDS Day - Year 2003	4,409.89	881.98	881.98	881.98	881.98	881.98
District Partnership Meeting - Ndola (EM)	0.00	0.00	0.00	0.00	0.00	0.00
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	1,892.67	378.53	378.53	378.53	378.53	378.53
Meeting w/ Counselors in Charge (JT)	402.26	80.45	80.45	80.45	80.45	80.45
Wrkshp to improve VCT uptake in Ndola sites	0.00	0.00	0.00	0.00	0.00	0.00
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	2,065.92	413.18	413.18	413.18	413.18	413.18
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	0.00	0.00	0.00	0.00	0.00	0.00
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	175.26	35.05	35.05	35.05	35.05	35.05
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Quarterly Counselors Meeting - Liv	7,851.45	1,570.29	1,570.29	1,570.29	1,570.29	1,570.29
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	929.34	0.00	0.00	0.00	464.67	464.67
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	399.69	79.94	79.94	79.94	79.94	79.94
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	0.00	0.00	0.00	0.00	0.00	0.00
Team sponsorship for inter-company relay	156.93	0.00	0.00	0.00	78.47	78.47
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	0.00	0.00	0.00	0.00	0.00	0.00
MCH Link Activities - (not site specific)	910.37	227.59	227.59	227.59	113.80	113.80
MCH Activities - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
MCH Activities - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
MCH Activities - Liv	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL POLICY/ADVOCACY	32,316.37	6,291.54	6,291.54	6,291.54	6,720.88	6,720.88
CAPACITY BUILDING (including Training)						
Curriculum Development or Revisions						
Basic Course Curriculum Revision	2,810.14	565.43	914.76	280.49	498.21	551.26
Community training curriculum review wrkshp (in Siavonga)	3,601.02	724.56	1,172.20	359.43	638.43	706.40
Short Course in IF Counseling (JT & MSJ)	0.00	0.00	0.00	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	190.05	38.24	61.87	18.97	33.69	37.28
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	248.70	50.04	80.96	24.82	44.09	48.79
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	1,929.98	388.33	628.25	192.64	342.17	378.60
TOTAL Curriculum Development/Revisions	8,779.90	1,766.61	2,858.03	876.34	1,556.59	1,722.33

Training Courses						
Orientation wrkshp on use of NVP (63 previously trained HW)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	15,024.10	2,016.47	2,016.47	4,033.01	3,421.47	3,536.67
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Ph 2 Supervision - Liv	363.15	48.74	48.74	97.48	82.70	85.49
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	9,524.36	1,278.32	1,278.32	2,556.69	2,169.00	2,242.03
Psychosocial Counseling Training, Phase 1 (22pp - Liv)	59,906.60	8,040.42	8,040.42	16,081.11	13,642.66	14,101.99
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	2,026.17	271.94	271.94	543.90	461.42	476.96
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	39,207.41	5,262.26	5,262.26	10,524.70	8,928.79	9,229.41
SUBTOTAL Psychosocial Counseling Training	126,051.80	16,918.16	16,918.16	33,836.89	28,706.05	29,672.54
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHM)	2,040.26	459.06	632.48	169.34	371.33	408.05
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	1,010.64	227.95	314.34	84.53	183.90	199.93
SUBTOTAL Regional Training	3,050.89	687.01	946.82	253.87	555.22	607.98
Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	13,309.43	2,994.62	4,125.92	1,104.68	2,422.32	2,661.89
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	8,680.42	1,736.08	2,604.13	1,041.65	1,562.48	1,736.08
SUBTOTAL Training of Trainers	21,989.86	4,730.71	6,730.05	2,146.33	3,984.79	4,397.97
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	2,697.72	606.99	836.29	223.91	490.99	539.54
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	0.00	0.00	0.00	0.00	0.00	0.00
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	24,660.15	5,548.53	7,644.65	2,046.79	4,488.15	4,932.03
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	24,713.73	5,560.59	7,661.26	2,051.24	4,497.90	4,942.75
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Basic Training for Health Workers	52,071.60	11,716.11	16,142.20	4,321.94	9,477.03	10,414.32
Training of Counselors in HIV Testing in Ndola	2,944.64	0.00	0.00	0.00	2,944.64	0.00
Subtotal Training of Counselors in HIV Testing	2,944.64	0.00	0.00	0.00	2,944.64	0.00
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	0.00	0.00	0.00	0.00	0.00	0.00
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	3,423.98	459.55	459.55	919.12	779.75	806.00
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	0.00	0.00	0.00	0.00	0.00	0.00
IF Counseling Course for counselors in Kabwe (25pp)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal Training of Counselors in Infant Feeding	3,423.98	459.55	459.55	919.12	779.75	806.00
Community Basic Courses, Ndola (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Basic Courses, Kabwe (25pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Basic Course, Livingstone (25 pp)	39,070.16	7,814.03	11,721.05	4,688.42	7,032.63	7,814.03
Subtotal Community Basic Course	39,070.16	7,814.03	11,721.05	4,688.42	7,032.63	7,814.03
Community Motivators Training in Kabwe (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training in Liv (25 pp)	23,229.86	4,645.97	6,968.96	2,787.58	4,181.37	4,645.97
Community Motivators Training in Ndola (25 pp)	0.00	0.00	0.00	0.00	0.00	0.00
Community Motivators Training, Liv	21,471.96	4,294.39	6,441.59	2,576.64	3,864.95	4,294.39
Subtotal Community Motivators Training	44,701.82	8,940.36	13,410.55	5,364.22	8,046.33	8,940.36
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP - Community Members	0.00	0.00	0.00	0.00	0.00	0.00
National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL TRAINING COURSES	293,304.74	51,265.93	66,328.37	51,530.79	61,526.43	62,653.21

Other		0.00	0.00	0.00	0.00	0.00
Community Support Meetings - Ndola & Liv	1,030.62	206.12	206.12	206.12	206.12	206.12
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinators meeting	1,195.37	239.07	239.07	239.07	239.07	239.07
Site Coordinator activities - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinator activities - Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Site Coordinator activities - Liv	15,423.90	3,084.78	3,084.78	3,084.78	3,084.78	3,084.78
Orientation visit for RA (EM) to Ndola Sites	0.00	0.00	0.00	0.00	0.00	0.00
Orientation visit for RA (EM) to Livingstone	1,916.20	383.24	383.24	383.24	383.24	383.24
TOTAL OTHER	19,566.09	3,913.22	3,913.22	3,913.22	3,913.22	3,913.22
SUBTOTAL CAPACITY BUILDING/TRAINING	321,650.72	56,945.76	73,099.62	56,320.36	66,996.24	68,288.75
MONITORING and EVALUATION						
Baseline Surveys in Kabwe, Livingstone and Ndola North	21,387.46	2,870.57	2,870.57	5,741.15	4,870.56	5,034.60
M&E data verification, etc. visits to Kabwe and Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Data Collection - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
M&E Capacity Building, Data collection & verification visits, meeting, etc.	6,143.83	824.61	824.61	1,649.22	1,399.13	1,446.26
Orientation visit for M&E Officer to Livingstone (5 clinics)	1,422.60	190.94	190.94	381.88	323.97	334.88
Revision of NDP mon&rep system and implementation in NDP & expansion sites (ongoing)	229.64	30.82	30.82	61.64	52.30	54.06
Revision of registers (part of above row)	328.32	44.07	44.07	88.13	74.77	77.29
Meeting with Site Coordinators on revision of registers, Lusaka	716.78	96.20	96.20	192.41	163.23	168.73
Visit to Ndola site to obtain feedback on use of revised registers	0.00	0.00	0.00	0.00	0.00	0.00
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	4,148.13	556.75	556.75	1,113.50	944.65	976.47
Media Evaluation/Endline Survey Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Household Survey in Ndola & Livingstone - General (not site specific)	15,562.31	2,088.74	2,088.74	4,177.47	3,544.00	3,663.36
Household Survey - Ndola	0.00	0.00	0.00	0.00	0.00	0.00
Household Survey - Liv	32,848.72	4,408.88	4,408.88	8,817.75	7,480.63	7,732.58
SUBTOTAL M&E	82,787.78	11,111.58	11,111.58	22,223.15	18,853.25	19,488.23
PROGRAM DESIGN						
District Planning Wrkshops - Ndola and Kabwe	0.00	0.00	0.00	0.00	0.00	0.00
Strategic Planning meeting for district directors, etc.	5,753.00	1,150.60	1,150.60	1,150.60	1,150.60	1,150.60
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC)	5,700.30	1,140.06	1,140.06	1,140.06	1,140.06	1,140.06
Launch of VCT services in Maramba clinic, Liv	0.00	0.00	0.00	0.00	0.00	0.00
Planning Meeting for Kabwe DHMT	0.00	0.00	0.00	0.00	0.00	0.00
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	2,387.02	477.40	477.40	477.40	477.40	477.40
Site Assessments with NFNC	644.84	128.97	128.97	128.97	128.97	128.97
Planning meeting w/ Ndola DHMT	0.00	0.00	0.00	0.00	0.00	0.00
SUBTOTAL PROGRAM DESIGN	14,485.16	2,897.03	2,897.03	2,897.03	2,897.03	2,897.03
LINKAGES ACTIVITY COSTS	479,808.88	82,959.67	99,113.53	93,445.85	101,181.16	103,108.66
% of TOTAL	100%	17%	21%	19%	21%	21%

CAPACITY BUILDING/TRAINING COSTS - ALL DISTRICTS

Activity	TOTAL COSTS - All Study Districts	Allocation to Study Districts (in USD)		
		Ndola	Kabwe	Livingstone
CAPACITY BUILDING (including Training)				
Curriculum Development or Revisions				
Basic Course Curriculum Revision	8,430.43	2,810.14	2,810.14	2,810.14
Community training curriculum review wrkshp (in Siavonga)	10,803.07	3,601.02	3,601.02	3,601.02
Short Course in IF Counseling (JT & MSJ)	0.00	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	570.15	190.05	190.05	190.05
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	746.10	248.70	248.70	248.70
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	5,789.94	1,929.98	1,929.98	1,929.98
TOTAL Curriculum Development/Revisions	26,339.69	8,779.90	8,779.90	8,779.90
<i>Curriculum Development/Revision Costs as % of Total Capacity Building Costs</i>	<i>4%</i>	<i>4%</i>	<i>7%</i>	<i>3%</i>
<i>Curriculum Development/Revision Costs as % of Total Activity (Program) Costs</i>	<i>2%</i>	<i>2%</i>	<i>3%</i>	<i>2%</i>
Training Courses				
Orientation wrkshp on use of NVP (63 previously trained HW)	9,235.27	9,235.27	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP	9,235.27	9,235.27	0.00	0.00
<i>Orientation on use of NVP Costs as % of Total Capacity Building Costs</i>	<i>1%</i>	<i>5%</i>	<i>0%</i>	<i>0%</i>
<i>Orientation on use of NVP Costs as % of Total Activity (Program) Costs</i>	<i>1%</i>	<i>3%</i>	<i>0%</i>	<i>0%</i>
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	27,176.44	27,176.44	0.00	0.00
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	0.00	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	11,973.35	11,973.35	0.00	0.00
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	29,587.45	8,577.30	5,986.06	15,024.10
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	3,360.14	0.00	3,360.14	0.00
Psychosocial Counseling Training, Ph 2 Supervision - Liv	363.15	0.00	0.00	363.15
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	20,418.91	5,447.27	5,447.27	9,524.36
Psychosocial Counseling Training, Phase 1 (22pp - Liv)	59,906.60	0.00	0.00	59,906.60
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	2,026.17	0.00	0.00	2,026.17
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	39,207.41	0.00	0.00	39,207.41
SUBTOTAL Psychosocial Counseling Training	194,019.63	53,174.36	14,793.48	126,051.80
<i>Psychosocial Counseling Training Costs as % of Total Capacity Building Costs</i>	<i>30%</i>	<i>26%</i>	<i>11%</i>	<i>39%</i>
<i>Psychosocial Counseling Training Costs as % of Total Activity (Program) Costs</i>	<i>18%</i>	<i>15%</i>	<i>6%</i>	<i>26%</i>
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHMT 9)	17,835.92	12,474.60	3,321.06	2,040.26
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	5,640.78	3,977.57	652.57	1,010.64
SUBTOTAL Regional Training	23,476.70	16,452.17	3,973.63	3,050.89
<i>Regional Training Costs as % of Total Capacity Building Costs</i>	<i>4%</i>	<i>8%</i>	<i>3%</i>	<i>1%</i>
<i>Regional Training Costs as % of Total Activity (Program) Costs</i>	<i>2.1%</i>	<i>5%</i>	<i>2%</i>	<i>1%</i>

Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	38,005.33	11,040.13	13,655.76	13,309.43
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	27,541.11	10,790.31	8,070.38	8,680.42
SUBTOTAL Training of Trainers	65,546.43	21,830.44	21,726.14	21,989.86
Training of Trainer Costs as % of Total Capacity Building Costs	10%	11%	17%	7%
Training of Trainer Costs as % of Total Activity (Program) Costs	6%	6%	8%	5%
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	22,260.19	19,562.47	0.00	2,697.72
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	16,429.71	0.00	16,429.71	0.00
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	28,607.39	0.00	3,947.24	24,660.15
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	24,713.73	0.00	0.00	24,713.73
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	14,088.90	14,088.90	0.00	0.00
Subtotal Basic Training for Health Workers	106,099.92	33,651.37	20,376.95	52,071.60
HW Basic Training Costs as % of Total Capacity Building Costs	16%	17%	16%	16%
HW Basic Training Costs as % of Total Activity (Program) Costs	10%	9%	8%	11%
Training of Counselors in HIV Testing in Ndola	8,689.72	3,289.39	2,455.70	2,944.64
Subtotal Training of Counselors in HIV Testing	8,689.72	3,289.39	2,455.70	2,944.64
Training of Counselors in HIV Testing Costs as % of Total Capacity Building Costs	1%	2%	2%	1%
Training of Counselors in HIV Testing Costs as % of Total Activity (Program) Costs	1%	1%	1%	1%
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	3,182.91	0.00	3,182.91	0.00
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	3,423.98	0.00	0.00	3,423.98
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	6,479.07	6,479.07	0.00	0.00
IF Counseling Course for counselors in Kabwe (25pp)	11,661.85	0.00	11,661.85	0.00
Subtotal Training of Counselors in Infant Feeding	24,747.81	6,479.07	14,844.76	3,423.98
Training of Counselors in IF Costs as % of Total Capacity Building Costs	4%	3%	11%	1%
Training of Counselors in IF Costs as % of Total Activity (Program) Costs	2%	2%	6%	1%
Community Basic Courses, Ndola (25 pp)	16,992.83	16,992.83	0.00	0.00
Community Basic Courses, Kabwe (25pp)	22,707.36	0.00	22,707.36	0.00
Community Basic Course, Livingstone (25 pp)	39,070.16	0.00	0.00	39,070.16
Subtotal Community Basic Course	78,770.35	16,992.83	22,707.36	39,070.16
Community Basic Training Costs as % of Total Capacity Building Costs	12%	8%	17%	12%
Community Basic Training Costs as % of Total Activity (Program) Costs	7%	5%	9%	8%
Community Motivators Training in Kabwe (25 pp)	13,349.63	0.00	13,349.63	0.00
Community Motivators Training in Liv (25 pp)	23,229.86	0.00	0.00	23,229.86
Community Motivators Training in Ndola (25 pp)	10,347.28	10,347.28	0.00	0.00
Community Motivators Training, Liv	21,471.96	0.00	0.00	21,471.96
Subtotal Community Motivators Training	68,398.72	10,347.28	13,349.63	44,701.82
Community Motivators Training Costs as % of Total Capacity Building Costs	10%	5%	10%	14%
Community Motivators Training Costs as % of Total Activity (Program) Costs	6%	3%	5%	9%
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	1,964.40	1,964.40	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP - Community Members	1,964.40	1,964.40	0.00	0.00
Orientation on use of NVP for Community Costs as % of Total Capacity Building Costs	0.3%	1%	0%	0%
Orientation on use of NVP for Community Costs as % of Total Activity (Program) Costs	0.2%	1%	0%	0%

Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	38,005.33	11,040.13	13,655.76	13,309.43
Training of Trainers on BCC in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	27,541.11	10,790.31	8,070.38	8,680.42
SUBTOTAL Training of Trainers	65,546.43	21,830.44	21,726.14	21,989.86
Training of Trainer Costs as % of Total Capacity Building Costs	10%	11%	17%	7%
Training of Trainer Costs as % of Total Activity (Program) Costs	6%	6%	8%	5%
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	22,260.19	19,562.47	0.00	2,697.72
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	16,429.71	0.00	16,429.71	0.00
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	28,607.39	0.00	3,947.24	24,660.15
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	24,713.73	0.00	0.00	24,713.73
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	14,088.90	14,088.90	0.00	0.00
Subtotal Basic Training for Health Workers	106,099.92	33,651.37	20,376.95	52,071.60
HW Basic Training Costs as % of Total Capacity Building Costs	16%	17%	16%	16%
HW Basic Training Costs as % of Total Activity (Program) Costs	10%	9%	8%	11%
Training of Counselors in HIV Testing in Ndola	8,689.72	3,289.39	2,455.70	2,944.64
Subtotal Training of Counselors in HIV Testing	8,689.72	3,289.39	2,455.70	2,944.64
Training of Counselors in HIV Testing Costs as % of Total Capacity Building Costs	1%	2%	2%	1%
Training of Counselors in HIV Testing Costs as % of Total Activity (Program) Costs	1%	1%	1%	1%
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	3,182.91	0.00	3,182.91	0.00
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	3,423.98	0.00	0.00	3,423.98
IF Training for Counselors in Kitwe (23p/Kitwe 14, Ndola 9)	6,479.07	6,479.07	0.00	0.00
IF Counseling Course for counselors in Kabwe (25pp)	11,661.85	0.00	11,661.85	0.00
Subtotal Training of Counselors in Infant Feeding	24,747.81	6,479.07	14,844.76	3,423.98
Training of Counselors in IF Costs as % of Total Capacity Building Costs	4%	3%	11%	1%
Training of Counselors in IF Costs as % of Total Activity (Program) Costs	2%	2%	6%	1%
Community Basic Courses, Ndola (25 pp)	16,992.83	16,992.83	0.00	0.00
Community Basic Courses, Kabwe (25pp)	22,707.36	0.00	22,707.36	0.00
Community Basic Course, Livingstone (25 pp)	39,070.16	0.00	0.00	39,070.16
Subtotal Community Basic Course	78,770.35	16,992.83	22,707.36	39,070.16
Community Basic Training Costs as % of Total Capacity Building Costs	12%	8%	17%	12%
Community Basic Training Costs as % of Total Activity (Program) Costs	7%	5%	9%	8%
Community Motivators Training in Kabwe (25 pp)	13,349.63	0.00	13,349.63	0.00
Community Motivators Training in Liv (25 pp)	23,229.86	0.00	0.00	23,229.86
Community Motivators Training in Ndola (25 pp)	10,347.28	10,347.28	0.00	0.00
Community Motivators Training, Liv	21,471.96	0.00	0.00	21,471.96
Subtotal Community Motivators Training	68,398.72	10,347.28	13,349.63	44,701.82
Community Motivators Training Costs as % of Total Capacity Building Costs	10%	5%	10%	14%
Community Motivators Training Costs as % of Total Activity (Program) Costs	6%	3%	5%	9%
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	1,964.40	1,964.40	0.00	0.00
SUBTOTAL Orientation Workshop on use of NVP - Community Members	1,964.40	1,964.40	0.00	0.00
Orientation on use of NVP for Community Costs as % of Total Capacity Building Costs	0.3%	1%	0%	0%
Orientation on use of NVP for Community Costs as % of Total Activity (Program) Costs	0.2%	1%	0%	0%

National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	0.00	0.00	0.00	0.00
TOTAL TRAINING COURSES	580,948.95	173,416.56	114,227.65	293,304.74
TOTAL TRAINING COURSES COSTS as % of Total Capacity Building Costs	89%	86%	88%	91%
TOTAL TRAINING COURSES COSTS as % of Total Activity (Program) Costs	53%	48%	44%	61%
Other				
Community Support Meetings - Ndola & Liv	2,061.24	1,030.62	0.00	1,030.62
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	0.00	0.00	0.00	0.00
Site Coordinators meeting	3,586.10	1,195.37	1,195.37	1,195.37
Site Coordinator activities - Ndola	15,523.20	15,523.20	0.00	0.00
Site Coordinator activities - Kabwe	5,898.77	0.00	5,898.77	0.00
Site Coordinator activities - Liv	15,423.90	0.00	0.00	15,423.90
Orientation visit for RA (EM) to Ndola Sites	1,271.50	1,271.50	0.00	0.00
Orientation visit for RA (EM) to Livingstone	1,916.20	0.00	0.00	1,916.20
TOTAL OTHER	45,680.90	19,020.68	7,094.13	19,566.09
TOTAL OTHER COSTS as % of Total Capacity Building Costs	7%	9%	5%	6%
TOTAL OTHER COSTS as % of Total Activity (Program) Costs	4%	5%	3%	4%
SUBTOTAL CAPACITY BUILDING/TRAINING	652,969.54	201,217.14	130,101.68	321,650.72
TOTAL CAPACITY BUILDING/TRAINING COSTS as % of Total Activity (Program) Costs	59%	56%	50%	67%
GRAND TOTAL LINKAGES ACTIVITY COSTS	1,099,641.06	361,680.95	258,151.23	479,808.88

LINKAGES' COSTS OF ACTIVITIES, ALLOCATED BY INDICATOR

	NDOLA			KABWE			LIVINGSTONE		
Pop Covered at Jun 02	170,000			43,647			59,943		
Pop Covered at Aug 04	347,684			80,973			115,274		
Avg No of beneficiaries	258,842			62,310			87,609		
Indicator	% Chg in Indicator	Cost	Per Beneficiary	% Chg in Indicator	Cost	Per Beneficiary	% Chg in Indicator	Cost	Per Beneficiary
TIBF	-17%	\$ 60,549	\$ 0.23	10.5%	\$ 46,245	\$ 0.74	-1.9%	\$ 82,960	\$ 0.95
EBF	5%	\$ 70,652	\$ 0.27	13%	\$ 54,980	\$ 0.88	17%	\$ 99,114	\$ 1.13
ANC	0.4%	\$ 70,702	\$ 0.27	3%	\$ 48,403	\$ 0.78	3%	\$ 93,446	\$ 1.07
VCT - Test	33.3%	\$ 79,959	\$ 0.31	22.5%	\$ 54,282	\$ 0.87	41%	\$ 101,181	\$ 1.15
VCT - Knowledge	14.5%	\$ 79,819	\$ 0.31	21.5%	\$ 54,241	\$ 0.87	31%	\$ 103,109	\$ 1.18
TOTAL		\$ 361,681	\$ 1.40		\$ 258,151	\$ 4.14		\$ 479,809	\$ 5.48

COST EFFECTIVENESS RATIOS (LINKAGES COSTS) by DISTRICT

NDOLA DISTRICT						
Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 60,549	-17%	13,003	NM	NM
EBF	3.74%	\$ 70,652	5%	13,003	650	\$ 108.67
VCT - Test	3.74%	\$ 79,959	33.3%	13,003	4,330	\$ 18.47
VCT - Knowledge	3.74%	\$ 79,819	14.5%	13,003	1,885	\$ 42.33

KABWE DISTRICT						
Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 46,245	10.5%	3,028	318	\$ 145.43
EBF	3.74%	\$ 54,980	13%	3,028	394	\$ 139.65
VCT - Test	3.74%	\$ 54,282	22.5%	3,028	681	\$ 79.66
VCT - Knowledge	3.74%	\$ 54,241	21.5%	3,028	651	\$ 83.31

LIVINGSTONE DISTRICT						
Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 82,960	-1.9%	4,311	NM	NM
EBF	3.74%	\$ 99,114	17%	4,311	733	\$ 135.23
VCT - Test	3.74%	\$ 101,181	41%	4,311	1,768	\$ 57.24
VCT - Knowledge	3.74%	\$ 103,109	31%	4,311	1,336	\$ 77.15

Replication Costs of LINKAGES/Zambia Activities (LINKAGES costs only)

LINKAGES Activities June 2002 - Aug 2004 (in USD)	Activity Definition	Replication Costs by District		
		Ndola	Kabwe	Livingstone
IEC/BCC				
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	Implm	0.00	0.00	0.00
Development of print BCC Materials	Start-up	0.00	0.00	0.00
BCC Meeting with facilitators	Implm	134.16	134.16	134.16
SUBTOTAL IEC/BCC		134.16	134.16	134.16
POLICY/ADVOCACY				
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	Implm	3,945.16	0.00	0.00
WBW Activities - Year 2002	Implm	3,343.87	3,343.87	3,343.87
WBW Activities - Year 2003	Implm	3,638.01	3,638.01	3,638.01
WBW Activities - Year 2004	Implm	3,035.82	3,035.82	3,035.82
World AIDS Day - Dec 2002	Implm	3,104.88	3,104.88	3,104.88
World AIDS Day - Dec 2003	Implm	4,409.89	4,409.89	4,409.89
District Partnership Meeting - Ndola (EM)	Implm	56.21	0.00	0.00
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	Implm	1,892.67	1,892.67	1,892.67
Meeting w/ Counselors in Charge (JT)	Implm	402.26	402.26	402.26
Wrkshp to improve VCT uptake in Ndola sites	Implm	0.00	0.00	0.00
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	Implm	0.00	0.00	2,065.92
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	Implm	0.00	0.00	0.00
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	Implm	175.26	175.26	175.26
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)		0.00	0.00	0.00
Quarterly Counselors Meeting - Ndola	Implm	5,576.05	0.00	0.00
Quarterly Counselors Meeting - Kabwe	Implm	0.00	3,205.83	0.00
Quarterly Counselors Meeting - Liv	Implm	0.00	0.00	7,851.45
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	Start-up	0.00	0.00	0.00
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	Implm	399.69	399.69	399.69
Meeting w/ Copperbelt & Central Province Health Directors (JT)	Implm	0.00	0.00	0.00
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	Implm	0.00	0.00	0.00
Team sponsorship for inter-company relay	Implm	156.93	156.93	156.93
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	Implm	3,402.95	0.00	0.00
MCH Link Activities - (not site specific)	Implm	910.37	910.37	910.37
MCH Activities - Ndola	Implm	448.40	0.00	0.00
MCH Activities - Kabwe	Implm	0.00	0.00	0.00
MCH Activities - Liv	Implm	0.00	0.00	0.00
SUBTOTAL POLICY/ADVOCACY		34,898.43	24,675.49	31,387.03

CAPACITY BUILDING (including Training)				
Curriculum Development or Revisions				
Basic Course Curriculum Revision	Start-up	0.00	0.00	0.00
Community training curriculum review wrkshp (in Siavonga)	Start-up	0.00	0.00	0.00
Short Course in IF Counseling (JT & MSJ)	Start-up	0.00	0.00	0.00
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	Start-up	0.00	0.00	0.00
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	Start-up	0.00	0.00	0.00
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	Start-up	0.00	0.00	0.00
Training Courses				
Capacity Building for use of NVP (63 previously trained HW)	Implm	9,235.27	0.00	0.00
Psychosocial Counseling Training, Phase 1 (20 pp - Ndola)	Implm	27,176.44	0.00	0.00
Psychosocial Counseling Training, Practicum, (19 pp - Ndola)	Implm	0.00	0.00	0.00
Psychosocial Counseling Training, Back to Class (19 pp - Ndola)	Implm	11,973.35	0.00	0.00
Community Basic Courses, Ndola (25 pp)	Implm	16,992.83	0.00	0.00
Community Basic Courses, Kabwe (25pp)	Implm	0.00	22,707.36	0.00
Regional Training to integrate PMTCT into HCS (19pp/3 Kabwe, Liv 2, Kapiri 2, Ndola DHM)	Implm	12,474.60	3,321.06	2,040.26
Training of Trainers (15pp/ 6 Liv, 3 NN, Kabwe 5, Ndola DHMT 1)	Implm	11,040.13	13,655.76	13,309.43
Orientation wrkshp on use of NVP (NDP & NN - 126 community members)	Implm	1,964.40	0.00	0.00
Community Basic Course, Livingstone (25 pp)	Implm	0.00	0.00	39,070.16
Psychosocial Counseling Training, Ph 1 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	Implm	8,577.30	5,986.06	15,024.10
Psychosocial Counseling Training, Ph 2 Supervision - Kabwe	Implm	0.00	3,360.14	0.00
Psychosocial Counseling Training, Ph 2 Supervision - Liv	Implm	0.00	0.00	363.15
Community Support Meetings - Ndola & Liv	Implm	1,030.62	0.00	1,030.62
Basic Training for HW in Ndola (4/Liv, 20/Ndola, 2/Kenya)	Implm	19,562.47	0.00	2,697.72
Psychosocial Counseling Training, Ph 3 in Liv (10 Liv, 5 Kabwe, 5 Ndola)	Implm	5,447.27	5,447.27	9,524.36
Basic Training in Kabwe (Kabwe 18, K-Mposhi 6)	Implm	0.00	16,429.71	0.00
Basic Training in Livingstone (20 Liv, 3 Kabwe, 1 Lusaka)	Implm	0.00	3,947.24	24,660.15
Training of Counselors in HIV testing (3 Kabwe & Liv) by VCS, funded by JICA	Implm	0.00	0.00	0.00
Training of Counselors in HIV testing (6 Kabwe, Ndola & Liv) by VCS, funded by JICA	Implm	0.00	0.00	0.00
Counselor Training in HIV Testing in Ndola	Implm	3,289.39	2,455.70	2,944.64
Regional Training on PMTCT (22 p/7 ZM, Ndola2, Lus1, Liv1, Kabwe1, Mtn1)	Implm	3,977.57	652.57	1,010.64
Community Motivators Training in Kabwe (25 pp)	Implm	0.00	13,349.63	0.00
Community Motivators Training in Liv (25 pp)	Implm	0.00	0.00	23,229.86
Community Motivators Training in Ndola (25 pp)	Implm	10,347.28	0.00	0.00
BCC ToT in Liv (25pp/ 5 Liv, 5 Kabwe, 6 Ndola)	Implm	10,790.31	8,070.38	8,680.42
IF Training for Counselors in Kabwe (20p/16 Kabwe, 4 Kapiri-Mposhi)	Implm	0.00	3,182.91	0.00
IF Training for Counselors in Liv (17p/12 Liv, 5 Mtendere)	Implm	0.00	0.00	3,423.98
IF Training for already trained counselors in Kitwe (23p/Kitwe 14, Ndola 9)	Implm	6,479.07	0.00	0.00
Basic Training for HW in Liv (27pp/ Liv 15 pp and Choma 12 pp)	Implm	0.00	0.00	24,713.73
Basic Training for HW in Ndola (27pp/Kitwe 15 pp and Ndola 12 pp)	Implm	14,088.90	0.00	0.00
IF Counseling Course for counselors in Kabwe (25pp)	Implm	0.00	11,661.85	0.00

Psychosocial Counseling Training, Phase 1 (22pp - Liv)	Implm	0.00	0.00	59,906.60
Psychosocial Counseling Training, Phase 2 (22pp - Liv)	Implm	0.00	0.00	2,026.17
Psychosocial Counseling Training, Phase 3 (22pp - Liv)	Implm	0.00	0.00	39,207.41
Orientation course for PMTCT trainers on new curriculum (JHIPEGO/CBOH), Nd 4, Kabwe	Implm	0.00	0.00	0.00
National PMTCT Master Trainer Course (CBOH/JHIPEGO), Nd 5, Kapiri 2, Liv 1	Implm	0.00	0.00	0.00
Community Motivators Training, Liv	Implm	0.00	0.00	21,471.96
Other		0.00	0.00	0.00
Orientation visit to Ndola, Livingstone & Kabwe Site Coordinators	Start-up	0.00	0.00	0.00
Site Coordinators meeting	Implm	1,195.37	1,195.37	1,195.37
Site Coordinator activities - Ndola	Implm	15,523.20	0.00	0.00
Site Coordinator activities - Kabwe	Implm	0.00	5,898.77	0.00
Site Coordinator activities - Liv	Implm	0.00	0.00	15,423.90
Orientation visit for RA (EM) to Ndola Sites	Start-up	0.00	0.00	0.00
Orientation visit for RA (EM) to Livingstone	Start-up	0.00	0.00	0.00
SUBTOTAL TRAINING		191,165.75	121,321.78	310,954.63
MONITORING and EVALUATION				
Baseline Surveys in Kabwe, Livingstone and Ndola North	M&E	0.00	0.00	0.00
M&E data verification, etc. visits to Kabwe and Ndola (by Brian Mulligan)	M&E	0.00	0.00	0.00
Data Collection - Ndola	M&E	0.00	0.00	0.00
M&E Capacity Building, Data collection & verification visits, meeting, etc.	M&E	0.00	0.00	0.00
Orientation visit for M&E Officer to Livingstone (5 clinics)	M&E	0.00	0.00	0.00
Revision of NDP mon&rep system and implementation in NDP & expansion sites	M&E	0.00	0.00	0.00
Revision of registers (part of above row)	M&E	0.00	0.00	0.00
Meeting with Site Coordinators on revision of registers, Lusaka	M&E	0.00	0.00	0.00
Visit to Ndola site to obtain feedback on use of revised registers	M&E	0.00	0.00	0.00
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	M&E	0.00	0.00	0.00
Media Evaluation/Endline Survey Kabwe	M&E	0.00	0.00	0.00
Household Survey - General (not site specific)	M&E	0.00	0.00	0.00
Household Survey - Ndola	M&E	0.00	0.00	0.00
Household Survey - Liv	M&E	0.00	0.00	0.00
SUBTOTAL M&E		0.00	0.00	0.00

PROGRAM DESIGN				
District Planning Wrkshops - Ndola (JT) and Kabwe (EM)	Implm	734.90	734.90	0.00
Strategic Planning meeting for district directors, etc.	Implm	5,753.00	5,753.00	5,753.00
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC), (EM, JT)	Start-up	0.00	0.00	0.00
Launch of VCT services in Maramba clinic, Liv	Start-up	0.00	0.00	0.00
Planning Meeting for Kabwe DHMT (M&E Officer)	Implm	0.00	0.00	0.00
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	Implm	2,387.02	2,387.02	2,387.02
Site Assessments by NFNC (w/ Maureen)	Start-up	0.00	0.00	0.00
Planning meeting w/ Ndola DHMT (EM)	Implm	0.00	0.00	0.00
SUBTOTAL PROGRAM DESIGN		8,874.92	8,874.92	8,140.02
LINKAGES ACTIVITY COSTS		235,073.26	155,006.37	350,615.84

Replication Costs of LINKAGES/Zambia Activities (LINKAGES costs only) by Indicator

LINKAGES Activities June 2002 - Aug 2004 (in USD)	Activity Definition	Allocation to Indicators - Ndola					Allocation to Indicators - Kabwe					Allocation to Indicators		
		TIBF	EBF	ANC	VCT-T	VCT-K	TIBF	EBF	ANC	VCT-T	VCT-K	TIBF	EBF	ANC
IEC/BCC														
Consensus Building on BCC Strategies (4 monthly meetings by LI in FY03)	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
Development of print BCC Materials	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
BCC Meeting with facilitators	Implm	27	27	27	27	27	27	27	27	27	27	27	27	27
SUBTOTAL IEC/BCC		27	27	27	27	27	27	27	27	27	27	27	27	27
POLICY/ADVOCACY														
Focus Group Discussions (factors of low VCT/PMTCT services in Ndola)	Implm	0	0	789	1,578	1,578	0	0	0	0	0	0	0	0
WBW Activities - Year 2002	Implm	669	669	669	669	669	669	669	669	669	669	669	669	669
WBW Activities - Year 2003	Implm	728	728	728	728	728	728	728	728	728	728	728	728	728
WBW Activities - Year 2004	Implm	607	607	607	607	607	607	607	607	607	607	607	607	607
World AIDS Day - Dec 2002	Implm	621	621	621	621	621	621	621	621	621	621	621	621	621
World AIDS Day - Dec 2003	Implm	882	882	882	882	882	882	882	882	882	882	882	882	882
District Partnership Meeting - Ndola (EM)	Implm	11	11	11	11	11	0	0	0	0	0	0	0	0
Stakeholders' Consultative Meeting in Livingstone (27pp/17 organizations)	Implm	379	379	379	379	379	379	379	379	379	379	379	379	379
Meeting w/ Counselors in Charge (JT)	Implm	80	80	80	80	80	80	80	80	80	80	80	80	80
Wrkshp to improve VCT uptake in Ndola sites	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
Wrkshp to improve VCT uptake in Livingstone sites (25 pp)	Implm	0	0	0	0	0	0	0	0	0	0	413	413	413
1st PMTCT Consultation Meeting (by USAID/Zambia) - 9pp	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
2nd Consultation Meeting (by USAID/Zambia) - 30 pp	Implm	35	35	35	35	35	35	35	35	35	35	35	35	35
Quarterly Counselors Meeting (Kabwe, Liv, Ndola)		0	0	0	0	0	0	0	0	0	0	0	0	0
Quarterly Counselors Meeting - Ndola	Implm	1,115	1,115	1,115	1,115	1,115	0	0	0	0	0	0	0	0
Quarterly Counselors Meeting - Kabwe	Implm	0	0	0	0	0	641	641	641	641	641	0	0	0
Quarterly Counselors Meeting - Liv	Implm	0	0	0	0	0	0	0	0	0	0	1,570	1,570	1,570
Opening of 2 Counseling Rooms in Liv (by ZMB First Lady)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Orientation meeting for Prov Health Officers (by UNICEF&CBOH, JT&EM)	Implm	80	80	80	80	80	80	80	80	80	80	80	80	80
Meeting w/ Copperbelt & Central Province Health Directors (JT)	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
Ndola DHMT Meeting with counselors from all HC (RA & Site Coord)	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
Team sponsorship for inter-company relay	Implm	0	0	0	78	78	0	0	0	78	78	0	0	0
International Trade Fair in Ndola (materials for PMTCT corner of Ndola DHMT)	Implm	681	681	681	681	681	0	0	0	0	0	0	0	0
MCH Link Activities - (not site specific)	Implm	228	228	228	114	114	228	228	228	114	114	228	228	228
MCH Activities - Ndola	Implm	112	112	112	56	56	0	0	0	0	0	0	0	0
MCH Activities - Kabwe	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
MCH Activities - Liv	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL POLICY/ADVOCACY		6,227	6,227	7,016	7,714	7,714	4,949	4,949	4,949	4,914	4,914	6,292	6,292	6,292
CAPACITY BUILDING (including Training)														
Curriculum Development or Revisions														
Basic Course Curriculum Revision	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Community training curriculum review wrkshp (in Siavonga)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Short Course in IF Counseling (JT & MSJ)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Community motivators' curriculum revision (LI staff, Site Coord, Facilitators)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Integrated PMTCT training curriculum (JHIPEGO/CBOH), LI TA (ongoing)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
CBOH- Standardization of Training Tools Wrkshp, Kafue Gorge (funded by LI)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0

MONITORING and EVALUATION														
Baseline Surveys in Kabwe, Livingstone and Ndola North	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
M&E data verification, etc. visits to Kabwe and Ndola (by Brian Mulligan)	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Data Collection - Ndola	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
M&E Capacity Building, Data collection & verification visits, meeting, etc.	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Orientation visit for M&E Officer to Livingstone (5 clinics)	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Revision of NDP mon&rep system and implementation in NDP & expansion sites (M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Revision of registers (during Melissa's visit) (part of above row)	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Meeting with Site Coordinators on revision of registers, Lusaka	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Visit to Ndola site to obtain feedback on use of revised registers	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Dissemination of Liv Baseline Survey results (68 pp/20 orgz)	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Media Evaluation/Endline Survey Kabwe	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Household Survey - General (not site specific)	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Household Survey - Ndola	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
Household Survey - Liv	M&E	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL M&E		0	0	0	0	0	0	0	0	0	0	0	0	0
PROGRAM DESIGN														
District Planning Wrkshops - Ndola (JT) and Kabwe (EM)	Implm	147	147	147	147	147	147	147	147	147	147	0	0	0
Strategic Planning meeting for district directors, etc.	Implm	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151
Clinic Assessments in Kabwe (10 HC) & Liv (6 HC), (EM, JT)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Launch of VCT services in Maramba clinic, Liv	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning Meeting for Kabwe DHMT (M&E Officer)	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning meeting w/ Liv, Ndola, Kabwe, Kitwe, Kapiri & Choma DHMTs	Implm	477	477	477	477	477	477	477	477	477	477	477	477	477
Site Assessments by NFNC (w/ Maureen)	Start-up	0	0	0	0	0	0	0	0	0	0	0	0	0
Planning meeting w/ Ndola DHMT (EM)	Implm	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL PROGRAM DESIGN		1,775	1,775	1,775	1,775	1,775	1,775	1,775	1,775	1,775	1,775	1,628	1,628	1,628
LINKAGES ACTIVITY COSTS		40,971	49,983	40,274	52,411	51,434	29,525	37,169	24,576	32,200	31,537	62,742	77,805	63,007

LINKAGES' REPLICATION COSTS, ALLOCATED BY INDICATOR
(implementation costs only)

	NDOLA			KABWE			LIVINGSTONE		
Pop Covered at Jun 02	170,000			43,647			59,943		
Pop Covered at Aug 04	347,684			80,973			115,274		
Avg No of beneficiaries	258,842			62,310			87,609		
Indicator	% Chg in Indicator	Cost	Per Beneficiary	% Chg in Indicator	Cost	Per Beneficiary	% Chg in Indicator	Cost	Per Beneficiary
TIBF	-17%	\$ 40,971	\$ 0.16	10.5%	\$ 29,525	\$ 0.47	-1.9%	\$ 62,742	\$ 0.72
EBF	5%	\$ 49,983	\$ 0.19	13%	\$ 37,169	\$ 0.60	17%	\$ 77,805	\$ 0.89
ANC	0.4%	\$ 40,274	\$ 0.16	3%	\$ 24,576	\$ 0.39	3%	\$ 63,007	\$ 0.72
VCT - Test	33.3%	\$ 52,411	\$ 0.20	22.5%	\$ 32,200	\$ 0.52	41%	\$ 72,967	\$ 0.83
VCT - Knowledge	14.5%	\$ 51,434	\$ 0.20	21.5%	\$ 31,537	\$ 0.51	31%	\$ 74,094	\$ 0.85
TOTAL		\$ 235,073	\$ 0.91		\$ 155,006	\$ 2.49		\$ 350,616	\$ 4.00

COST EFFECTIVENESS OF REPLICATION (LINKAGES COSTS) by DISTRICT
(implementation costs only)

NDOLA DISTRICT

Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 40,971	-17%	13,003	NM	NM
EBF	3.74%	\$ 49,983	5%	13,003	650	\$ 76.88
VCT - Test	3.74%	\$ 52,411	33.3%	13,003	4,330	\$ 12.10
VCT - Knowledge	3.74%	\$ 51,434	14.5%	13,003	1,885	\$ 27.28

KABWE DISTRICT

Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 29,525	10.5%	3,028	318	\$ 92.85
EBF	3.74%	\$ 37,169	13%	3,028	394	\$ 94.41
VCT - Test	3.74%	\$ 32,200	22.5%	3,028	681	\$ 47.26
VCT - Knowledge	3.74%	\$ 31,537	21.5%	3,028	651	\$ 48.44

LIVINGSTONE DISTRICT

Indicator	Age Group as % of Pop	Total Cost by Indicator	% Chg in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF	3.74%	\$ 62,742	-1.9%	4,311	NM	NM
EBF	3.74%	\$ 77,805	17%	4,311	733	\$ 106.16
VCT - Test	3.74%	\$ 72,967	41%	4,311	1,768	\$ 41.28
VCT - Knowledge	3.74%	\$ 74,094	31%	4,311	1,336	\$ 55.44

NDOLA DEMONSTRATION PROJECT

Adjustment of LINKAGES COSTS - Replication Costs ONLY

all costs in US Dollars, original data taken from NDP CEA Report by Abt Associates, Inc.

Consumer Price Index - October 2000	174
Consumer Price Index - July 2003	183.9
Adjustment Coefficient	1.0569

PARTNER/Activity	TIBF	EBF	ANC	VCT	HIV-K	Total
LINKAGES						
Orientation/Consensus Building Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Curriculum Development	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HW Basic Course	\$ 13,463	\$ 18,564	\$ 4,992	\$ 10,861	\$ 11,808	\$ 59,689
HW Counseling Course	\$ 21,790	\$ 21,790	\$ 43,579	\$ 36,971	\$ 38,216	\$ 162,346
HW Supervision/On-the-job Training	\$ 2,776	\$ 2,776	\$ 5,553	\$ 4,711	\$ 4,869	\$ 20,685
HW TOT - Basic Course	\$ 4,226	\$ 5,827	\$ 1,567	\$ 3,409	\$ 3,706	\$ 18,735
Clinic Structure Upgrades	\$ -	\$ -	\$ 2,834	\$ 2,405	\$ 2,486	\$ 7,725
Community Basic Course	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Community Counseling Course	\$ 2,597	\$ 2,597	\$ 5,194	\$ 4,406	\$ 4,555	\$ 19,349
BFHI Activities	\$ 1,373	\$ 4,120	\$ -	\$ 1,255	\$ 1,297	\$ 8,045
M&E Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL - ORIGINAL DATA	\$ 46,225	\$ 55,675	\$ 63,720	\$ 64,018	\$ 66,938	\$ 296,575
Adjusted Costs	\$ 48,855	\$ 58,842	\$ 67,345	\$ 67,660	\$ 70,746	\$ 313,449

COST OF ACTIVITIES, ALLOCATED BY INDICATOR

	Tot Pop	WRA
Pop covered at April '01	126,358	31,773
Pop covered at April '00	124,942	31,417
Avg No. of Beneficiaries	125,650	31,595

INDICATOR	% Chg in Indicator	LINKAGES Per	
		Cost	Beneficiary
TIBF	30%	48,855	\$0.39
EBF	18%	58,842	\$0.47
ANC	15%	67,345	\$0.54
VCT-T	10%	67,660	\$0.54
VCT-K	18%	70,746	\$0.56
TOTAL	18%	313,449	\$2.49

246,104 \$1.96

COST EFFECTIVENESS RATIOS (LINKAGES Costs ONLY)

INDICATOR	Age Group as Percent of Pop	Total Cost by Indicator	Percent Change in Indicator	Target Population	Number of New Acceptors	Cost per New Acceptor
TIBF (preg women/women w/infants 0-6 months)	2.86%	48,855	30%	3,614	1,092	\$ 44.76
EBF(preg women/women w/infants 0-6 months)	2.86%	58,842	18%	3,614	640	\$ 91.97
ANC (preg women)	9.10%	67,345	15%	2,891	422	\$ 159.53
VCT-T (preg women/women w/infants 0-6 months)	2.86%	67,660	10%	3,614	351	\$ 192.98
VCT-K (preg women/women w/infants 0-6 months)	2.86%	70,746	18%	3,614	654	\$ 108.14

Assumptions:

- * Ave. cost HIV test kit '00-'01: \$3.14 (PHRplus)
- * 15% of activity costs aimed at HIV testing indicator targeted men
- * 12% of activity costs aimed at HIV/AIDS prevention/PMTCT indicator targeted men
- * ZIPH figures based on AED/DC estimates
- * Horizons-paid salaries based on estimates by interviewees (including one paid by Horizons)
- * Cost of international participants at HW/TOT trainings have been subtracted from total training costs

Missing data/outstanding questions:

- * Costs of Regional & DC-based HORIZONS staff time for M & E activities
- * Verification of local salaries paid by HORIZONS regional office (Esther & HMIS Officer)
- * Verification of ZIHP-paid activities (Mother's Support Group Training and community supervisions costs missing)
- * Should we include post-test counseling (not included in above, but can be added)? Unclear whether contributes to indicators.