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## **TRIP REPORT**

**Zambia Assessment Visit:  
Summary of Findings, Recommendations and Next Steps  
September 14-27, 1997**

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## ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival Project
BF	breastfeeding
BFHI	Baby Friendly Hospital Initiative
CA	cooperating agency
CBOH	Central Board of Health
CF	complementary feeding
CHP	community health practitioner
CHW	community health worker
CMAZ	Churches Medical Association of Zambia
DALY	disability adjusted life years
DHS	demographic and health surveys
FPAZ	Family Planning Association of Zambia
FLMZ	Family Life Movement of Zambia
FP	family planning
GRZ	Government of the Republic of Zambia
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
MOH	Ministry of Health
HMIS	health management information system
IBFAN	International Baby Food Action Network
IEC	information, education, and communication
JSI	John Snow International
LAM	lactational amenorrhea method
LME	Lactation Management Education
LLLI	La Leche League International
MOU	memorandum of understanding
MSL	Medical Stores Limited
NFNC	National Food and Nutrition Commission
PCI	Project Concern International
PCS	Population Communication Services
PHP	primary health practitioner
PPFZ	Planned Parenthood Federation of Zambia
PSI	Population Services International
RH	reproductive health
STD	sexually transmitted disease
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UTH	University Teaching Hospital

## **I. INTRODUCTION**

A LINKAGES team composed of Margaret Parlato, AED Vice President for Population and Nutrition Programs and LINKAGES' behavior change advisor; Nomajoni Ntombela, maternal child health coordinator for LINKAGES (Wellstart International); and Barry Whittle, private sector marketing specialist (PSI) conducted an assessment/planning visit to Zambia during the period September 14–27, 1997. The team worked in close collaboration with the National Food and Nutrition Commission (NFNC) and UNICEF to plan and execute the situation review and develop recommendations. An informal grouping of national breastfeeding experts, including associates from Wellstart International and the London Institute of Child Health, provided valuable insights to the team.

Specifically, the LINKAGES team:

- Conducted an assessment of the BF/LAM situation and identified priorities for USAID support;
- Explored private sector opportunities to market iron/folate tablets;
- Reviewed draft technical guidelines and IEC materials (see Annex D);
- Provided briefings on the issue of BF/HIV/AIDS;
- Participated in development of a Memorandum of Understanding (MOU) between UNICEF and USAID regarding support to the nutrition sector (see Annex E).

## **II. Breastfeeding Practices and Policies**

In Zambia, over 95 percent of infants are breastfed for their first year of life with an average duration of close to 19.7 months. In 1996, the prevalence of exclusive breastfeeding among children younger than six months was 15 percent (26 percent of children 0–3 months of age and four percent of 4–6 month olds) (DHS 1996). The use of water, other liquids, and foods is routine and considerably reduces both the nutritional and fertility control benefits of breastfeeding.

## A. Exclusive Breastfeeding

The use of modern contraception among married women has increased from 8.9 percent in 1992 to 14.4 percent in 1996. The 1996 survey introduces some new “traditional methods” including breastfeeding. Of all married women 0.7 percent claim to be breastfeeding as a contraceptive measure. (Without the questionnaire, it is difficult to know whether these women are practicing LAM knowingly or are just breastfeeding because they know it suppresses fertility.) By way of comparison, it might be noted that 0.7 percent of all married women are using “strings” as a traditional method.

	Breast Milk and									
	Not Breastfeeding		Exclusive Breastfeeding		Water		Other liquids		Solid/Mushy Foods	
	1992	1996	1992	1996	1992	1996	1992	1996	1992	1996
0-3 Mos.	1.2%	0.4%	13.3%	26.3%	51.6%	42.4%	10.7%	7.3%	23.3%	23.6%
4-6 Mos.	0.3%	1.2%	2.2%	4.2%	11.5%	13.1%	10.1%	5.2%	75.9%	76.4%
7-9 Mos.	1.2%	1.5%	0%	0.3%	6.0%	1.9%	3.3%	1.1%	89.5%	95.2%
10-12 Mos.	1.7%	3.5%	0%	0%	3.8%	1.8%	3.1%	0.3%	91.4%	94.4%

Source: Zambia DHS 1992 and 1996

Data from the 1996 DHS indicate there has been an improvement in breastfeeding practices among the youngest children (0–3 months), with 26 percent of mothers reporting that they breastfeed exclusively compared to 13 percent in 1992. While this is encouraging, much more remains to be done. Most of the gains have come from reducing the intake of water (42 percent receiving water in 1996 compared to 52 percent in 1992). Intake of other liquids among children aged 0–3 months has also decreased (from 11 percent to 7 percent) but the inappropriate early introduction of food has not. Since giving water to infants is believed to be one of the more deeply entrained cultural practices, this change in behavior is particularly noteworthy since it shows that breastfeeding practices in Zambia are amenable to change within a short time period. Intake of solid/mushy foods in this early age group remains unchanged. Twenty-three percent of 0–3 year olds receive complementary foods, thus increasing the chances for diarrhea and other infections and, as importantly, compromising the overall nutritional quality of their diet and the fertility suppression benefits of LAM for the mother.

## **B. Policy**

A National Breastfeeding Policy was drafted by the National Food and Nutrition Commission (NFNC) in 1994, but has not been widely circulated. Few concerned organizations have actually seen it. The Central Board of Health's (CBOH) HIV/AIDS program directors, for example, were unaware of the policy. The goal is to have the policy adopted in 1998. As discussed below, the section on HIV/AIDS requires further development.

Zambia adopted a Code of Marketing of Breastmilk Substitutes in September 1996 under the Food and Drug Act. This was approved by the Cabinet but is still waiting to be legislated into law. To date, 18 health professionals have been trained by IBFAN-Africa to monitor the implementation of the code. As of yet, however, the code is voluntary and no legal action can be taken against violators. Unfortunately, the code has not been widely circulated so few commercial enterprises are aware of its existence.

Maternity leave is now fixed at 90 days for public employees. Legislation is being considered to extend this to 110 days. Negotiations have been initiated with the Ministry of Labour and relevant Ministries to develop a maternity leave provision for the private sector.

## **C. Technical Guidelines and Protocols**

At this time the CBOH is reviewing all technical guidelines and protocols as part of the country's health reform. LINKAGES has been asked to review relevant ones.

## **III. Key Findings and Recommendations: Breastfeeding Promotion**

The assessment team took a broad look at the institutional and program context in which breastfeeding and LAM could be promoted. These findings are divided up into three sections: Breastfeeding Promotion (Section III); Breastfeeding and HIV/AIDS (Section IV); and LAM (Section V).

### **A. Baby Friendly Hospital Initiative (BFHI)**

Efforts to promote exclusive breastfeeding and other optimal infant feeding practices have been largely limited to the Baby Friendly Hospital Initiative which has resulted in 30 BFHI-certified hospitals. Ten more are close to certification, leaving another 43 hospital/maternalities still to go. At present, the North and Northwest Provinces have no Baby Friendly facilities. UNICEF intends to continue support for training and certification, although it is unclear how many new hospitals they will be able to take on.

Staff working in hospital/maternity institutions report that it is difficult to find time to counsel new mothers as stipulated in the BFHI. In Lusaka, where mothers are interned for only 9–12 hours (the latter being the norm at the University Teaching Hospital [UTH], an institution receiving the more high-risk deliveries), finding time to spend the 30 minutes required to counsel mothers is rarely possible despite a health worker's best intentions. Nurses have suggested developing simple print material on breastfeeding and LAM and other family planning methods that could be laminated and attached to beds. This would be designed to supplement the initial mother/health worker interaction. There is also interest in exploring ways to use "volunteers" to take on the counseling of new mothers. Given the logistical problems of providing counseling at the time of birth, it is crucial for health centers and posts to have a knowledgeable staff to whom new mothers can be referred for advice.

Step Ten of the BFHI calls for establishing mother support groups to which hospitals can refer new mothers. This is also a criterion for certification and to date about 50–60 such hospital-based groups have been created. Establishing and sustaining these groups has fallen largely to hospital staff although other institutions such as NFNC/La Leche League International (LLLI) have set up other groups. So far there is no real system for creating and sustaining these groups and they seem to depend upon the personal dedication of hospital staff. The Matero Reference Health Centre group, in Lusaka, which the team visited, has been in existence since 1995 and has 100 members. A nurse from the center is responsible for meeting with the mothers each week. The mothers are clearly committed and have started their own outreach into the communities to reach new mothers.

UNICEF recently conducted an evaluation of the BFHI in Zambia. One of the key findings is that there has been slippage in many institutions. Staff turnover has been a problem as has the lack of a quality assurance and monitoring system.

## **B. Information, Education, and Communication (IEC)**

Interpersonal counseling and group education on exclusive breastfeeding and optimal complementary feeding practices is poor. Staff have not been trained and training organized through the BFHI has not reached beyond the district hospital level. A recent nutrition situation analysis that included interviews with health workers in five provinces found that most have not been exposed to the concept of exclusive breastfeeding (Darton-Hill 1995). Discussions with LLLI, the Zambian Breastfeeding Association, and numerous others interviewed for this assessment suggest that although inroads have been made, few health workers have sufficient knowledge to feel comfortable about advocating exclusive breastfeeding.

There is a dearth of IEC materials to help health workers remember key messages and to assist them in getting their point across. There are also no take home print materials for mothers and other caretakers. The integrated flip chart being developed by PCS has several sections on breastfeeding and infant feeding that will be useful for group discussions. More specialized material on BF/LAM is needed to guide one-on-one counseling sessions for clients obtaining

antenatal, postnatal, well-child, and family planning services. (A series of counseling cards on growth monitoring and infant feeding is being developed by BASICS and should fill the gap.)

Ongoing media support is a high priority. There has been limited use of the mass media to promote improved breastfeeding and child feeding practices, although experience from other countries suggests the media can play a crucial role in promoting exclusive breastfeeding and helping reinforce key points about child feeding. During the last four years, radio/TV spots have been supported by UNICEF for the "National Breastfeeding Week." This year's focus was on the benefits of breastfeeding with a campaign revolving around "Breastonomics." NFNC received feedback from mothers indicating that the message is getting out via these channels.

The NFNC has asked for technical support from LINKAGES to help develop an IEC strategy for infant feeding and other key nutrition behavior change goals, and to help think through how this would be integrated into the future national IEC plan. At present their IEC activities are ad hoc. As the IEC director told us, the sugar fortification strategy they are presently working on is the first real plan they have had that uses a systematic approach. The NFNC would like support to develop a BF/CF strategy and they are anxious to upgrade their staff capabilities through this process.

The team identified a number of existing radio programs (funded by USAID) onto which the BF/CF information can be piggybacked. Discussions with PCS indicate a number of possibilities. This includes:

- "Love, Courtship and Marriage" on Radio Phoenix
- "Sex, Youth and Truth," A 26 episode radio series—variety show format with interviews, drama, and information. LAM/Breastfeeding components could be included in the new series starting January 1998.
- Health Reform Radio Programs (Could use breastfeeding as an example of a health topic that can be integrated into prenatal, family planning, and other contexts.

### **C. Human Capacity and Training Needs**

Zambia has a good core of fourteen trained specialists; nine specialize in lactation management and five in LAM. Many of them are at the University Teaching Hospital (UTH). However, all but one of the specialists are in Lusaka. They are also needed in other parts of the country. Some additional training would be beneficial to provide lactation management training to the LAM specialists and orientation on LAM to the others.

The 14 master-level trainers work at three levels. The lactation specialists (trained at Wellstart, Georgetown, and the London Institute of Child Health) have been the backbone of the country's breastfeeding training effort initiated in 1993 through the BFHI. They have conducted a total of 31 courses (40 hours each); and 18-hour courses for each of the nine maternities in Lusaka. The UTH has been most supportive in allowing leave to the Wellstart master trainers to conduct these

trainings. It should be noted, however, that it was not until 1996, that the team, drawn largely from Wellstart International (San Diego) and the London Institute of Child Health, received training as trainers (TOT). This group of 14 is a resource for master trainers in breastfeeding, complementary feeding, and maternal nutrition for the country

Consideration should be given to training additional breastfeeding specialists to cover areas of the country where there is no trained personnel. Right now only Lusaka and Kitwe are served. A two to three week in-country course for district level staff is proposed, with the curriculum for the first time covering both breastfeeding and LAM.

Wellstart International, through their present LME centrally-funded project, has about \$5,000 remaining. They intend to use this money for educational and training materials for the Zambian Wellstart Associates to use in the trainings they conduct. NFNC is managing the funds.

The national training plan for primary health practitioners (PHP) and community health practitioners (CHP) calls for an end to ad hoc training in vertical programs. A system is being put in place that will depend upon selected institutions to provide in-service training; training of trainers in these institutions; and an ambitious program to retrain 3000 PHPs and another 2000 CHPs over the next two years. There is a critical need to train trainers in key nutrition subject areas that are integrated in four of the six core training modules being developed. LINKAGES input is needed to both review training modules and train the trainers. (USAID is focusing support on these new cadres; they are not training medical doctors on medical school curricula.)

#### **IV. Key Findings and Recommendations: Breastfeeding and HIV/AIDS**

Present evidence based on a meta-analysis of breastfeeding and AIDS studies indicates that about 14 percent (accepted range 7–22 percent) of infants born to HIV-positive mothers will be affected via breastfeeding. UNAIDS policy regarding HIV and breastfeeding in the general population is that breastfeeding should be promoted irrespective of HIV infection rates. However at the individual level when mothers know their HIV status, counseling should be provided giving them all the information necessary to assist in making an informed choice on how to feed their infant.

Given the vital importance of breastmilk and breastfeeding for child health, and especially in settings such as Zambia where infectious diseases remain the major cause of death, avoidance of breastfeeding is not an option. Infants who are not breastfed are up to 14 times more likely to die from diarrhea compared to those who are breastfed. In Zambia, the seroprevalence rate among antenatal attendees is 27 percent in urban areas and 5–13 percent in rural areas. The DHS results show that 69 percent of Zambians live below the poverty line and infectious diseases are a major cause of death among children. This suggests that support for breastfeeding is still the best option. Estimates made by Dr. Miriam Labbok, Chief of Maternal Health and Nutrition at USAID, indicate that for **high-risk countries such as Zambia where HIV prevalence is**

**extremely high, infection through breastfeeding affects only a small proportion of infants, three percent at most.**

**A. Socio-cultural and information environment**

Cultural norms remain highly supportive of breastfeeding in Zambia, although recently there has been heightened concern about the safety of breastfeeding given the high rates of HIV/AIDS in the country. As one observer noted, “a lot of people are starting to ask questions.” In May, the NFNC and the Pediatrics Association held a symposium on the subject; in September the Interfaith Council of Churches debated the topic; and in the past months there have been a number of articles in the local press raising questions about the safety of breastfeeding. The Central Board of Health and the NFNC staff report that they are more frequently being asked questions about breastfeeding and AIDS and that there is a considerable amount of misinformation about the rates of vertical transmission through breastmilk. Several women’s groups in Lusaka have taken up the issue advocating against breastfeeding.

**B. Policy**

The National Breastfeeding Policy on Breastfeeding includes a statement about HIV and Breastfeeding which supports the promotion of breastfeeding as the main national interest. The policy also states that counseling should be provided to individuals so they can make an informed choice on how to feed their infants. There are few people who know their HIV/AIDS status and who can afford alternative feeding modes. However, the policy, which is still in draft form, lacks guidelines on counseling, implementation, and monitoring. LINKAGES input has been requested to help develop the policy.

The draft STD Policy in Reproductive Health, now being circulated, does not give adequate attention to the BF/AIDS issue. The AIDS/STD Programme would welcome technical input from LINKAGES.

Government policies, technical norms, and training courses do not address the issue. Health workers are pretty much on their own as to how they advise mothers, although most continue to advise all women to breastfeed—except those with visible signs of AIDS. Developing guidelines to address these gaps is an area where technical input from LINKAGES would be helpful.

There are no explicit government policies or clear guidelines on how to address issues concerning AIDS orphans and there are no policies governing infant feeding of these children. This is an important concern as a recent UNICEF survey found that 42 percent of urban households and 33 percent of rural ones are caring for orphans (Mphuka 1997). Project Concern International (PCI) is launching a new project that will address the many policy issues as well as the practical questions of how to prevent HIV infection among children and provide health and other support. Infant feeding and breastfeeding were not originally part of the project design, but

PCI is interested in further dialogue with LINKAGES to clearly define the issues and strategies for addressing them. This may include developing home-based breastmilk substitutes.

The government's HIV/AIDS policy reflected in the *Strategic Plan for 1994–1998: A Time to Act, a Time to Change*, does not address vertical transmission from mother to infant (Zambia National AIDS/STD/TB and Leprosy Programme) but focuses on reducing heterosexual transmission and on screening of donated blood supplies. Surveillance activities are other priorities. LINKAGES input would be helpful to develop a policy for this context.

### C. Service Infrastructure

Voluntary HIV testing and counseling services are not widely available. At present, testing facilities are available at district level hospitals. There are no plans to have HIV testing at a lower level. On average, tests cost between \$5–\$6. Many people have a “phobia” against testing and do not get tested. As a result, in some facilities the volume of clients is low and the cost of the tests is higher.

The very limited availability of testing facilities is a prime impediment to reducing the transmission of HIV/AIDS via breastmilk. A policy of informed choice on infant feeding rests on mothers knowing their HIV status. Directors of the national AIDS prevention effort consulted during this assessment see information about HIV status as the **prime prerequisite for moving forward on the BF/AIDS issue** and they indicated the need to consider integrating HIV testing as part of antenatal services. The Irish development agency has submitted a proposal to fund such an activity. UNICEF is considering the possibility of expanding their support for STD testing kits to include HIV-test kits for antenatal facilities. Cost is a prime consideration. Studies to examine competing needs for testing services and other preventive interventions are needed. Studies are also needed to determine how to provide cost-effective testing and counseling to pregnant women in high-risk zones.

### D. Knowledge, Attitudes, and Practices

Information on HIV transmission from mother to child is often vague and misleading. This is partly because scientific evidence on the frequency of maternal transmission and the role of breastfeeding in HIV transmission has improved rapidly over the past decade. There has been little public information on the subject in Zambia and what does appear in the press is often inaccurate. Many health workers are confused about which message to give. A recent series of focus group discussions with young people found that the majority believe in the inevitability of mother-to-child transmission. The research also found that nurses in Zambia commonly believe that mother-to-child transmission is inevitable and that little can be done to prevent it. Although many understand that breastfeeding can be a transmission mode, there is much misinformation including belief that if a mother produces a healthy child the mother cannot be infected. (Baggley 1996). The 1996 DHS found that knowledge about AIDS is nearly universal. Breastfeeding did not come up when men and women were asked how to avoid AIDS.

Since few mothers have access to testing or know their HIV status, and since few can afford breastmilk substitutes, health workers who counsel mothers as well as the mothers themselves feel they have no alternatives to breastfeeding. LINKAGES' very limited sample of health providers found little consistency on what HIV-positive (or suspected HIV-positive) mothers are told regarding the risks of breastfeeding and alternatives. Cultural norms are also a factor. There appears to be a strong "phobia" against HIV-testing and unwillingness to confront the extent of HIV/AIDS in the community. Furthermore, health workers report that there is strong cultural expectation to breastfeed. Mothers prefer to assume they are free of infection. Mothers who suspect or know that they are HIV-positive prefer not to reveal their status for fear of being stigmatized. Most will continue to breastfeed even if they have the resources to use breastmilk substitutes.

There is little collaboration at present between the nutrition and HIV/AIDS organizations. More regular contact and sharing of information and strategies would be very helpful. This is an issue the NFNC should take the first step on.

#### **E. Public Information**

There has been no public information on breastfeeding and HIV/AIDS and there is no organized response to misinformation in the press. Developing a strategy is of high priority for maintaining public confidence and protecting the breastfeeding gains of recent years. The country's leadership should be well informed on the issue and supportive of the government's policy on BF/AIDS. Erosion in breastfeeding would have serious public health consequences. Initial actions should focus on educating the press on this issue and reaching key groups in the scientific, medical, and professional communities with balanced information. A series of technical briefings and fora could be organized. The NFNC met last year with the Pediatrics Association—more such meetings need to take place.

The breastfeeding/AIDS information strategy should be reviewed frequently. A broader IEC program may be warranted at a later stage.

#### **F. IEC**

Health workers need clear information on breastfeeding and HIV/AIDS and they need guidance on counseling clients. Operations research is needed to develop effective strategies for talking about risk to mothers from different educational levels and to find out how best to provide support to those mothers who choose not to breastfeed. Counseling strategies will need to take into account the present context in Zambia where HIV testing is not readily available and where mothers generally do not know their HIV status. Such research is a high priority for the UTH. Groups such as PCI may also be interested in collaboration, but further discussions are required to see how this would fit in with their activities.

## **V. Key Findings and Recommendations: Promotion of LAM**

### **A. Policies**

The lactational amenorrhea method of fertility regulation (LAM) has been integrated into the national Family Planning Policy Framework (1997). There is a description of the method as well as guidelines on service delivery. LAM is also addressed in the National Breastfeeding Policy.

The most pressing need is to harmonize technical guidelines and protocols relating to exclusive breastfeeding and LAM. At present there are two sets of guidelines: one based on maintaining “full” breastfeeding (breastmilk plus water) and the other based on supporting “exclusive” breastfeeding (breastmilk only) for the first six months. While LAM is a more “forgiving” practice than exclusive breastfeeding in that some intake can come from water and other liquids and still be effective in suppressing fertility, to get the maximum child nutrition and health benefits from breastfeeding demands no intake of anything except breastmilk. National LAM and breastfeeding experts consulted on this issue are unanimous in using the stricter “exclusive” breastfeeding guidelines for both the LAM and child survival breastfeeding guidelines. This will make it much easier and clearer for mothers and health workers. Training and IEC materials need to be revised accordingly. (For example, documents should all refer to “exclusive breastfeeding” instead of “full” breastfeeding now present in the LAM documents. There are also implications for the frequency of feeds and the guidelines about water.) LAM users will, however, be given additional instructions on milk expression to assure adequate nipple stimulation for suppressing ovulation.

### **B. Service Delivery**

LAM is being provided as an integral part of family planning and reproductive health services by CARE, the Planned Parenthood Federation of Zambia (PPFZ) and the Family Life Movement of Zambia (FLMZ), which has its own staff person posted in all the MOH health centers in Lusaka. One of the major issues confronting these groups is how to maintain women’s confidence in LAM—not surprisingly, given the barriers to maintaining the exclusive breastfeeding regime. The health providers we talked to report that mothers are nervous about the efficacy of the method and require a lot of reassurance. No qualitative research has been done on this issue, but health workers feel LAM is not yet seen as a legitimate family planning method but as a non-modern one. Part of the problem they see is that although LAM does figure as a method in most of the family planning IEC materials, it is not given legitimacy by television or radio promotion.

There is strong interest in strengthening the LAM component of FP programs. Some possible activities were identified for attention, and they are as follows:

- *Strengthen the coordination of all agencies that are engaged in the use/promotion of LAM.* Assist the NFNC to develop a strategy on how to coordinate and network with other agencies engaged in LAM.
- *Develop selection criteria for LAM users.* A screening checklist is needed, comparable to those currently available for other FP methods. Most mothers wait until two to three months postpartum to seek FP advice; while most meet the criteria of amenorrhea (and meet the age criteria for the child), few mothers practice exclusive breastfeeding. Health workers must question the mother on her breastfeeding practices and determine if she is “fully” breastfeeding (some water and food being permitted but hard to access.)
- *Experiment with giving mothers a continuation method at the time they adopt LAM.*
- *Find ways to integrate support to LAM users through non facility-based mechanisms such as mother support groups, “circle of friends,” and growth monitoring/promotion sessions.* Guidelines in use at FPAZ and FLMZ call for monthly follow-up visits, but these are burdensome to health workers and users.
- *Harmonize the BF and LAM counseling now taking place.*

The LINKAGES project is proposing testing a model to address these issues. CARE and BASICS are potential partners. CARE has proposed working in Lusaka and Kitwe where BASICS is also active. A plan of action will be developed.

CARE participated in the Georgetown LAM training held in 1995 and has subsequently held a workshop to train other staff. Although LAM has been offered now for two years as part of its largely peri-urban program, CARE's family planning providers are not giving much attention to the method because they feel it needs more time than other methods. More training might help give them more confidence. Other changes in service delivery or responsibilities may be required.

The main other issues reported are that 1) mothers don't feel comfortable practicing LAM and keep coming back to the service provider for reassurance and for other methods (even though LAM is still effective; 2) health providers do not report on LAM users since there is no commodity involved; and 3) the quality of breastfeeding is a major concern. Women's heavy work loads result in poor feeding frequency and too early supplementation. CARE would like to explore ways of using their “circle of friends” (established to support family planning) to help support breastfeeding on a neighbor to neighbor basis. The “circle of friends” approach has worked well, although some groups have started giving advice to other groups and are now asking for financial or other incentives. Sustainability of these support groups is a concern for CARE. CARE is also trying to keep the groups small so that women can support each other—the larger groups don't seem to work.

LINKAGES may wish to document CARE's experience in using double contraceptive methods (LAM plus) to address the high prevalence of HIV/AIDS. Also of interest is the provision of follow-on contraceptives before LAM expires. CARE has some experience in this area and would like to systematically explore options through operations research.

### C. Launch of PROLACT —“A Convenient Contraceptive for Breastfeeding Mothers”

The launch two weeks ago of PROLACT, a vaginal foaming tablet being targeted to breastfeeding women, raises a number of issues about how to avoid confusing mothers about the benefits of LAM. Also, how will health workers be able to take advantage of this uniquely positioned product to focus attention on how important it is for breastfeeding mothers not to get pregnant. Women with children less than two years (a majority of whom are breastfeeding mothers) are the highest priority target group for family planning information and services according to the Family Planning Policy Framework (1997). Most women currently breastfeed for about 18 months. Data from the 1992 DHS, however, indicate that 25 percent of these target women cut short their breastfeeding because they get pregnant. In the 15–19 age group these “too frequent” pregnancies account for 40 percent of all pregnancies in this group.

The publicity for PROLACT could have a secondary marketing theme: **the importance of protecting breastfeeding mothers from getting pregnant during the first two years postpartum** in order to give the child the best start in life. Breastfeeding for two years is a cultural norm and could prove a strong motivation for using a contraceptive. This would be a new promotional tact.

PSI has expressed interest in looking at ways to provide additional umbrella support for breastfeeding as part of the PROLACT campaign. This might take the form of an additional radio spot. Also discussed with PSI, PCS, and JSI was the development of a “New Baby Welcome Kit” that could include PROLACT, a brochure on breastfeeding (the importance of not getting pregnant while breastfeeding), and a review of family planning alternatives for breastfeeding mothers, including LAM. LINKAGES would provide technical input. Adding a phrase about PROLACT being an alternative to other postpartum methods (including LAM) might also be considered when the product instruction sheet is reprinted.

#### Possible Promotion Concepts for LAM as part of the PROLACT publicity

- Babies deserve to be breastfed for a full 24 months
- Not good for children if the mother gets pregnant while she is nursing
- Not good for the mother if she has a pregnancy too soon after delivering because it does not allow time for her to recuperate
- PROLACT is one method available for breastfeeding mothers; other post-partum methods are also now available in Zambia

General positioning for LAM:

- Provides best nutrition for child and contraceptive protection for the mother for up to 6 months after the baby is born
- Appropriate for women interested in spacing their next pregnancy
- Gives the mother time to select a modern contraceptive method for use when LAM is no longer effective—around 6 months postpartum
- LAM is a starter method



**Prolact**  
FAMILY PLANNING FOAMING TABLETS

*A convenient contraceptive for breast-feeding mothers.*

**What is Prolact?**  
Prolact is a foaming tablet which provides a safe, simple-to-use way to prevent unwanted pregnancies.

**How does Prolact work?**  
The tablet once inserted into the vagina dissolves and creates a foam which blocks the sperm from entering the womb.

**Who should use Prolact?**  
Prolact can be used:

- ◆ By a new mother while breast-feeding for the first 6 months as a *safe and short term* method because the combined family planning pill is not recommended at this time.

Prolact can also be used by women at certain other times in their lives:

- ◆ As a *back-up* method if a woman has forgotten to take the family planning pill for 2 days or more.
- ◆ As an *alternative* method when a woman is unable to use any family planning method such as family planning pills, IUD's and injectables for medical reasons.

**SEE YOUR FAMILY PLANNING PROVIDER FOR MORE INFORMATION.**

Prolact is ideally suited for breast-feeding mothers for the first 6 months. Women can change to a more effective family planning method like oral contraceptive pills (like SafePlan) after this 6 month period.

Tear off a single tablet from the foil strip. To open, use your fore-fingers and thumbs and tear foil. Insert one tablet inside the vagina. Use the index finger to push the tablet as far as possible into the vagina. Wait at least 10 minutes after insertion to ensure proper contraceptive protection.

**IMPORTANT:**

- Prolact does not provide protection against STDs including HIV/AIDS. Use a condom (like MAXIMUM) condom for protection against STDs/HIV.
- Prolact can be used together with a condom.

Prolact and other spermicides offer considerable protection against unwanted pregnancies as compared to unprotected sexual intercourse. To improve effectiveness, it is recommended that Prolact is used along with another barrier method such as condoms or diaphragms.

Prolact is available at pharmacies, chemists, drug stores, private clinics and through certain NGOs. You do not need prescription to purchase.

**Use Prolact**  
*A convenient contraceptive for breast-feeding mothers.*



**Prolact**  
FAMILY PLANNING FOAMING TABLETS

*A quality product imported from the USA for distribution in Zambia at a subsidized price.*

**SOCIETY FOR FAMILY HEALTH. (PSI/PSZ)**  
P. O. BOX 50770  
Phone: (260-1) 286332 - 3  
Fax: (260-1) 286726  
Lusaka, Zambia.



## **D. IEC**

When reviewing LAM materials, the team observed inconsistency in definitions of the terms used and in the selection criteria of LAM users.

A counseling card on LAM was developed under the Georgetown Institute for Reproductive Health's research project with the PPAZ. However, this was produced in limited quantities and is not widely available. Health providers from the Ministry of Health do not have educational aides or take-home materials for mothers.

Several new IEC materials being developed by the Zambia Family Planning Project will fill an important gap. The new flip chart and fact sheets being developed by PCS (Integrated Health Kit) provide basic information about LAM for use in group education sessions at the facility level. Also in development are a series of counseling cards for use in individual counseling. LINKAGES has been asked to draft the text for the card on LAM and to review the other materials.

## **E. Training**

Five people were trained in LAM at Georgetown University and are now based at CARE, PPFZ, LLLI and FLMZ.

As discussed above, outside of hospitals/maternalities, few service providers have been trained in breastfeeding management, which is vital in promoting successful LAM.

There are a number of training curricula under development into which LAM should be integrated. John Snow International (JSI) has asked LINKAGES to provide input into relevant units in the PHP upgrade course for Maternal Health and family planning; and HIV/AIDS as well as the family planning pre-service curriculum. Additionally, the district directors course might also require technical review.

## **VI. Key Findings and Recommendations: Maternal Nutrition and Private Sector Products**

The Government of Zambia, in its National Program of Action (1994), has listed the reduction of anemia in women as a top priority and has set a goal of reducing anemia in women by one third by the year 2000. Anemia is listed as the fourth major cause of death in Zambia and ranks tenth in terms of DALYs (disability adjusted life years) lost. Anemia among pregnant women is of particular concern because of its well-documented impact on both maternal and child morbidity and mortality. Importantly, iron deficiency also affects women's stamina and work capacity. Although national data do not yet exist, it is estimated that up to 50 percent of pregnant women in Zambia are anemic.

Iron and folate supplements are being provided routinely to most urban and rural health centers and associated community health workers through the essential drug kits program. However, it is widely believed that this has had little impact on maternal anemia for several reasons. First, it is unclear whether health providers are giving the iron and folate supplements regularly to their antenatal clients or providing sufficient counseling to their clients on the advantages of supplements or the possibility of side effects. Second, it appears that there is low compliance among clients, due to fears of side effects and popular misperceptions that taking the supplements will result in a baby that is too large (thus causing difficulties during delivery). Finally, although over 92 percent of women in Zambia seek antenatal care from a modern health provider, most do not present for care until a late stage of pregnancy.

LINKAGES proposes a social marketing campaign that will work to increase the regular and timely use of iron and folate supplements among pregnant women. This would be managed by PSI, a LINKAGES subcontractor, with a strong country marketing network and capacity in Zambia. Initial formative research will be conducted using facility audits, exit interviews, and focus group discussions to determine critical barriers in the supply and demand of supplements. Specifically, this research will determine the constraints providers face in supplying supplements to their clients and ensuring compliance; explore the nature of the provider/antenatal client relationship; and examine attitudinal and other barriers among pregnant women regarding the use of supplements. This research will also seek to identify potentially suitable alternative “points of sale” that are not currently being exploited. Further, LINKAGES will suggest a number of questions to be added to the planned national baseline study on iron deficiency anemia to be conducted this fall under the auspices of the National Food and Nutrition Commission. LINKAGES will review the results of this study and its own research to guide the design of appropriate social marketing interventions at the community and national levels.

It is expected that the social marketing project will have several components. One activity will be to raise awareness among health providers of the importance of iron/folate supplements and to improve their prescription practices and counseling skills. This will be achieved through training health workers and providing them with educational and other promotional materials. Another project component will be to conduct a community- and national-based IEC campaign targeted to pregnant women to heighten awareness of and educate about the advantages of iron/folate supplementation and timely antenatal care. This campaign will serve to increase demand for iron/folate supplements; improve compliance; and result in pregnant women seeking care at an earlier stage of pregnancy and with more frequency. Finally, the social marketing project will explore the desirability and feasibility of introducing a branded combined, iron/folate supplement to complement current public distribution efforts. This social marketing product would be attractively packaged to appeal to clients and providers and would include an easy-to-understand instruction insert and monthly “tick off” card. The social marketing product would be distributed through private and/or public channels at a price affordable to low income consumers.

## **VII. Summary of Recommendations**

### **A. Breastfeeding Promotion**

- Provide technical assistance (TA) to develop and review policies, technical guidelines, and norms; IEC materials; and training curricula related to breastfeeding, complementary feeding, maternal nutrition, breastfeeding and AIDS, breastfeeding and family planning, and other relevant areas.
- Provide TA to harmonize policies, technical guidelines, and protocols; and IEC and training curriculum related to LAM and exclusive breastfeeding.
- Provide TA to strengthen the coordination mechanisms in place to link organizations active in BF/LAM/CF to those implementing the new integrated health packages on maternal health and family planning; STDs/HIV/AIDS/TB; and integrated prevention.
- Provide TA to finalize and test the pre-service breastfeeding curriculum for relevant cadres.
- Provide TA to support capacity building and Training of Trainers in LAM and Lactation Management.
- Provide TA to assist the NFNC develop IEC strategies to improve BF/LAM/CF practices and integrate them into the national IEC plan for health.
- Provide support to the mass media to promote BF/LAM/CF.
- Provide TA to develop indicators and monitoring mechanisms for breastfeeding, including working with the health management information system (HMIS).
- Conduct an in-country intensive training on BF and LAM to expand the existing pool of expertise to areas outside Lusaka.

### **B. BFHI**

- Provide TA to expand the BFHI to the communities by strengthening mother support systems.
- Provide TA to design a re-assessment tool for baby friendly facilities to ensure quality control.
- Develop an information sheet for mothers that will be permanently available at all bedsides in hospitals and maternities.

### **C. Breastfeeding and AIDS**

- Assist in developing a public information strategy targeting the press, key leadership groups, AIDS and health-related organizations, etc.
- Provide TA to finalize the BF/AIDS section of the National Breastfeeding Policy.
- Support development of a BF/HIV/AIDS guidelines in counseling for health workers to complement HIV/AIDS and infant feeding policy and policies governing orphans.
- Provide guidance in fostering collaboration among agencies engaged in nutrition and HIV activities such as National AIDS Program.
- Provide TA to train PHP trainers in HIV/AIDS and breastfeeding.
- Conduct operations research to 1) develop and test high quality, affordable breastmilk substitutes (home or community prepared), and 2) test counseling strategies on BF/HIV/AIDS that will support informed choice; help HIV-positive mothers reduce the risks of alternative feeding modes while at the same time maintaining a positive climate for breastfeeding among the large majority of HIV-negative mothers.

### **D. LAM and Provision of FP for Breastfeeding Women**

- Continue to review training and educational materials on LAM.
- Provide technical assistance to develop guidelines for LAM users.
- Provide LAM training of trainers for the core group that facilitates training of PHP and CHPs.
- Provide support for development, production, and dissemination of mass media and print material on LAM and other FP methods for breastfeeding women (jointly with PCS, PSI, and JSI). This includes elements for radio programs already on the air, flip charts and counseling cards, and a “Welcome New Baby Kit.”
- Provide support to develop, implement, and evaluate a community-based demonstration activity to improve delivery of BF/LAM in an integrated service delivery environment (jointly with CARE and BASICS). Kitwe and Lusaka area tentative sites.
- Collaborate with PSI and PCS in developing additional breastfeeding/LAM information as part of the IEC umbrella program for PROLACT, a vaginal foaming tablet.

## **E. Maternal Nutrition and Private Sector Products**

- Conduct formative research using facility audits, exit interviews, and focus group discussions to answer critical questions regarding supply and demand for supplements (to be completed during the fourth quarter of 1997).
- Suggest additional questions to be added to the NFNC iron deficiency study to establish national baseline indicators for the social marketing intervention (expected completion date mid-January 1998).
- Use results from formative research and the NFNC study to develop an iron/folate social marketing project, including the design of training curricula and materials; design of educational and promotional materials for providers and clients; design of IEC campaign materials and choice of media; identification of alternative “points of sale;” and (if found desirable) development of an affordable, branded iron/folate supplement (to be completed by mid-1998).
- Integrate the iron/folate social marketing project into other ongoing and planned activities conducted by the Society for Family Health and other organizations involved in nutrition, family planning, and maternal and child health (to be performed concurrently with the above. Activities will be designed and implemented in close collaboration with other key stakeholders).
- Launch social marketing campaign (to begin during the third quarter of 1998 and continue through the year 2000, at which point impact would be evaluated by using national statistics on anemia prevalence among pregnant women and by measuring progress on other project-specific indicators).

## **VIII. Next Steps**

1. Complete a review of IEC, training, and policy guidelines now in the development stage. A memo with recommendations for revision will be sent to PCS, JSI, and the NFNC via e-mail by October 10.
2. Prepare budget options for the proposed activities for review with USAID-Zambia in prioritizing activities for LINKAGES support over the next two years.
3. Conduct formative research to launch iron/folate tablets through a social marketing program. To do this PSI will use facility audits, exit interviews, etc.
4. Develop a plan of action with CARE (to conduct a demonstration activity to strengthen LAM and breastfeeding).

5. Provide technical assistance in early 1998 for the training of trainers for the PHPs and CHPs.
6. Pursue discussions during the next technical assistance visit with UTH, PCI, the CBOH, and NFNC on undertaking an OR project on BF/AIDS counseling and the development and testing of alternatives to breastfeeding for HIV-positive mothers and orphans.
7. Prepare a list of the breastfeeding experts in the country. This will be circulated to all the CAs and to the NFNC and other key institutions.

## ANNEXES

## ANNEX A

### **Scope of Work ZAMBIA ASSESSMENT TRIP FOR LINKAGES**

Assess the current status of, and future programming possibilities for strengthening breastfeeding (including LAM), complementary feeding, maternal nutrition, and related nutritional practices within the context of ongoing health, nutrition and family planning programs. Specifically, the LINKAGES team will:

- a) Assess the epidemiological, programmatic, and policy situation in Zambia with regard to the nutritional issues listed above. This situation analysis will build on previous work including the “Strategy for Technical Interventions for Nutrition Components of Health” developed by BASICS, with a focus on identifying ways to strengthen breastfeeding and related areas within the context of the government’s Health Reform guidelines and move to decentralize health services; and the mission’s program of support for maternal, child, and reproductive health.
- b) Assess programming possibilities to improve focal nutrition practices. The team will concentrate its efforts in identifying compatible and realistic nutrition goals. This will include developing comprehensive strategies for integrating breastfeeding and related nutrition concerns into existing training, supervision, IEC, and MIS plans.
- c) Prepare a situation analysis and draft marketing plan concerning the addition of nutritional products, such as iron/folate tablets for pregnant women, using social marketing and community-based approaches.
- e) Provide input to the Memorandum of understanding now being drafted between UNICEF-Zambia and USAID/Zambia for Interagency Collaboration on Nutrition to Support the National Food and Nutrition Commission (NFNC), the Central Board of Health (CBOH) and Districts. And, participate in a 1-2 day “Roundtable of Nutrition Partners” being organized by UNICEF to review and finalize the MOU.
- f) Identify interventions and a plan for technical and other support that could be provided by LINKAGES. This plan will be developed within the framework of the above mentioned MOU, and be coordinated with the planned input of BASICS, OMNI and other CAs implementing nutrition activities under the Zambia Integrated Health Package (ZIHP).
- g) Initiate a review of the existing training curricula, supervision instruments, and protocols, IEC strategies, and materials. Recommendations will be made regarding ways to strengthen the nutrition content; integrate training methodologies that may be particularly effective for imparting nutrition information, skills, and counseling for behavior change. Particular attention will be given to a review of:

-- IEC material drafts and

--CHW and other training materials drafts now in preparation by BASICS.

h) Given the HIV prevalence in Zambia and concerns about transmission through breastmilk, the team will discuss recent findings and international recommendations about breastfeeding and AIDS with government counterparts and local programs.

ANNEX B

**List of Contacts**

## Persons Contacted

Organization	Name	Title	Phone
USAID	Paul Zeitz	Health Officer	254303/8
	Paul Hartenberger	Dir., Population Health Nutrition	
World Food Program	Robina Mulenga	National Program Officer	254332
	Bai K. M. Bojang	Advisor/DCD	254332
	Alix Loriston	Project Officer	
Central Board of Health	Peggy Fulilwa	Manager, Service Support	253180
	Jenny Meya Nyirenda	Child & Reproductive Health	
	Sarah Beyani Siyamuleya	Reproductive & Child Health	
	Dr. Moses Sichone	HIV/AIDS/STD/TB Expert	
	Dr. Challa	HIV/AIDS/STD/TB Expert, Directorate of Systems Development	
Pharmaceutical Society of Zambia	David Phiri	President/Pharmacare	227705
Gamma Pharmaceuticals Ltd.	Gahn J. Patidar	Chief Executive Officer	02-651487
Churches Medical Association of Zambia	Dr. Marlon Banda	Head Pharmacist	229702
	Rose Kabwe	Projects Officer (PHC)	
World Health Organization	Annoek van den Wijngaart	Associate Professional Officer	221318
	Dr. M. P. Shilalukey	Medical Officer-DPC	
Central Statistics Office	Rev. Charles Banda	Head, Pop. and Demo. Branch	252575
ODA, Health and Population	Prof. Alan F. Fleming	Director of Laboratory Svcs.	254809
FANIS	David Kasongo	Nutritionist	
Zambia Information Services	P. Jabani	Director	251975

BASICS	Remi Sogunro	Chief of Party	239190
	Abdikamal Alisalad	Child Health Coordinator	239190
	Paula Nereisan	Technical Officer	703-312-6800
	Altrena Murkuria	Operations Officer (Wash. DC)	703-312-6800
	Adwoa Steele	Nutrition Specialist (Wash. DC)	703-312-6800
UNICEF	Marashetty Seenapa	Programme Officer	252055
	Dorrina Mukupo	Nutrition Officer	252430
	Nicola Bull	Maternal and Adolescent Health Coordinator	
Zambia Breastfeeding Association	Mulima Muzeya	Vice Treasurer	
	Molly Chisenga	Vice Chairperson	
	Mwate Chintu	Nat'l Breastfeeding Coordinator	
	Jennifer Munsaka	Publicity Secretary	
		London Associate	
	Maureen Mzumasa	Committee Member	
		London Associate	
	Rose Shamambo	BAZ Chairperson	
	Catherine Kaunda	Treasurer	
	Margaret Mbelenga	Secretary	
	Wellstart Associate	227803	
National Food and Nutrition Commission	Priscilla Likwasi	Director (Acting)	
	A. Van Den Winjngaart	Associate Professional Officer	
	Freddie Mubanga	Head Training & Collaboration	
	Chongo D Kaite	Head Research	
	Beatrice Kawana	Nutritionist/Dietician	
	Ward Siamusantu	Nutritionist, Research & Planning	
	Ruth Siyandi	Nutritionist, Wellstart Associate	
	Helen Chimbelu	Head Communication Unit	
	Mwatet Chintu	Breastfeeding Nat'l Coordinator	
	Eustina Mulenga-Besa	Communication Unit	
	Funny B. Kondolo	Administrative Manager	227803
UTH Department of Paediatrics and Child Health Care	Prof. GJ Bhat	Assoc. Prof. of Health/Nutrition	
	Dr. Sam Phiri	Consultant Paediatrician	
		London Associate	
	Dr. Beatrice Amadi	Senior Registrar	
	Wellstart Associate		

	Dr. G. M. Shakankale	Lecturer in Paediatrics and Child Health	
	Margaret Mbelenga	Nursing Officer Wellstart Associate	
	Jennifer Munsaka	Nursing Sister OBS & Gyn Wellstart Associate	
	Maureen Mzumara	Nursing officer OBS & Gyn. Wellstart Associate	
	Dr. Dorothy Kavindese	Senior Registrar	
	Venus Shamoya	Nursing Officer, Department of Surgery	
	Molly Chisenga	Nursing Officer	
	Elwyn Mwika Chomba	Head of Pediatrics & Child Health Department of Surgery	260-1-250155
	Dr. T. J. Patel	Quick Care Surgery	222713
	Dr. Hilda Mutayabarwa	Woodland Surgery	260236
	Dr. J. A. Patel	Mawari Medical Center	221032
	Dr. Desai Nalini	Get Well Medical	221793
	Dr. Nasima Alehter	Care in Cure Med. + Diagn. Ctr.	238114
	Dr. Dorothy Kasondo	Mutti Medical Center	
Zambia Family Planning Services Project	Elizabeth Serlemitsos	Chief of Party, JHU/PCS Project, IEC	238823/4
	Mary Segall	JSI, Training , Advisor	260-1-238-823
	Suzane Thomas	JSI, Chief of Party	
	Catherine Mukwakwa	Training Coordinator	260-1-238-823
World Vision International	Dr. Kwasi P. Nimo	Assoc. Dir., Technical Services	
	Paul Chungu	Health Behaviour Officer, HIV/AIDS HTA Project	370723
	Gilda Chibale Ngoma	Health Coordinator	260-1-260722
Project Concern International	Robie Siamwiza	Technical Advisor, Policy	221314
	Stefan Paquette	Deputy Director	619-279-9690
	Sitwala Mungunda	Project Officer, Orphans Project	221314
CARE	Claudia Ford	Health Sector Coordinator	260-1-253614

	Doras Chirwa	Assistant Project Manager	260-1-253614
	Tabitha Chikunga	Project Manganer	260-1-253614
Family Life Movement of Zambia	Regina C. Lungu	Prov. Supervisor/Trainer	221898
	Lubinda M. Tafira	Executive Director	221898
Department of Energy, Zambia	Peggie L. Chiwele	Senior Energy Planner	
Planned Parenthood Assn. of Zambia	Godfrey Musonda	Executive Director	228178
	Christine Mutungwa	Director of Programme	228198
	Funny Kondolo	Administrative Manager	
	Charity Aribwe Mwenifumko	Nurse, Midwife, Georgetown	
	Hilda Mwasusa Wilma		221772

ANNEX C

**Reports and Documents Reviewed**

**Zambia Document List**

“AIDS Prevention and Mitigation in Sub-Saharan Africa,” *An Updated World Bank Strategy*, December 15, 1995.

AliSalad, Abdikamal. “Report on the Health Facility Survey and IMCI Training in Lusaka, Zambia,” March 7 - March 10, 1996.

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Serpell, Namposya. "Strategy for the Development of PCIZ Program of Assistance to HIV/AIDS Orphaned and Vulnerable Children in Zambia." *Project Concern International*, August 1997.

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Act, A Time to Care."

## ANNEX D

Memo: Review of BF/LAM content in draft technical guidelines; IEC materials

### COMMENTS ON TRAINING AND IEC MATERIALS

Prepared by:

**Peggy Parlato and Nomajoni Ntombela**  
**AED/LINKAGES**

#### **I. MAINTAINING THE WELL CHILD TRAINING\***

(See Annex A: Two page outline of curriculum)

Overall, the outline suggests that this curriculum does a good job of covering the priority preventive practices that frontline health workers must understand in order to improve child health in Zambia. The following are some comments and suggestions for improving the content and balance between the coverage given to different units and topics within them:

##### **A. Unit 2: Beginning life with an adequate birth weight/free of tetanus**

Adequate child spacing is of vital importance for the health of the child and the mother. It allows the mother to build up her nutritional stores before facing the demands of another pregnancy. This introductory session would be a good place to reiterate some basic concepts about child spacing.

Health workers should be in a position to counsel mothers about the importance of not getting pregnant while they are breastfeeding (some 25 percent of mothers stop breastfeeding *too early* because they are pregnant.) Mothers should also be counseled on how birth interval affects nutritional status of the child.

Encouraging mothers to prevent a pregnancy during the first 24 months postpartum (this is a minimum) could also be a concept to integrate into the counseling about maintaining child growth. (This session should be designed not to duplicate material presented in the Maternal Health and Family Planning module but rather to reinforce it and help health workers understand where to integrate Family Planning.)

You may want to consider adding a separate session on birth spacing. This could be done if you condensed the two sessions on anemia contained in this unit (session 3 and session 4). Although

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\* See Annex A. Since the materials we were asked to review are hard to identify and often have no dates, we are attaching copies so you know what we are commenting on.

it is not clear from the outline what will be covered in these sessions, we presume the focus is on supplementation with iron/folic acid tablets. (Anemia is also covered in several other places in the curriculum where concepts of dietary diversification could be addressed.)

**B. Unit 2, Session 2: How to help pregnant women improve their food intake**

Have research and household trials been conducted to provide practical content for this session on how mothers can improve their diets or how health workers can help address the cultural and economic constraints to doing so? If such a situation analysis has not been conducted, USAID should consider doing so.

**C. Unit 3 and Unit 4: Growth monitoring and promotion; Infant and young child feeding**

Merging these two units (GMP and Infant Feeding) into one would help reinforce the message that Growth Monitoring and Promotion should focus on identifying growth faltering and its causes; and improving infant and young child feeding practices. Having separate units continues the problematic thinking of delinking GMP from nutrition counseling.

**D. Breastfeeding appears not to be addressed**

We strongly recommend that at least one session be devoted to exclusive breastfeeding. This session would prepare health workers on how to deal with critical issues related to successful lactation management such as early initiation, positioning, and the baby latching on to the breast. It would also help health workers prevent and manage common lactation problems such as insufficient milk (not enough milk syndrome), breast engorgement, cracked nipples, etc.

**E. Unit 5: Micronutrients**

We recommend that this unit be reconfigured to make it correspond more with the functions of health workers: i.e. dealing with supplementation/fortification cluster in an integrated fashion and putting deworming in a separate cluster.

We suggest that the sessions on improving the dietary intake of vitamin A (unit 5, session 2, and part of session 3) be integrated into the sessions where health workers learn how to advise mothers on their dietary needs (unit 2, session 2) and into the sessions on improving child feeding practices (Unit 4). This will help health workers make counseling on dietary diversification part of their counseling on child feeding and maternal dietary practices. The more the training helps fit the nutrition pieces together in a practical way, the easier it will be for the health worker to counsel mothers.

These adjustments should also free up some time for a time slot for breastfeeding.

## **F. Unit 7, Session 2: Diarrhea**

ORT is not specifically mentioned. Is this an element of the essential health package?

## **II. FLIP CHART: ZAMBIA INTEGRATED HEALTH KIT (DRAFT; NO DATE) (See Annex B for a copy of the flip chart.)**

This flip chart covers a wide range of topics in a general fashion and presents key points of information about what caretakers should do; however it lacks guidance for the health worker on how to address key resistance points. For example, the Safe Motherhood page advises mothers to take iron tablets for protection against anemia, but does not offer tips on how to avoid the unpleasant side effects that women often experience.

Some suggestions on the content:

### **A. SAFE MOTHERHOOD**

The statement about taking iron tablets should be modified to say “Take iron and folic acid tablets. Iron tablets provide protection against anaemia and folic acid provides protection against birth defects” since these are presently dispensed as two separate formulations with a different schedule of administration.

It would also be good to remind women that the iron is taken one to two times daily and the folate is taken once daily. (Verify dosages being used in Zambia.) A discussion question should be added about possible complications from taking iron tablets and how to minimize their usage.

Secondly, during educational talks women should be made aware of the importance and advantages of taking the iron and folic acid tablets.

### **B. KEEPING HEALTHY IN PREGNANCY**

The advice on diet presented here is very general. Women will not have a clear idea, of what a “good” affordable diet based on local foods might look like. It might help to provide one or two examples of a typical low-cost diet. Give concrete examples of what/how much to add to the diet.

There is also no discussion of quantity. We suggest that you add a bullet stating that women need to eat more during pregnancy and lactation (about 300 more calories per day during pregnancy and 500 more calories during lactation). We also suggest adding a discussion question: “What could a woman eat for dinner (or lunch) using readily available foods to give her a good diet?” Can she add a snack during the day? What can she do to increase her food intake?

## C. POSTNATAL CARE - CARING FOR BABY - BREASTFEEDING

We suggest you change the title to “Postnatal Care—Getting Started with Exclusive Breastfeeding.” We have revised this “page” to focus on the importance and advantages of early initiation within one hour of birth, and also to ensure that baby and mother are not unnecessarily separated except for procedures or where medically indicated. The new text and discussion questions follow.

- The mother has just given birth and is breastfeeding her baby.
- The baby should be put to breast within a half-hour of birth (skin-to-skin).
- A newborn baby needs no other food except breastmilk—not even water or gripe water. This is called “exclusive breastfeeding.”
- Giving even one artificial feed can make exclusive breastfeeding fail.

### Discussion Questions

What do you see?  
Are babies given to mothers to breastfeed immediately after birth?  
How long should babies remain with mothers after birth?

- Most babies are able to suckle as soon as they are born, but some babies may not want to suckle. It is still important, however for all babies to be left skin-to-skin with mothers to encourage bonding.
- All mothers should be helped to breastfeed within one hour of birth, or as soon as she is awake after a caesarian section.
- A baby’s suckling reflex is strongest after birth.
- A baby’s suckling will help to contact the womb, thus facilitating the expulsion of the placenta and lessen bleeding after birth.
- Mother’s milk comes in more quickly if breastfeeding is started early and if the baby is breastfed often.
- The first milk, colostrum, is like first immunization—it is rich in substances that protect the baby from diseases.

- Early initiation of breastfeeding also promotes bonding between baby and mother.

**D. LEARNING TO BREASTFEED**

Please note: we suggest adding a “page” to deal with this topic. Please see page 6.

**E. CONTINUING TO BREASTFEED—EXCLUSIVE BREASTFEEDING**

Please note: 98 percent of mothers in Zambia breastfeed but, only 26 percent exclusively breastfeed for up to four months. This page can be a substitute for the current “breastfeeding” page. Please see pages 7 and 8.

**F. BREASTFEEDING PROBLEMS/DIFFICULTIES**

Please note: we are also suggesting adding this “page” to the flip chart. Please see pages 9 and 10.

## LEARNING TO BREASTFEED

### THE IMPORTANCE OF “CORRECT ATTACHMENT” AND GOOD POSITIONING

#### Discussion Question

What is the importance of correct attachment and positioning the baby?

- Good positioning promotes correct attachment.
- The baby should be in a comfortable position to suckle, not twisted.
- If the baby is poorly attached to the breast, she/he may not get enough breastmilk.
- Good attachment prevents sore nipples, cracked nipples, and breast engorgement.

#### Discussion Question

How do you tell if the baby is in a good position or correct attachment?

#### Positioning

- The baby’s body is facing the mother, baby’s stomach to mother’s stomach.
- The baby’s head and body are in a straight line—the baby should not have to turn his head to get the breast.
- Clothes or blankets should not come between the mother and baby.

#### Attachment

- Make sure that baby’s mouth is wide open before bringing the baby to the breast.
- Make the baby open his/her mouth by tickling near the corner of the mouth with a finger or the nipple.
- Make sure that the baby takes most of the areola (the dark area around the nipple) into the mouth—not just the nipple.

#### Check the correct attachment by looking to see that:

- The baby’s **mouth** is wide open
- The baby’s **chin** is touching the breast
- The baby’s **lower lip** is curled outwards
- More of the areola is showing above the baby’s mouth than below

## **CONTINUING TO BREASTFEED**

### **EXCLUSIVE BREASTFEEDING**

#### **Discussion Questions**

Do you know of mothers who exclusively breastfeed?  
Have you heard any mention of exclusive breastfeeding?  
What is exclusive breastfeeding?

- Exclusive breastfeeding means that the baby has no other food or drink but breastmilk—not even a “dummy” or pacifier, sips of water or other liquids.
- Breastmilk has all the food and water the baby needs to grow well and develop.
- Giving the baby water, porridge, glucose water, juices, or other foods during the first six months exposes the baby to a host of infections, including diarrhea, respiratory tract infections, and other diseases.

#### **HOW TO BREASTFEED EXCLUSIVELY**

- Breastfeed often. An infant’s stomach is very small and breastmilk is digested quickly so a baby needs to be fed about 8-12 times in 24 hours.
- Allow baby to breastfeed during the night.
- Breastfeeding often will build up the mother’s milk supply.
- The more the baby feeds, the more milk the mother will have.

## **CONTINUING TO BREASTFEED (page 2)**

### **EXCLUSIVE BREASTFEEDING**

#### **ADVANTAGES OF EXCLUSIVE BREASTFEEDING TO BABY AND MOTHER**

- Breastmilk is the only food a baby needs through the age of six months to be healthy and grow well—it provides all the nutrients at correct proportions.
- Exclusive breastfeeding saves money—the family budget can be spent on the rest of the family.
- Exclusively breastfed babies are protected 14 times more from diarrhoea than those fed on artificial infant formula.
- Exclusively breastfed babies are protected three times more from acute respiratory and ear infections.
- Frequent, exclusive breastfeeding on demand promotes child spacing (if baby is less than six months old and menses has not returned).

#### **Discussion Questions**

How long should a baby be exclusively breastfed?  
At what age are complementary foods introduced?  
How long should a baby be breastfed?

- All women should breastfeed exclusively for six months.
- Introduce appropriate local solid foods at six months.
- Continue to breastfeed for two years and beyond.
- Allow the baby to suckle as long as it is hungry.
- Continue to breastfeed even when the baby is sick.
- Well-fed babies will wet napkins at least six times in 24 hours.

## **BREASTFEEDING PROBLEMS/DIFFICULTIES**

### **Discussion Questions**

What are some of the problems mothers might face in practicing exclusive breastfeeding?  
How could these problems be resolved?

#### **EARLY PROBLEMS**

Full breasts, breast engorgement, sore nipples, cracked nipples, “my nipples are flat/long,” “my breast leaks milk,” “blood in my milk,” baby refusing breasts, not enough milk, baby crying

#### **LATE PROBLEMS**

Blocked ducts, mastitis, breast abscess, cracked nipples, baby not gaining weight, ill baby, ill mother, cleft palate, not enough milk, crying baby, going back to work.

#### **HOW TO MANAGE THE PROBLEMS/DIFFICULTIES**

During the first few weeks of breastfeeding can be a difficult time, especially for a mother and her first baby. Problems and difficulties may be prevented by giving mothers the support and counseling they need in the first few days.

##### **Full and engorged breasts**

- Let mothers breastfeed their babies immediately after delivery without restrictions.
- Make sure baby suckles in a good position from the first day.
- Do not give any prelacteal feeds.
- Help mother to express the milk if baby cannot suckle effectively because of engorgement.
- Continue to breastfeed the baby.
- Use hot fomentation e.g. warm shower/bath, warm towel before or during expression.
- Continue to express as often as necessary to make the breast comfortable.

##### **Sore and cracked nipples**

- Correct the attachment (latch-on) and position to the breast.
- Leave the nipple and areola in air to dry after feeding.
- Smear a little milk on the breast to heal cracked nipples.
- **Do not use medicated lotions or creams.**
- Express breastmilk until cracked nipples are healed.
- Do not feed on the cracked nipple until it's healed.

## **BREASTFEEDING PROBLEMS/DIFFICULTIES (page 2)**

### **Not enough milk**

- This is cited as a major reason why mothers stop breastfeeding.
- Almost all mothers can make enough breastmilk for the baby's needs until the age of six months.
- Talk to the mother to find out why does she think she does not have enough breastmilk.
- Some of the possible reasons are that the baby's not correctly attached or positioned to the breast therefore not stimulating the breast to produce enough milk; less frequent feeds; baby not well; etc.
- One way to check that the baby is getting enough milk is to count the number of wet nappies in a day. If the baby has a wet nappy six times or more a day, s/he is getting enough breastmilk.
- The baby should be fed at least 8-12 times in 24 hours.

## **G. NUTRITION FOR SMALL CHILDREN AGED 6-12 MONTHS AND CARING FOR THE CHILD UNTIL TWO YEARS OLD**

The way information on infant and child feeding is broken up in these two pages is confusing, since guidelines on feeding the 6-12 month old are presented in different ways on each page. We suggest that you present the information sequentially, using the same age groupings used in the IMCI food box and in the PHP training module on the well child.

The information in the flip chart should pick up the same themes. In fact, could use the same language.

(Note to PCS: Please obtain the latest version of the "food box messages" from BASICS.)

## **H. CARING FOR THE CHILD**

We suggest that you change the title from "Caring for the Child" to "Tips for Feeding and Caring for the Child." We also suggest that the section on "Tips for Feeding" in the "Nutrition for Small Children 6-12 Months" and the "Caring for the Child" pages be consolidated on the "Caring for the Child" page.

## **I. VITAMIN A SUPPLEMENTATION**

We suggest that you replace the second discussion question with the following: *How can you fix these foods so that they can be eaten by a six month-old child?*

## J. UNDERSTANDING THE GROWTH CHART

We have not reviewed this carefully, but would suggest a modification to this sentence: "Discuss the weight of your child with the health worker." Replace this with "Make sure you obtain advice on how to improve your child's growth or feeding during illness and convalescent periods if the child is not gaining weight as rapidly as he/she should."

Mothers should be encouraged to seek special tips from health workers on how to get the child to eat during illness when he/she loses appetite.

## K. FAMILY PLANNING METHODS FOR CHILD SPACING

We like the way this is divided up into categories according to the user. This will make it easier for potential users to make a good choice. The "spacers" and "limiters" ideas are particularly helpful. We would therefore, suggest that this thinking be carried through to the "Family Planning for Mothers Breastfeeding" page.

It would be more helpful if the table were divided into two sections. Spermicides and LAM, for example, are more appropriate for "spacers" than "limiters."

Additionally, we wondered why postpartum IUD, injectables, and tubal ligation were not listed under the breastfeeding section. (Other methods not widely available in Zambia, such as the mini-pill, are listed.)

Any methods suitable for breastfeeding women that are listed elsewhere should be included in this section. The **first choice** methods for breastfeeding women are LAM, condoms (female and male), diaphragms, spermicides, IUDs, vasectomy and tubal ligation; **second choice methods** are progestin-only, mini-pills, injectables, and implants. The **third choice** for breastfeeding women are methods containing estrogen—combined oral contraceptives and combined injectables.

### **Information Cards -- Zambia Integrated Health Kit (draft, May 30, 1997)**

The text is identical to the "information" sections contained in the **Zambia Integrated Health Kit Flip Chart** that we commented on above. The suggested changes, therefore, also apply to this document.

ANNEX E

USAID-UNICEF Memo of Understanding  
(Draft developed with participation of LINKAGES team)  
**MEMORANDUM OF UNDERSTANDING--UNICEF-USAID  
ZAMBIA  
INTERAGENCY COLLABORATION ON NUTRITION  
INPUT OF USAID-LINKAGES PROJECT**

Memorandum of Understanding  
between  
UNICEF/Zambia and USAID/Zambia  
for  
Interagency Collaboration  
on  
Nutrition

**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**  
**UNICEF/ZAMBIA AND USAID/ZAMBIA**  
**FOR**  
**INTERAGENCY COLLABORATION ON NUTRITION**

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**1. INTRODUCTION**

The Government of Zambia is committed to improving nutritional status of the population in general and of children and women in particular. This is reflected in the national goals for children to be achieved by the year 2000 given in the National Programme of Action (NPA) for children. The specific goals directly related to nutrition under the Maternal and Child Health (MCH) and the Food and Nutrition Sector Programmes are:

- reduction of moderate and severe malnutrition among children by 25%;
- reduction of infant mortality rate from 108 to 65/1000 and under-five mortality rate from 192 to 100/1000;
- reduction of maternal mortality rate by 50% from the current level of 202 per 100,000 livebirths;
- reduction of total fertility rate from 6.5 to 5.4.
- improvement of health and nutritional status of females of child bearing age;
- reduction of the incidence of low birth weight;
- reduction of the prevalence of iron deficiency anaemia;
- elimination of vitamin A and iodine deficiency disorders;
- achievement of exclusive breastfeeding of 6 months;
- promotion of appropriate improved weaning practices;
- creation of awareness about household food security (HFS) and nutrition.

Government (NFNC,CBOH) works with partners to achieve its nutrition objectives. These include Non-Governmental Organisations (NGOs), the private sector, donor organisations and communities. Effective coordination of the activities of major players is needed for maximum impact.

## 2. PURPOSE

- 2.1. There are areas of overlap in the interventions and activities of UNICEF/Zambia and USAID/Zambia in the field of nutrition. This memorandum defines interagency collaboration on nutrition between UNICEF/Zambia and USAID/Zambia
- 2.2. The purpose of the interagency nutrition collaboration is to rationalize use of resources of the two agencies to effectively support and strengthen the capacity of the Government of Zambia to improve sustainable child nutrition and survival. The main areas of intervention of the two agencies that require collaboration focus on the NPA goals the government is pursuing and cover the specific areas of Breastfeeding, Lactational Amenorrhoea Method (LAM), Baby Friendly Hospital Initiative (BFHI), Complementary Feeding, Integrated Management of Childhood Illnesses (IMCI), Maternal Nutrition and Micronutrients. The timeframe for the agreement is from October 1997 to December 1998.
- 2.3. UNICEF/Zambia through its Programme of Cooperation with the Government of Zambia for the period 1997-2001 has identified interventions to improve nutrition under the Primary Health Care and Nutrition Programme. This focuses on support to development of national nutrition policy and guidelines, strengthening of health reforms, exclusive breast-feeding for 6 months and appropriate complementary feeding from 6 to 24 months, BFHI, community Growth Monitoring and Promotion (GMP), prevention and control of childhood illnesses (EPI,CDD), integrated management of childhood illnesses (IMCI), micronutrient interventions (vitamin A, iodine and iron), and maternal nutrition. The strategy is to strengthen the capacity of government, NGOs, and communities in setting realistic nutrition goals, take action, evaluate the action and effect necessary changes (the triple A cycle). Specically, the support is to strengthen District Health Management Teams/Hospitals to act on malnutrition.
- 2.4. USAID/Zambia will make an essential contribution towards the nutrition goals in Zambia through its central projects. These are **BASICS** (Basic Support for Institutionalizing Child Survival), **OMNI** (Opportunities for Micronutrient Interventions) and **LINKAGES**. **BASICS** expertise and interest in nutrition intervention lies in the Integrated Management of Childhood Illnesses (IMCI), community Growth Monitoring and Promotion (GMP) and Complementary Feeding. **OMNI** has expertise and interest in micronutrients and will provide assistance towards reduction and elimination of vitamin A, iodine and iron deficiencies in Zambia. **OMNI** works through specialized partners including **PAMM** (Program Against Micronutrient Malnutrition) which provides programatic assistance. **MANOFF** is part of **OMNI** and **BASICS** and provides assistance in social science and qualitative methods. **John Hopkin University (JHU)** is also part of **OMNI** and provides technical assistance in analyses (e.g. retinol analyses). **LINKAGES** expertise and focus is in breast-feeding, BFHI, lactational amenorrhoea method (LAM), complementary feeding and maternal nutrition.

### 3. BACKGROUND

- 3.1. Malnutrition is a serious public health problem threatening sustainable socio-economic development of Zambia. Underlying this problem is widespread poverty, especially since implementation of stringent economic measures (SAP) began in 1991. By 1994 it was estimated that over 70% of the population in Zambia were so poor that they were unable to afford an adequate diet.

It is estimated that 12% of babies born in Zambia have a low birth weight, putting them at a higher risk of early death. Over half of children under 5 years in Zambia suffer from chronic protein-energy malnutrition (PEM) and a quarter are underweight. Stunting starts early, at about 3 months and is associated with poor feeding practices and illness. Only 28% of children are exclusively breastfed at 4 months (DHS,1997). Vitamin A deficiency exists throughout the country, although incidence is particularly high in Luapula Province. It is estimated that 25-50% of children are vitamin A deficient (UNICEF,1997). Iodine deficiency ranges between 50-80% of school children, with highest incidence in Southern (Gwembe), Northern (Kaputa) and North-Western (Kasempa) Provinces. Anaemia affects 34% of women and 15% of children under 14 years.

Infant and child mortality in Zambia are high (109/1000 livebirths and 98/1000 livebirths respectively in 1996 (DHS,1996). Malnutrition contributes to over 50% of all infant and child deaths in Zambia.

There are many and varied causes of child malnutrition in Zambia. These include poor maternal nutrition, inappropriate infant feeding practices, high incidence of childhood illnesses, and poor micronutrient status.

- 3.2. UNICEF support to government efforts to address malnutrition within its Programme of Cooperation (1997-2001) is through capacity building for Health Reforms, and child nutrition and maternal and adolescent health projects within the Primary Health Care and Nutrition Programme. The main thrust in nutrition intervention is in the following areas: maternal nutrition, breastfeeding (exclusive for 6 months), Baby Friendly Hospital Initiative (BFHI), complementary feeding (from 6-24 months), community growth monitoring and promotion (GMP), vitamin A, iron and iodine deficiencies and the integrated management of childhood illnesses (IMCI).
- 3.3. USAID supports integrated management of childhood illnesses and community growth monitoring and promotion through BASICS; supports development of capacity to monitor vitamin A, iodine and iron deficiencies through national sample surveys through OMNI; supports breast-feeding, lactational amenorrhoea method (LAM) and complementary feeding through LINKAGES.

#### 4. EXPECTED OUTCOMES

- 4.1. Technically sound and nationally accepted guidelines, protocols, training and monitoring will have been established and used by government, UNICEF, USAID, NGOs, the private sector and communities. This will focus on:
  - a) baseline surveys on vitamin A and iron deficiency anaemia; expansion of supplementation of vitamin A and iron under the MCH Programme; fortification of locally produced salt with iodine; fortification of sugar with vitamin A; fortification of other commonly consumed foods, such as maize meal including research into feasibility of fortifying and monitoring of vitamin A, iron and iodine deficiencies.
  - b) training in BFHI of all hospital/maternity staff; certification of all hospitals/maternity facilities as "baby friendly"; quality assurance system of BFHI.
  - c) research in infant feeding practices in main regions of the country and socio-economic groups.
- 4.2. The coverage of and access of the nutrition components of the essential package will have been expanded and increased in all districts.
- 4.3. Establishment of community growth monitoring and promotion (GMP) activities in pilot communities in Kalomo, Livingstone and Sinazongwe Districts of Southern Province and Mpongwe and Kitwe Districts on the Copperbelt. Integration of community GMP within PHC activities. Community health promoters trained in the promotion of nutrition and the nutritional management of childhood illnesses at community and household level.
- 4.4. Monitoring of the nutrition situation based on the nutrition component of the essential package will have been institutionalized. The scope of FHANIS and the HMIS will have been expanded to include key indicators on breast-feeding, LAM, complementary feeding, maternal nutrition and micronutrients). Information on the minimum nutrition package being used to plan, implement and evaluate action for improvement of child growth and nutrition at district, community and household levels. Advocacy at national, district and community level strengthened due to availability of relevant information.
- 4.5. Improved management of childhood illnesses and clinical malnutrition resulting in reduction in case fatality and improved referral of malnourished children from hospitals/clinics to the community.

5. ACTIVITIES FOR OCTOBER 1997-DECEMBER 1998

UNICEF	USAID
<p>A. National Nutrition Strategy:</p> <ul style="list-style-type: none"> <li>-TA for development of nutrition policy and National Plan of Action for Nutrition;</li> <li>-Programme support to NFNC, FHANIS and CBOH (basket of funds for district activities).</li> </ul>	<p>A. National Nutrition Strategy:</p> <ul style="list-style-type: none"> <li>-TA for strengthening of the Food and Drug Act.</li> </ul>
<p>B. BFHI:</p> <ul style="list-style-type: none"> <li>-Guidelines/Protocols and</li> <li>-Training of trainers in lactational management and counseling (1 per region);</li> <li>-Support in-service training of hospital staff on BFHI;</li> <li>-Monitoring and external assessment of 20 BFHI facilities per year (quality assurance);</li> <li>-Procurement and framing of hospital plaques for BFHI (certification);</li> <li>-IEC materials.</li> </ul>	<p>B. BFHI:</p> <ul style="list-style-type: none"> <li>-Training of Hospital/ maternity staff in lactational management;</li> <li>-IEC materials/distribution to maternity facilities.</li> </ul>

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- C. Breast-feeding Promotion:
- Support to printing of national policy on breast-feeding practices;
  - Printing the Zambia Code of Marketing of Breastmilk Substitutes;
  - Capacity building for national programme managers (local and regional training and meetings);
  - Support training of 2 national staff in Code of Breast Milk Substitute Marketing legislation;
  - Quarterly meetings of the National Breast-feeding Taskforce;
  - In-service training of regional TOT, health workers and mother support group leaders in breast-feeding counseling;
  - Training of mother support groups in lactational management and peer counseling (LLL, BAZ, NFNC);
  - Support Breast-feeding Week Celebrations;
  - Consensus building on HIV infection and breast-feeding;
  - Research on role of breast-feeding in infant/child survival;
  - Support monitoring breast-feeding practices through national sample surveys;
  - IEC on breast-feeding, including popular theatre.

- C. Breast-feeding and LAM:
- TA to develop and review policies, technical guidelines, protocols and training curriculum on breast-feeding and LAM;
  - TA to harmonize policies, guidelines, protocols, IEC and training curriculum related to exclusive breast-feeding and LAM;
  - Support development of breast-feeding/HIV/AIDS guidelines for counseling to complement the HIV/AIDS and Infant Feeding Policy, and those governing orphans;
  - TA to strengthen the coordination mechanisms to link organizations active in breast-feeding/LAM/complementary feeding to those implementing the new integrated health packages on Maternal Health and Family Planning, STD/HIV/AIDS/TB, and Integrated Prevention;
  - TA to support capacity building (Training of Trainers in LAM and Lactational Management);
  - Support operation research to develop and test high quality, affordable breastmilk substitutes (home or community prepared); test counseling strategies on BF/HIV/AIDS which will support informed choice; help HIV + mothers reduce the risks of alternative feeding
  - Monitoring of breastfeeding practices/counseling;
  - IEC materials; feeding modes

D. Integrated Management of Childhood Illnesses (IMCI):

- Guidelines/Protocols for management of childhood illnesses and promotion at community level;
- Adaptation and implementation of WHO guidelines for management of severe malnutrition;
- Support to the implementation of ICMI (Training of health staff, Supplies);
- IEC materials.

feeding modes while at the same time maintaining a positive climate for breast-feeding among the large majority of HIV- mothers;

- Support for community-based activities to improve delivery of BF/LAM in an integrated service delivery environment (with BASICS);
- TA to develop IEC strategies to improve BF/LAM/CF practices in the context of the national IEC Strategy and Implementation Plan for Health;
- Support mass media and print media to promote BF/LAM/CF and other FP methods for breast-feeding women (with PCS, PSI, JSI);
- TA to develop indicators and monitoring mechanisms for breastfeeding (working with HMIS)

D. Integrated Management of Childhood Illnesses (IMCI):

- Adaptation of IMCI guidelines (TA);
- Training of health staff;
- Monitoring of IMCI practices in health facilities;
- IEC materials.

<p>E. Community Growth Monitoring and Promotion (GMP):</p> <ul style="list-style-type: none"><li>-Guidelines;</li><li>-Community based child growth promotion in Southern and Luapula Provinces and Mpongwe District;</li><li>-Support to revision and printing of CCC/other support materials to include new developments in IMCI and breast-feeding;</li><li>-Training, equipment and evaluation in pilot communities;</li></ul>	<p>E. Community Growth Monitoring and Promotion (GMP):</p> <ul style="list-style-type: none"><li>-TA integration community GMP with other PHC activities;</li><li>-Support to community GMP activities in pilot district (Kitwe).</li></ul>
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<p>F. Complementary Feeding and Young Child Growth Promotion:</p> <ul style="list-style-type: none"> <li>-Pre and in-service curriculum;</li> <li>-Support for incorporation of complementary feeding with breast-feeding training for health and mother support groups;</li> <li>-Training of MCH staff, CHWs and TBAs in counseling on complementary feeding;</li> <li>-Education of mothers and child carers;</li> <li>-Training of mothers and child carers;</li> <li>-Training of mother support groups in complementary feeding;</li> <li>-Monitoring of weaning practices;</li> <li>-IEC materials;</li> <li>-Support to annual nutrition and child survival symposium;</li> <li>-Support for formative research on child feeding practices;</li> </ul>	<p>F. Complementary Feeding and Young Child Growth Promotion:</p> <ul style="list-style-type: none"> <li>-TA for research in appropriate region-specific complementary foods;</li> <li>-Region-specific guidelines on complementary feeding practices;</li> <li>-Support production and distribution of IEC materials.</li> </ul>
<p>G. Maternal nutrition:</p> <ul style="list-style-type: none"> <li>-Guidelines;</li> <li>-Monitoring at ANC and PNC;</li> <li>-Education of communities on the nutritional needs of women;</li> <li>-IEC materials.</li> </ul>	<p>G. Maternal nutrition:</p> <ul style="list-style-type: none"> <li>-Support to nutritional status (iron deficiency anaemia and vitamin A deficiency) of pregnant and lactating women;</li> <li>-IEC materials.</li> </ul>



**H. Micronutrients:**

- Support for development of policy on micronutrient deficiency control/ policy on fortification (TA, MD);
- Programme support to NFNC, MOH,FDL, for field costs;

**Vitamin A Deficiency Control:**

- Printing of vitamin A supplementation protocol and booklet;
- Support meetings of the national technical committee on VAD;
- Training of health staff in proper administration of capsules;
- Provision of vitamin A capsules to the EDP/NID;
- Monitoring of vitamin A supplies and distribution among beneficiaries (lab. supplies, monitoring visits, TA);
- Sugar fortification (equipment);
- Fortification of maize meal (TA, Taskforce meetings, national workshop with millers, trials at hammermill level(UNICEF/MI));
- Support research of role of vitamin A supplements in mother-child transmission of HIV.

**Iron Deficiency Anaemia Control:**

- Contribute support for national IDA survey and dissemination of findings;
- Monitoring of iron and folic acid supplementation;
- Formative research on improving delivery iron/folate supplementation programme;
- Support NFNC's participation in regional consultation on nutritional anaemia (November 1997).

**H. Micronutrients:**

- Support a food frequency and consumption survey (TA, operational costs).
- Explore potential of social marketing of iron/folate tablets and develop a marketing plan.

**Vitamin A Deficiency Control;**

- National survey on vitamin A (NID) and follow-up (TA, operational costs);
- Support to national strategy of vitamin A supplementation as part of NID (TA, supplies of vitamin A capsules);
- Support to sugar fortification (TA for development of sugar fortification regulation and strengthening of the Food and Drug Act);
- Support study tour to Guatemala for Zambia Sugar Company to review fortification technologies;
- Support market analysis survey of sugar market and distribution chain (TA);
- Development of appropriate quality assurance or quality control system for sugar fortification programme (TA);
- Support national workshop to initiate implementation of the quality assurance/quality control system;
- Support a regional workshop (6 countries) to discuss results of Zambia Sugar fortification.

**Iron Deficiency Control:**

- Support development and adoption of survey instrument,

<ul style="list-style-type: none"> <li>-Training of TBAs and ANC and maternity staff on prevention and control of iron deficiency anaemia;</li> <li>-IEC materials.</li> </ul>	<ul style="list-style-type: none"> <li>-Facilitate analysis of survey data;</li> <li>-Support report writing and dissemination;</li> <li>-Support for development of District level plans for anaemia reduction based upon results of district-level anaemia assessment Survey (DAAS) model;</li> <li>-Development and adoption of survey instrument, methodologies and protocols for DAAS;</li> <li>-Support to DAAS;</li> <li>-TA to district planning teams in development of district health plans to reduce anaemia;</li> <li>-IEC materials.</li> </ul>
<p><b>Iodine Deficiency Control:</b></p> <ul style="list-style-type: none"> <li>-Support to meetings of the technical committee on IDD;</li> <li>-Support to initial fortification of local salt in Kasempa and Kaputa (TA, equipment and quality control);</li> <li>-National monitoring of IDD prevalence and salt iodine levels by NFNC, FDL, FHANIS and other surveys (iodate test kits);</li> <li>-Training of school teachers, health staff and other monitors in monitoring salt iodization and supplying them with test kits;</li> <li>-IEC strategy on iodated salt</li> </ul>	<p><b>Iodine Deficiency Control:</b></p>

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## 6. FINANCIAL IMPLICATIONS

Estimated budget:

UNICEF  
USAID  
Total

## 7. ANNUAL WORKPLAN AND COORDINATION

- 7.1. The UNICEF Project Officer (Nutrition) will work with the USAID Nutrition Adviser and NFNC and CBOH to coordinate assistance given in the field of nutrition to the government and NGOs by the two agencies. This will entail setting work agendas; establishing appropriate professional contacts within and outside the country; facilitation of organization of programme activities; organizing and managing the logistics and financial management for meetings and workshops and assuring that all activities are within GRZ, UNICEF and USAID country agreements.
- 7.2. The UNICEF Project Officer (Nutrition) and the USAID Nutrition Advisor will be responsible for all arrangements for TA to specific programmes as appropriate provided by their respective agencies. They will ensure that the technical input and follow through of their assistance is consistent with and on schedule with the MOU and annual plan.
- 7.3. This MOU will be supported by an annual workplan jointly reviewed on a quarterly basis. The workplan will define the shared and individual responsibilities of USAID and UNICEF for specific activities.
- 7.4. The annual workplan will be reviewed monthly by GRZ (NFNC, CBOH) UNICEF, USAID and relevant NGOs to ensure implementation with appropriate adjustments.

## 8. RESPONSIBLE PERSONS

UNICEF:

- Country Representative
- Head of Health/Nutrition Section
- Project Officer (Nutrition)\*

USAID:

- Country Director
- Health, Population and Nutrition Director
- Senior Policy and Technical Advisor/Nutrition Advisor\*