

PD-ABU-070

**NUTRITION COMPONENTS OF HEALTH:
THE NEED FOR IMPROVED NUTRITION
COUNSELING AT THE HEALTH
CENTER IN ZAMBIA**

September 25 to October 30, 1997

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ACRONYMS

BASICS	Basic Support for the Institutionalization of Child Survival
BFHI	Baby-friendly Hospital Initiative
CBoH	Central Board of Health
IMCI	Integrated Management of Childhood Illness
LAM	Lactational Amenorrhea Method
MOU	Memorandum of Understanding
NFNC	National Food and Nutrition Commission
OMNI	Opportunities in Micronutrient Initiative
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

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EXECUTIVE SUMMARY

The purpose of this portion of my trip was threefold: to explore strategies for improving nutrition counseling at the health center, to support the planning of the IMCI *foodbox* and accompanying IMCI modules, and to assist with the preparation of a memorandum of understanding (MOU) between UNICEF and USAID for the implementation of nutrition-related activities.

Nutrition counseling at the health center

The counseling provided in child nutrition is weak in both the preventive and the curative portions of child health service delivery. Interviews with health workers and observations at the health centers reveal several factors that influence the quality of counseling at the health center: (1) almost all of the health workers complain about the large client/health worker ratio which, they say, leaves them little time to counsel mothers about child feeding; (2) lack of consistent counseling skills—some health workers are obviously more comfortable and skillful than others in providing counseling within similar clinic conditions; (3) training in counseling is weak; (4) those who do receive some training have little follow up and support after the training; (5) small waiting areas in some clinics add to the sense of “overcrowding”; and finally, (6) an uneven spread of clients throughout the day, leading to higher congestion in the mornings than in the afternoons. Operations research for improving counseling at the health centers will need to address the factors contributing to poor performance. The countrywide reorganization of health care staff makes this an inconvenient time to conduct operations research, since widespread staff re-assignment is expected. A task force will be convened next year to organize operations research activities after the re-organization is completed.

Revisions in the feeding recommendations in IMCI

The feeding recommendations (*foodbox*, Appendix A) provided in the integrated management of childhood illness (IMCI) are designed to help health workers provide appropriate counseling to mothers as they attend to the children in the clinic. Revisions discussed for the current *foodbox* include increasing the list of foods mentioned in the recommendations; providing more detail on foods fed between main meals (snacks are often treated casually by some care-givers, but are important to children’s nutrient intake); removing qualifiers from the recommendation to breastfeed exclusively for the first six months of life; and finally, during training, nutrition counseling should be presented as a component of the treatment plan for the child.

Memorandum of understanding on nutrition-related activities

A draft memorandum of understanding (MOU) between USAID and UNICEF was prepared by a consultant, in close consultation with the NFNC. The MOU incorporated the plans of action of the NFNC, UNICEF, and the USAID-funded BASICS, OMNI, and Linkages projects. The memorandum which detailed interventions in breastfeeding, complementary feeding, and the control of micronutrient deficiencies, was to be finalized through further discussion amongst UNICEF, USAID, the CBoH, and NFNC.

PURPOSE OF THE TRIP

The following three tasks were part of a larger scope of work for the trip that took place from September 25 to October 30, 1997.

- ▶ Support planning of operations research to improve counseling by staff of the family health corner and/or of the well-child clinic in one or more large urban health centers.
- ▶ Support planning of final revision of the IMCI *foodbox* and accompanying IMCI modules.
- ▶ Contribute to the USAID/UNICEF MOU discussion on nutrition activities in Zambia.

BACKGROUND

The trip was part of continuing efforts to help strengthen the delivery of the nutrition components of health in the ongoing Zambian health reforms. Previous evaluations of nutrition counseling provided by health workers have found it to be weak, even among those health workers recently trained in IMCI. There is a crucial need to strengthen counseling, since a significant proportion of children become malnourished during the first two years of life.

As part of adapting IMCI materials for use in Zambia, feeding recommendations (the *foodbox*, Appendix A) have been developed based on research in peri-urban Lusaka. More detailed, but essentially similar, recommendations resulted from later research in the Ndola rural area. After a one year period of implementation of IMCI in Zambia, the adapted IMCI materials, including the nutrition components, are being reviewed for revision to incorporate the lessons learned over the period.

Since UNICEF and USAID are the major supporters of nutrition-related activities in Zambia, it has been decided that a memorandum of understanding (MOU) between the two agencies would clarify the areas of support to be provided by each agency and thus maximize the use of the available resources.

ACTIVITIES

- ▶ **Support planning of operations research to improve counseling by staff of the family health corner and/or of the well child clinic in one or more large urban health center.**

Past and recent reviews of the performance of health workers at the health centers find that a significant number of them poorly perform the assessment of feeding, as well as the counseling

that should be associated with it, and many do not perform it at all. Even those recently trained in IMCI have not distinguished themselves in large numbers when it comes to counseling. Observation of the activities at the well-child clinics also show a similar lack of counseling.

To gain some understanding of the constraints the health workers face in counseling, we (a nutritionist from the NFNC, the BASICS child health coordinator, and I) visited two busy health centers in Lusaka and talked to the staff at the Maternal and Child Health section (where well-child clinics are conducted). The familiar report from both health centers was that only a very small staff is available to see hundreds of children during a morning session at the under-5 clinic. For example, in Chawama Health Center, the staff reported that a team of 3 nurses (2 family health nurses and 1 enrolled nurse) attend 300-400 children a day at the well-child clinic—weighing and immunizing the children. The staff were not able to state clearly what guides their decisions in counseling.

The facilities at the Chawama Health Center appear spacious when compared to some other health centers, but even it is quite crowded when filled with hundreds of women and children. In Kamwala Health Center, the space situation is worse. Mothers and their children are crowded in a small open courtyard, standing and waiting for children to be weighed. In fact, Kamwala staff report that the lack of physical space forces them to hold the prenatal and well-child clinics on separate days (twice a week and three times a week respectively). Interestingly, new construction observed at that health center is reported to be for a “small hospital” to cater for in-patients. The family health corner in that clinic is wedged tightly between the records station and a screening room. The attendant there weighs sick children, immunizes those who need it, and counsels child care-givers about the use of oral rehydration therapy. The hours for prenatal and well-child clinics in the health centers are generally in the morning only, from 7:30 or 8:00 am until 12 or 12:30 pm. Consultations for the sick continue in the afternoon, but the number of clients in the health centers is generally much smaller than in the morning.

It has sometimes been suggested that sick children requiring feeding counseling could be referred to the well-child section of the clinic for counseling. It does not appear at this time that the nurses at the family health corners or the well-child clinics are in a position to provide effective feeding counseling for the sick, as well as the healthy children. In the past few months, Chawama Health Center has acquired a nutritionist to whom children are referred for counseling, providing a model situation that could be tested elsewhere (i.e., a specially trained person who can provide feeding counseling and take the pressure off other staff). Unfortunately, it appears that his time during the clinic is taken up by the more seriously malnourished children who are sent to him for counseling and follow up. He is unable to provide the individual counseling that might *prevent* the currently healthy child under 2 years of age from becoming malnourished, a far too common occurrence.

The following summarizes the constraints that appear to hamper effective feeding counseling at the busy urban health centers:

- *Inadequate training:* Counseling has traditionally not held a prominent place in the training of health staff.
- *Lack of clear guidelines on counseling:* Health workers often seem vague when asked how they make their decisions about counseling. There are inadequate guidelines to help them decide what actions to take when they see a child. Even in the IMCI training, in which some counseling is taught, the health workers appear to dispense with that aspect of care when they feel they do not have adequate time.
- *Lack of supportive supervision and continuing education on the job:* After initial training, there is not an effective system of support for the health worker to help build confidence and improve skills further.
- *Large client/staff ratio:* “Congestion” at the clinic is often cited by the health workers as a constraint to counseling. Given the large number of clients and the small number of providers, there is a tendency for providers to merely try to get through the mass of waiting people.
- *Lack of physical space:* For some of the clinics, the “congestion” is as much related to the inadequacy of the physical space in the waiting areas as to the large number of clients. In some clinics there is not even adequate seating for the waiting mothers. The sight in some of the clinics of a crowd of mothers on their feet with their babies in their arms waiting for service can be expected to influence the amount of time the health worker feels he/she can spend with a client.
- *Clinic organization:* There appears to be an unwritten understanding that no matter how many clients there are, all of them have to be attended to by 12:00 or 12:30 pm, sometimes earlier. Although the health centers have afternoon activities as well, the difference between the number of clients in the morning and in the afternoon is striking. A more even distribution could possibly ease some of the crush of people and the feeling of pressure on the staff. Any change in clinic organization will have to be accompanied by public education to make clients feel welcome in the afternoons.

These constraints suggest some of the areas where new approaches could be directed in order to facilitate counseling. Training and the provision of guidelines will be addressed in the health center staff re-training materials now being developed. Clinic reorganization, adequate space and seating in some of the clinics, and supervision are issues that require discussion by the administrators and service providers and that need long-term solutions. One approach to closer support supervision that may be tested is the training of the nurses in charge of the health centers to be the on-site support for the health workers. The possibility of training some community women as peer counselors also needs discussion and testing.

A task force is needed to plan for operations research into improving counseling, but could not be convened during this trip. The staffing reorganization currently taking place in the country makes this an inappropriate time to test new approaches, since there may be significant changes in personnel at the beginning of next year. Early in 1998, with Ms. Beatrice Kawana of the NFNC as a contact person, the issue of testing some new approaches to counseling will be followed up.

► **Support planning of final revision of the IMCI *foodbox* and accompanying IMCI modules.**

BASICS Child Health Coordinator Dr. Abdikamal Alisalad was in the process of revising the Zambia-adapted IMCI materials after more than a year of IMCI implementation. He will discuss the changes with the IMCI committee in Zambia before they are finalized. I discussed with him changes that could be made in the nutrition components (the *Feeding Recommendations in Health and in Illness*, i.e., the *foodbox*, and the *Counsel the Mother about Feeding Problems* section, Appendix B).

i) *More detailed feeding recommendations?*

There are two versions of the feeding recommendations; the first was produced as a result of the household-based research conducted in peri-urban Lusaka, and the second after the research in the rural Ndola District. Although the recommendations from the rural and peri-urban areas are similar in essentials, the second set of recommendations has more foods listed and is more detailed in regard to the feeding of snacks. I explained that the research in the rural area had prompted the inclusion of foods such as pounded *kapenta* (tiny fish), avocado, and eggs, to be added to the porridge because some rural mothers (but not urban mothers) had tried them (a few rural households that keep chickens had been willing to use some of the eggs for the child). On the other hand, the research team had observed poor quality of care exhibited by some mothers, evident in some unwashed children (probably partly due to lack of water), and the very casual way snacks, such as fruit, corn, and other foods, were offered to very young children. The recommendations attempt to address the need to pay more attention to feeding. There reportedly has been some unresolved discussion among the IMCI committee members about whether to adopt the more detailed recommendations (Appendix B) or keep the original *foodbox* (Appendix A) already in use. Of great importance, though, is the need to help the health workers to understand the general principles underlying age-appropriate feeding practices, to be informed of the foods available in their localities, and to apply these principles to counseling. These are issues to be addressed in the training and reinforced during follow up after the training.

ii) *Recommendations for infants under 6 months of age.*

We also discussed a recurring debate of whether or not the feeding recommendation for infants under 6 months should include actions to be taken when the child is not gaining weight through exclusive breastfeeding. Alisalad explained that the issue of what to do when the child is not gaining weight is dealt with in the IMCI training and, therefore, does not need to appear in the recommendations. In discussions at the NFNC, it was pointed out that the consensus within the nutrition community is that the feeding recommendation appearing in the *foodbox* should be

limited to the ideal recommendation with no qualifiers. It was then suggested that the *Counsel the Mother about Feeding Problems* sheet (Appendix C) may be an appropriate place to address the issue of what to do when the infant is not gaining weight through exclusive breastfeeding. If that suggestion is adopted, then the counseling provided on that sheet would include a statement similar to—

If the child is under 6 months and is exclusively breastfed and not gaining adequate weight:

- first check to make sure breastfeeding is being properly practiced and help correct any improper practices
- if inadequate weight gain continues, advise the mother to add, once or twice a day, the foods mentioned under the 6-11 months column

Another change discussed with Alisalad was to update the recommended amount of food that infants and young children should be encouraged to eat at various age groups. The following amounts of food by volume were recommended for the specified age groups according to maximum stomach capacity:

6-11 months: 200-250 ml. per serving of food
12-24 months 300-350 ml. per serving of food

► **Contribute to the USAID/UNICEF MOU discussion on nutrition activities in Zambia.**

With both USAID and UNICEF providing support for nutrition-related activities in Zambia, the two agencies have decided to maximize the use of available resources by defining their specific areas of support and coordination through a memorandum of understanding (MOU). In collaboration with the National Food and Nutrition Commission (NFNC) and the CBoH, an MOU between USAID and UNICEF is being developed to outline the roles of each agency. During an initial meeting on September 25, representatives from the NFNC, UNICEF, USAID, and the BASICS and Linkages projects discussed a first draft of the memorandum that had been prepared by a consultant hired by UNICEF. The draft MOU reflected the activities planned by the agencies, as well as by the BASICS, Linkages, and OMNI projects. The stated outputs for the activities, outlined in the draft memorandum, were the guidelines, protocols, training, implementation, and monitoring systems for the following:

- Improved coverage and access to the components of the essential package of nutrition (improved optimal breastfeeding and complementary feeding practices; control of vitamin A, iron, and iodine deficiencies)
- Improved knowledge and implementation of micronutrient deficiency control activities to include baseline information collected on the prevalence of vitamin A and iron deficiencies; fortification of locally-produced salt with iodine; fortification of sugar with

vitamin A; and research into the feasibility of fortifying commonly consumed foods, such as maize meal, with vitamin A

- Establishment of community-based growth monitoring activities in pilot districts in the Southern and Copperbelt districts
- Institutionalization within the HMIS of the monitoring of key indicators on breastfeeding, complementary feeding, LAM, maternal nutrition, and micronutrient deficiency control
- Improved management of clinical malnutrition in health facilities and in the community

At the meeting, the acting director of NFNC expressed the need to strengthen the NFNC through—

- Building staff capacity in specific technical areas
- Improving the NFNC library
- Initiating activities to improve the effectiveness of community-based nutrition groups around the country
- Coordinating the activities of nutritionists not located at the NFNC
- Strengthening the link and coordination between the NFNC and other governmental agencies, such as the Central Board of Health (CBoH)
- Providing support equipment, such as computers and photocopiers
- Refurbishing the IEC studio at the commission
- Strengthening the communication system to produce nutrition education materials for national use

It was decided that the NFNC would work further on the draft and reorganize the various activities under program areas, such as policy development, training, IEC, etc. It was also pointed out that the activities detailed in the draft MOU would have to be prioritized, since it would not be possible to undertake all of them in the 1997-98 year.

Two later drafts of the MOU were produced following more discussion. The activities were arranged, when applicable, under the topics of policy, training, monitoring and evaluation, IEC, and research and advocacy, for the following interventions:

- I. Breastfeeding Promotion, BFHI, and LAM
- II. Complementary Feeding
- III. Growth Monitoring and Promotion
- IV. Integrated Management of Childhood Illness (IMCI)
- V. Vitamin A Deficiency Control
- VI. Iron Deficiency Anemia Control
- VII. Iodine Deficiency Disorder Control

- VIII. Program Support (such as the support of a nutritionist at the CBoH, and procurement of vitamin A capsules)
- IX. Information, Education, and Communication (IEC)

For each activity, the implementing agency, required local and external resources, and collaborating partners were specified (Appendix D).

The NFNC was expected to make the plan of action for 1998 and incorporate the priorities into the final MOU. By the end of the trip, the final discussions regarding the MOU were delayed pending the return of the UNICEF nutritionist who was away on other engagements and was the only person representing UNICEF in the discussions. Further work to complete the MOU is expected to continue and will be available under separate cover.

NEXT STEPS

1. Form a small task force consisting of representatives from the NFNC, the District Health office, and the health centers to discuss which of the proposed approaches (or other approaches) will be tested as an operation research activity to improve nutrition counseling at health centers. (Note that training of the health center staff is scheduled for next year and will have heavy emphasis on counseling. An operations research activity could be built around post-training supervision.)
2. Review the IMCI materials and the MOU before final adoption of the documents.

APPENDIXES

APPENDIX A

**FEEDING RECOMMENDATIONS DURING SICKNESS
AND HEALTH (FOODBOX)**
(currently used in the IMCI)

Feeding Recommendations During Sickness and Health

<u>0 up to 6 months</u>	<u>6 up to 12 months</u>	<u>12 up to 24 months</u>	<u>2 years and older</u>
<ul style="list-style-type: none"> - Breastfeed exclusively at <u>least 8</u> times day and night. - Do not give other foods or liquids (not even water, glucose, or porridge) unless medically indicated. - After the age of 4 months, only if the baby is not gaining weight, add complimentary foods (discussed in the box to the right) once or twice. 	<ul style="list-style-type: none"> - Breastfeed day and night - 8 times in 24 hours - Feed three times a day if breastfed, five times if not breastfed. - Give about three-quarter cup of food (150-180 ml) per meal of : <ul style="list-style-type: none"> - <u>thick</u> porridge enriched with sugar, oil, groundnuts, milk, sour milk or beans, or - <i>nshima</i> (or rice or potatoes) with <u>mashed</u> relish cooked in oil or groundnuts. The soup by itself is not enough. - Between main meals give mashed foods (such as fruit, avocado, beans, <i>mponda</i>), milk or bread. 	<ul style="list-style-type: none"> - Breastfeed as often as child wants. - Feed three times a family foods and snacks between main meals. - Serve child's food separately. Feed at least one cup (about 200 ml) per meal of family foods such as <i>nshima</i> with mashed relish. 	<ul style="list-style-type: none"> - Give family foods such as <i>nshima</i> and relish 3 times a day. - Two time a day between family meals give fruit (such as banana, avocado, orange, mango, guava), <i>samp</i>, fried sweet potato, bread, rice with sugar or oil, egg or beans.

APPENDIX B

**FEEDING RECOMMENDATIONS DURING SICKNESS AND HEALTH
(From Ndola rural area)**

Feeding Recommendations During Sickness and Health (from Ndola area)

<u>0 up to 6 months</u>	<u>6 up to 12 months</u>	<u>12 up to 24 months</u>
<ul style="list-style-type: none"> - Breastfeed exclusively <u>at least 8 times</u> day and night. - Do not give water, traditional medicines, glucose, gripe water, other milks, porridge or any other liquids or foods unless medically indicated. - If the child is not gaining weight <u>and</u> is being breastfed properly, add complementary foods (discussed in the box to the right) once or twice; if not breastfed properly, first correct the breastfeeding problem. 	<ul style="list-style-type: none"> - Continue breastfeeding 8 times day and night - Feed at least three times a day if breastfed, five times if not. Give half to three-quarter cup of food (150-180 ml) per feeding of: <ul style="list-style-type: none"> - <u>Thick</u> porridge enriched with sugar, oil, pounded groundnuts or <i>kapenta</i>, mashed beans or avocado, soya flour, egg, oil, pounded dried caterpillars or green leafy vegetables, or - <i>Nshima</i> mixed with <u>mashed</u> relish of green leafy vegetables, beans, egg, fish, or <u>pounded</u> <i>kapenta</i>, caterpillar, or meat cooked in oil or pounded groundnuts. - Between main meals give other foods, such as fruits (banana, pawpaw, avocado etc.) mango or orange juice, <i>chikanda</i>, <u>mashed</u> pumpkins, beans, groundnuts, cassava, or boiled sweet potato, milk, <i>munkoyo</i>. Enrich the cassava, sweet potatoes, and pumpkins with pounded groundnuts, sugar, milk, or oil whenever possible. <u>Mash</u> these foods as necessary and <u>feed</u> to the child. - Serve and feed child separately in own dish. . 	<ul style="list-style-type: none"> - Continue breastfeeding as much as child wants - Feed at least five times a day one to one and a half cups (200-250 ml) of the following per feeding: <ul style="list-style-type: none"> - <i>Nshima</i> with <u>mashed or pounded</u> relish. Don't feed only the soup. - <u>Thick</u> porridge enriched with one or more of the following: sugar, oil, <u>pounded</u> <i>kapenta</i>, groundnuts, or dried caterpillars, mashed beans, egg, milk. - In between main meals, give other foods such as fruit, <i>samp</i>, boiled cassava, mashed beans or groundnuts, porridge, bun, fritters, pumpkin, sweet potato, rice with sugar or oil. - Serve the child separately and <u>supervise</u> the eating.

APPENDIX C

COUNSEL THE MOTHER ABOUT FEEDING PROBLEMS

► Counsel the Mother About Feeding Problems

If the child is not being fed as described in the above recommendations, counsel the mother accordingly. In addition:



- If the mother reports difficulty with breastfeeding, assess breastfeeding. (See *YOUNG INFANT* chart.) As needed, show the mother correct positioning and attachment for breastfeeding.
- If the child is less than 6 months old and is taking water, other milk, or foods:
 - Build mother's confidence that she can produce all the breastmilk that the child needs.
 - Suggest giving more frequent, longer breastfeeds, day and night, and gradually reducing other milk or foods.

If other milk needs to be continued, counsel the mother to:

- Breastfeed as much as possible, including at night.
- Make sure that other milk is an appropriate breastmilk substitute.
- Make sure other milk is correctly and hygienically prepared and given in adequate amounts.
- Finish prepared milk within an hour.



- If the mother is using a bottle to feed the child:
 - Recommend substituting a cup for bottle.
 - Show the mother how to feed the child with a cup.
- If the child is not being fed actively, counsel the mother to:
 - Sit with the child and encourage eating.
 - Give the child an adequate serving in a separate plate or bowl.



- If the child is not feeding well during illness, counsel the mother to:
 - Breastfeed more frequently and for longer if possible.
 - Use soft, varied, appetizing, favourite foods to encourage the child to eat as much as possible, and offer frequent small feedings.
 - Clear a blocked nose if it interferes with feeding.
 - Expect that appetite will improve as child gets better.
 - For a week after the illness is over offer increased amounts of food and continue to give favorite foods and encourage the child to eat as much as possible.
- Follow-up any feeding problem in 5 days.

APPENDIX D

**DRAFT MEMORANDUM OF UNDERSTANDING BETWEEN
USAID/ZAMBIA AND UNICEF**

AMINA STEEL
2

DRAFT

Memorandum of Understanding
between
UNICEF/Zambia and USAID/Zambia
for
Interagency Collaboration
on
Nutrition
to
Support NFNC and the CBOH

C. IV
CBOH
USAID
UNICEF

Oct 14 9-30
USAID
with Dwight
and Paul

October 1997

Integrated Training

DRAFT

MEMORANDUM OF UNDERSTANDING
BETWEEN
UNICEF/ZAMBIA AND USAID/ZAMBIA
FOR
INTERAGENCY COLLABORATION ON NUTRITION
TO SUPPORT NFNC AND CBOH

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 197 to 100/1000;
- reduction of maternal mortality rate by 50% from the current level of 640 per 100,000 livebirths;
- reduction of total fertility rate from 6.1 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 complementary interventions and activities of NFNC and CBOH that are supported by UNICEF/Zambia and USAID/Zambia in the field of nutrition in the health sector. This memorandum of understanding defines interagency collaboration on nutrition in health 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 (NFNC and MOH/CBOH) 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, Child Growth Promotion, Complementary Feeding, Integrated Management of Childhood Illnesses (IMCI), Maternal Nutrition, control of Micronutrient Deficiencies and capacity building for the Health Reforms. The timeframe for the agreement is from October 1997 to December 1998.
- 2.3. The National Food and Nutrition Commission (NFNC) is the government agency responsible for nutrition. Its vision is to "realise a nutrition conscious society by empowering all Zambians at individual, family, community and institution levels to enhance good nutrition practices, and in so doing contribute to a healthy and productive nation". The major strategies for achieving nutrition objectives are capacity building at central, district and community level in planning and implementation of nutrition initiatives focusing on training and technical support, promotion of breastfeeding, appropriate complementary foods, community-based growth monitoring and promotion, control of micronutrient deficiencies and advocacy for better nutrition.
- 2.4. The Ministry of Health (MOH) through the Central Board of Health (CBOH) is implementing the Health Reforms with the vision to provide "equitable access to cost effective quality health care as close to the family as possible". The essential health package include the following nutrition interventions: promotion of exclusive breast-feeding for 6 months, promotion of appropriate complementary foods between 6 and 24 months in addition to breastfeeding, child growth monitoring and promotion, adequate vitamin A supplementation of children 6-72 months, management of childhood illnesses, iron/folate supplementation for pregnant women and promotion of consumption of iodized salt. These interventions are being integrated in the overall PHC strategy.
- 2.5. 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, capacity building for strengthening the health reforms, promotion of exclusive breast-feeding for 6 months and appropriate complementary feeding in addition to breastfeeding from 6

to 24 months, support for BFHI, support to community Growth Monitoring and Promotion (GMP) in Livingstone, Kalomo, and Sinazongwe in Southern Province, Mpongwe District on the Copperbelt and Luapula Province, prevention and control of childhood illnesses (EPI/CDD), support the integrated management of childhood illnesses (IMCI), control of micronutrient deficiencies (vitamin A, iodine and iron), and promotion of maternal nutrition. The main strategy is to strengthen the capacity of government (MOH/CBOH and NFNC), NGOs, and communities to set realistic nutrition goals, take action, evaluate the action and effect necessary changes (the triple A cycle).

- 2.6. 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) in Kitwe on the Copperbelt and Chipata, Chama and Lundazi Districts in Eastern Province, and Infant and Young Child 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 programmatic assistance. **MANOFF Group** is part of **OMNI** and **BASICS** and provides assistance in social marketing and qualitative methods. **The Johns Hopkins 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 and 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. 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. The 1996 DHS show that 43% of children under 5 years in Zambia suffer from chronic protein-energy malnutrition (PEM). Stunting starts early, at about 3 months and is associated with poor feeding practices and illness. Only 28% of children are exclusively breastfed at 0-4 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.

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Infant and child mortality in Zambia are high (109/1000 livebirths and 197/1000 livebirths respectively in 1996 (DHS, 1997). 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.

4. **EXPECTED OUTPUTS BY THE END OF 1998**
- 4.1. Technically sound and nationally accepted guidelines, protocols, training and monitoring will have been established and used by government (MOH/CBOH/NFNC).
- 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. Prevalence of vitamin A and iron deficiency anaemia in the country will be established.
- 4.4. Expansion of supplementation of vitamin A and iron/folate under the Essential Health Package.
- 4.5. Local salt fortified with iodine; sugar fortified with vitamin A; maize meal fortified with micronutrients.
- 4.6. Twenty additional hospitals and maternity facilities trained in BFHI; 15 trained hospitals and maternity facilities certified as "baby friendly"; quality assurance system of BFHI strengthened.
- 4.7. Improved infant and young child feeding practices.
- 4.8. Community growth monitoring and promotion (GMP) activities in pilot communities in Kalomo, Livingstone and Sinazongwe Districts of Southern Province and Mpongwe District on the Copperbelt by UNICEF and in Kitwe District on the Copperbelt and Chipata, Chama and Lundazi Districts in Eastern Province by USAID/BASICS will have been established. Integration of community GMP within PHC activities. Community health promoters trained in the promotion of nutrition and management of childhood illnesses at community and household level.

- 4.9. 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.
- 4.10. 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.
- 4.11. Improved counseling of mothers on BF and HIV.
- 4.12. Advocacy for better nutrition at national, district and community level improved.

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5. ACTIVITIES FOR OCTOBER 1997-DECEMBER 1998

Programmes and activities, implementing responsible agencies, resources required and collaborating partners

I. BREASTFEEDING PROMOTION, BFHI AND LAM				
Intervention	Implementing Agency	Resources required		Collaborating Partners
		Local	External	
1.0 Policy Development:				
1.1 Printing of BF policy:	NFNC.	Personnel	Funds	UNICEF.
1.2 Dissemination of BF policy:		//	"	//
1.3 Guidelines and protocols on BFHI	NFNC, CBOH	Personnel	Funds	UNICEF.
1.4 Guidelines on LAM	NFNC CBOH	Personnel	TA, Funds	USAID/LINKAGE
1.5 Dissemination of Code on BMS (Workshops, Newspaper and Television coverage)	NFNC, CBOH/MOH	Resource persons	Funds.	UNICEF, ICFAN

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Integrated

2.C Training

Policy

2.1	TOT for health workers in LM and counseling (1 per region).	NFNC, CBOH	Resource persons	Funds	UNICEF
2.2	In-service training of hospital staff on BFHI.	NFNC, CBOH	Resource persons	Funds	UNICEF.
2.3	Training of 2 National staff on BMS marketing legislation.	NFNC, CBOH	Resource persons	Funds	UNICEF
2.4	Lactational Management Manuals.	NFNC, CBOH, UTH	Resource persons	TA, Funds	UNICEF, USAID, LINKAGES
2.5	BF/HIV guidelines for counseling.	NFNC, CBOH, UTH	Personnel	TA, Funds	USAID/LINKAGE
2.6	Training on BF/HIV counseling.	NFNC, CBOH	Resource persons	TA, Funds	USAID/BASICS, Linkages
2.7	Training of MSG in LM and peer counseling	NFNC, BAZ, LLL	Resource persons	Funds TA Funds	UNICEF, USAID, BASICS
2.8	Local and regional training/meetings of national programme managers.	NFNC, CBOH	Personnel	Funds.	UNICEF.
2.9	Development of curriculum on LAM;	CBOH NFNC	Personnel.	TA, Funds	USAID/LINKAGE
2.10	TOT on LAM;	CBOH, NFNC	Personnel.	Funds TA	USAID/LINKAGE
2.11	Training of health staff on LAM	CBOH, NFNC	Personnel.	Funds TA	USAID/LINKAGE

3.0 Research				
3.1 Appropriate BMS for orphans:	NCSR, NFNC.	Personnel, facilities.	TA, Funds, equipment and supplies.	USAID/LINKAGES
3.2 Operational research on infant feeding counseling.	NFNC, CBOH, UTH	Personnel	Funds	USAID/LINKAGES BASICS
4.0 Monitoring and Evaluation				
4.1 Develop BF indicators and mechanism for monitoring BF and BFHI within the HMIS:	NFNC, CBOH	Personnel	TA, Funds	USAID/LINKAGES, BASICS.
4.2 Monitoring of BF:	NFNC, FHANIS, CBOH.	Personnel.	Funds	UNICEF.
4.3 Monitoring of BFHI and certification (hospital plaques for BFHI):	NFNC, CBOH.			UNICEF
4.4 Monitoring of Code for BMS	NFNC, CBOH	Personnel.	Funds.	UNICEF.
5.0 Advocacy				
5.1 Quarterly meetings of National BF Taskforce:	NFNC, CBOH, BAZ	Personnel	Funds.	UNICEF.
5.2 Consensus building on BF and HIV:	NFNC, CBOH.	Personnel.	Funds.	UNICEF.
5.3 BF Week Celebrations.	NFNC, BAZ	Personnel.	Funds.	UNICEF.

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II. COMPLEMENTARY FEEDING CF				
Intervention	Implementing Agency	Resources required		Collaborating Partners
		Local	External	
1.0 Policy Development on CF				
1.1 Guidelines on complementary feeding	NFNC, NCSR	Personnel	Funds	UNICEF, USAID/BASICS.
<i>Integrated</i> 2.0 Training on CF				
2.1 Development of curriculum on CF;	NFNC, CBOH.	Personnel.	TA, Funds,	USAID/BASICS.
2.2 Training of MSG, PHP and CHWs on BF and CF counseling.	NFNC, CBOH.	Personnel.	Funds.	UNICEF, USAID/BASICS.
II. COMPLEMENTARY FEEDING CF				
Intervention	Implementing Agency	Resources required		Collaborating Partners
		Local	External	
3.0 Research on CF				
3.1 Formative research on appropriate child feeding practices:	NFNC, NCSR	Personnel.	TA, Funds.	UNICEF, USAID/BASICS.
4.0 Monitoring and Evaluation of CF				
4.1 Development of indicators of CF;	NFNC	TA, Personnel.	Funds.	USAID/BASICS.
4.2 Monitoring of CF.	FHANIS, CSO	Personnel.	Funds.	UNICEF, USAID/BASICS.
4.3 Operational research on improved Counseling on child feeding at Health Centre.	NFNC, CBOH	TA, Personnel.	Funds.	
5.0 Advocacy on CF				
5.1 Support to annual nutrition and child survival symposium:	NFNC, NAZ, PAZ	Personnel.	Funds.	UNICEF, USAID/BASICS.

III. Community Growth Monitoring and Promotion (GMP)				
Intervention	Implementing Agency	Resources required		Collaborating Partners
		Local	External	
1.0 Policy Development on community GMP				
1.1 Guidelines on community GMP (integration with PHC activities);	NFNC, CBOH.	Personnel.	Funds.	UNICEF, USAID.
2.0 Training on community GMP				
2.1 Support to community-based child growth promotion in Southern, Luapula Provinces and Mpongwe District; Kitwe and 3 districts in Eastern Province;	NFNC, FHANIS, CBOH.	Personnel.	Funds, Equipment.	UNICEF, USAID/BASICS.
2.2 Revision and printing of CCC other support materials BF IMCI;	NFNC, CBOH.	Personnel.	TA, Funds.	UNICEF.
2.3 Finalization and printing of growth promotion counseling cards;	NFNC, CBOH.	TA, Personnel.	TA, Funds.	USAID-BASICS.

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VIII. PROGRAMME SUPPORT			
Activity	Implementing Agency	Resources required	Collaborating Partners
1.1 Support the position of nutritionist at CBOH:	NFNC	Funds.	UNICEF, USAID, BASICS.
1.2 Procurement of vitamin A capsules for EDP, NID:	NFNC, CBOH.	Vitamin A capsules, Funds.	UNICEF
1.3 Equipment for sugar fortification	ZSC	T.A. Equipment	UNICEF

IX. IEC				
Intervention	Implementing Agency	Resources required		Collaborating Partners
		Local	External	
1.1 National Nutrition IEC Strategy formulation;	NFNC, CBOH, National IEC Committee.	T.A. Personnel.	T.A. Funds	UNICEF, USAID.
1.2 Research on IEC strategies:	NFNC.	T.A. Personnel	Funds.	UNICEF, USAID/ BASICS, OMNI, LINKAGES.
1.3 Uptodate materials on BF, CF, IMCI, IDA, IDD.	NFNC.	Personnel.	Funds, Equipment.	

APPENDIX E
LIST OF CONTACTS

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Kamwala Health Center

Ruth Mtolo, Zambia enrolled midwife (ZEM)

Melody Ngondwe, ZEM

Stella Munge, nurse

Chawama Health Center

Happy N. Chipow, Registered nurse

Esther Kabombo, Family Health Nurse

CBOH

Mary Meya Nyirenda, Coordinator of Child Health and Reproductive Health