

# TRIP REPORT



 **BASICS**

PD-ABN-377

**NUTRITION COMPONENT OF THE  
BASICS/MADAGASCAR  
CHILD SURVIVAL PROJECT**

Cheryl Combest  
Tina G.Sanghvi

July 1996

Technical Directive No: 000-MG-01-035  
USAID Contract No: HRN-6006-C-00-3031-00

B

## TABLE OF CONTENTS

	Page
ACRONYMS	
I. EXECUTIVE SUMMARY .....	1
II. BACKGROUND .....	4
A. Overview of the Nature and Magnitude of the Nutrition Problem .....	4
B. Overview of Nutrition Programs and Donors .....	9
III. USAID IN POPULATION, HEALTH AND NUTRITION .....	12
IV. THE BASICS PROJECT .....	13
V. TRIP ACTIVITIES .....	14
VI. MINIMUM PACKAGE ASSESSMENT .....	15
VII. RECOMMENDATIONS ON BASICS NUTRITION ACTIVITIES .....	22

### APPENDICES:

Appendix A:	List of Baby Friendly Hospitals
Appendix B:	References

## ACRONYMS

ADRA	Adventist Development and Relief Agency
AED	Academy for Educational Development
APPROPOP/PF	Population Support Project/Family Planning
ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival
BCC	Behavior Change and Communication
BF	Breastfeeding
BFHI	Baby Friendly Hospitals Initiative
CA	Cooperating Agency/Cooperative Agreement
CAP	Country Activity Plan
CDD	Control of Diarrheal Diseases
CF	Complementary Feeding
CRENA	Community Nutrition Rehabilitation Center for Moderately Malnourished Children
CRENI	Hospital-based Nutrition Rehabilitation Center for Severely Malnourished Children
CRESAN	World Bank-supported Health Sector Reform Project
CRS	Catholic Relief Services
CS	Child Survival
DHS	Demographic and Health Survey
DPT	Diphtheria, Pertussis, Tetanus
EBF	Exclusive Breastfeeding
EPI	Expanded Programme on Immunization
FP	Family Planning
GTZ	German Assistance Agency
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
KAP	Knowledge, Attitudes and Practices
LAM	Lactational Amenorrhea Method
MCH	Maternal and Child Health
MICS	Multiple Indicators Cluster Survey
MOH	Ministry of Health
MSF	Médecins Sans Frontières
NAC	Nutrition Assistance to Communities (UNICEF Project)
NGO	Non-Governmental Organization
OMNI	Opportunities for Micronutrient Interventions Project
ORT	Oral Rehydration Therapy
PHN	Population, Health and Nutrition
PRITECH	Technologies for Primary Health Care
PVO	Private Voluntary Organization
RP	Results Package
SECALINE	World Bank-assisted Food Security and Nutrition Project
SNA	Food and Nutrition Service of the Ministry of Health

d

SO	Strategic Objective
TDY	Temporary Duty
TGR	Total Goiter Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAD	Vitamin A Deficiency
WHO	World Health Organization
WFP	World Food Programme

E

## I. EXECUTIVE SUMMARY

The primary objective of this technical assistance was *to identify the nutrition components of the BASICS project* in Madagascar and specify next steps to begin implementation. The recommendations are based on discussions held with district staff of MOH in Antsirabe II, and visits to a health center, SALFA hospital and markets/pharmacies in Antsirabe district. Discussions were also held in Antananarivo with government counterparts at the Food and Nutrition Service of the Ministry of health (SNA/MOH), and with UNICEF, WHO, World Bank teams from the SECALINE and CRESAN projects, child survival advisors from Peace Corps and NGOs (CRS, CARE, MSF), and APPROPOP.

Nutrition indicators for Madagascar are among the worst in Africa. Over half of all children under five are stunted, every two of three women experience anemia during pregnancy, one in four persons has goiter or iodine deficiency, and over a third of the districts are estimated to have a significant prevalence of nightblindness. Information and studies on causal factors and their relative priority are insufficient to develop firm conclusions. Indirect evidence and patterns found in similar populations suggest that access to food, feeding practices and care of children, and disease are important. High fertility, environmental degradation, disintegrating social services, and rudimentary/decaying infrastructure are underlying factors that will likely delay achievement of significant and sustained improvements in nutrition in the near term.

Several program activities under the leadership of the Ministry of Health's SNA are underway mainly with UNICEF, WHO, and World Bank assistance. Private voluntary organizations such as CRS, CARE, and MSF are providing Title II and WFP food with accompanying health services. Some success has been achieved in reducing the prevalence of goiter through distribution of supplements. Assets to this effort are good donor coordination, initial success in community nutrition projects (SECALINE/PCN and UNICEF/NAC), initiation of health reforms, and the presence of a critical mass of nutrition-oriented international agencies.

BASICS is in a unique position to make a contribution, particularly if support can be provided beyond September 1998. First, its main counterparts are key entities in the health sector—both in government and NGOs but also in the donor community. Donors, de facto, play the defining role in strategy and policy formulation. Second, BASICS advisors who are clearly aware of nutrition as a key child survival factor, are located in-country. Third, BASICS mandate is to work in service delivery in addition to national level policy and strategy development. The target districts for BASICS are located where malnutrition prevalence is highest, and are readily accessible from Antananarivo. This provides an important opportunity to test and demonstrate a viable nutrition component for replication. Thus BASICS and USAID have the capability to provide two key missing elements to the nutrition field: technical assistance to upgrade current policies, protocols and strategies based on worldwide experience; and field sites to develop innovative and complementary nutrition components within the framework of Madagascar's community and health services.

The recommended nutrition components of BASICS' activities in child survival include in-depth work in two focus districts combined with advocacy and information-sharing at the national level.

The objective of the *nutrition interventions in the two BASICS focus districts* is to strengthen the community linkages to health facilities where IMCI training and follow-up are to be introduced for the purpose of addressing the high prevalence of stunting and low weight-for-age. The interventions at the community level are expected to emerge from consultative research at the household level and will address breastfeeding practices, complementary feeding, diet during pregnancy and feeding practices during and after illness. The nutrition component will be an integral part of BASICS' minimum package of community-level child survival activities, which also includes EPI and home management of diarrhea. Community-level interventions include:

- a) consultative research based on guidelines in the *Designing by Dialogue* manual to identify critical child feeding and care-seeking behaviors amenable to change. The results are to be used in developing the community-based behavior change and communication (BCC) strategy and for completion of the IMCI "food box".
- b) taking an inventory of and developing partnerships with local leaders, beneficiaries, NGOs/associations, and other providers of social services in communities within each selected health facility's catchment area. These entities will be provided the skills, support and tools to deliver the BASICS' BCC package intended towards improving household and community behaviors.
- c) tracking changes in program participation, child feeding practices, care of sick children, and nutritional status through activities identified as appropriate and feasible. These might include annual reviews of how well children are growing in each community, and focus groups with women, community organizations and NGOs.

The action-research will be combined with implementation of behavior change activities (including in-service training) and these will be undertaken through BASICS' BCC and IMCI components. In the first year, the focus may be on preventive maternal/child feeding messages, but as the IMCI trainings are completed, the BCC component will be broadened to include care of sick children in facilities and in the community, and appropriate referral to health facilities.

*BASICS role in nutrition at the national level* is aimed at enhancing the cost-effectiveness and sustainability of district and province level efforts, and also to increasing the impact of its technical resources and presence in Madagascar. The expected outcomes include:

- a) improved/up-to-date policies for each component of the nutrition minimum package;

- b) adoption of nutrition minimum package interventions as part of the child survival strategies of MOH (central and district levels), and by UNICEF, World Bank, CRS, CARE, and Peace Corps; and
- c) revised medical, nursing, public health and nutrition curricula based on current model curricula developed by WHO, UNICEF, OMNI and WELLSTART.

Next steps include hiring a full-time Malagache nutritionist to join the BASICS in-country team, and initiating action-research on developing a community-based child feeding and nutrition strategy with MOH/SNA, UNICEF and WHO.

## II. BACKGROUND

The primary objective of this technical assistance was to identify the nutrition components of the BASICS project in Madagascar and specify next steps to begin implementation. The USAID mission also requested a mapping of the "nutrition landscape" to the extent possible in the short time available. Recommendations made in this report reflect the USAID Mission's objectives, BASICS' role in child survival, the nature and magnitude of nutrition problems, and related programs and policies in Madagascar.

### A. Overview of the Nature and Magnitude of the Nutrition Problem

An estimated 48 percent of all deaths under five are associated with low weight for age in Madagascar, and 85 percent of these are due to mild or moderate malnutrition (Pelletier, et. al., 1993). Table 1 summarizes current information on anthropometric indicators of child malnutrition.

**Table 1. Anthropometric Indicators of Child Malnutrition in Madagascar**

Group and Survey	Weight/age %		Height/age %	
	- 2 SD	-3 SD	- 2 SD	-3 SD
	<b>National</b>			
Rural: DHS 92	33.4	7.1	52.3	24.4
MICS 95	35.1	10.4	50.5	27.4
Urban: DHS 92	40.0	9.8	44.0	19.2
MICS 95	30.8	7.8	47.1	25.2
	<b>BASICS Provinces</b>			
<b>Antananarivo:</b>				
DHS 92	44.7	8.6	61.4	27.8
MICS 95	38.0	10.5	58.4	33.2
<b>Fianarantsoa:</b>				
DHS 92	47.1	14.8	58.4	30.8
MICS 95	41.9	14.4	55.8	34.2

Survey dates: DHS May- November 1992; MICS June-July 1995.

Micronutrient deficiencies affect a large proportion of children and women. Inappropriate infant feeding practices in addition to frequent and severe childhood illnesses contribute significantly to the widespread malnutrition. The report *BASICS Country Activity Plan (CAP) for Madagascar, 1994-1996*, provides a comprehensive overview of the epidemiological situation relevant for "nutrition-in-child survival" programming. Additional data on nutrition and infant feeding practices and quality of health services that have recently become available, and discussions with the Ministry of Health nutrition experts and other donor agencies, confirm the findings of the BASICS CAP.

Main highlights are outlined here. All figures are taken from the DHS:

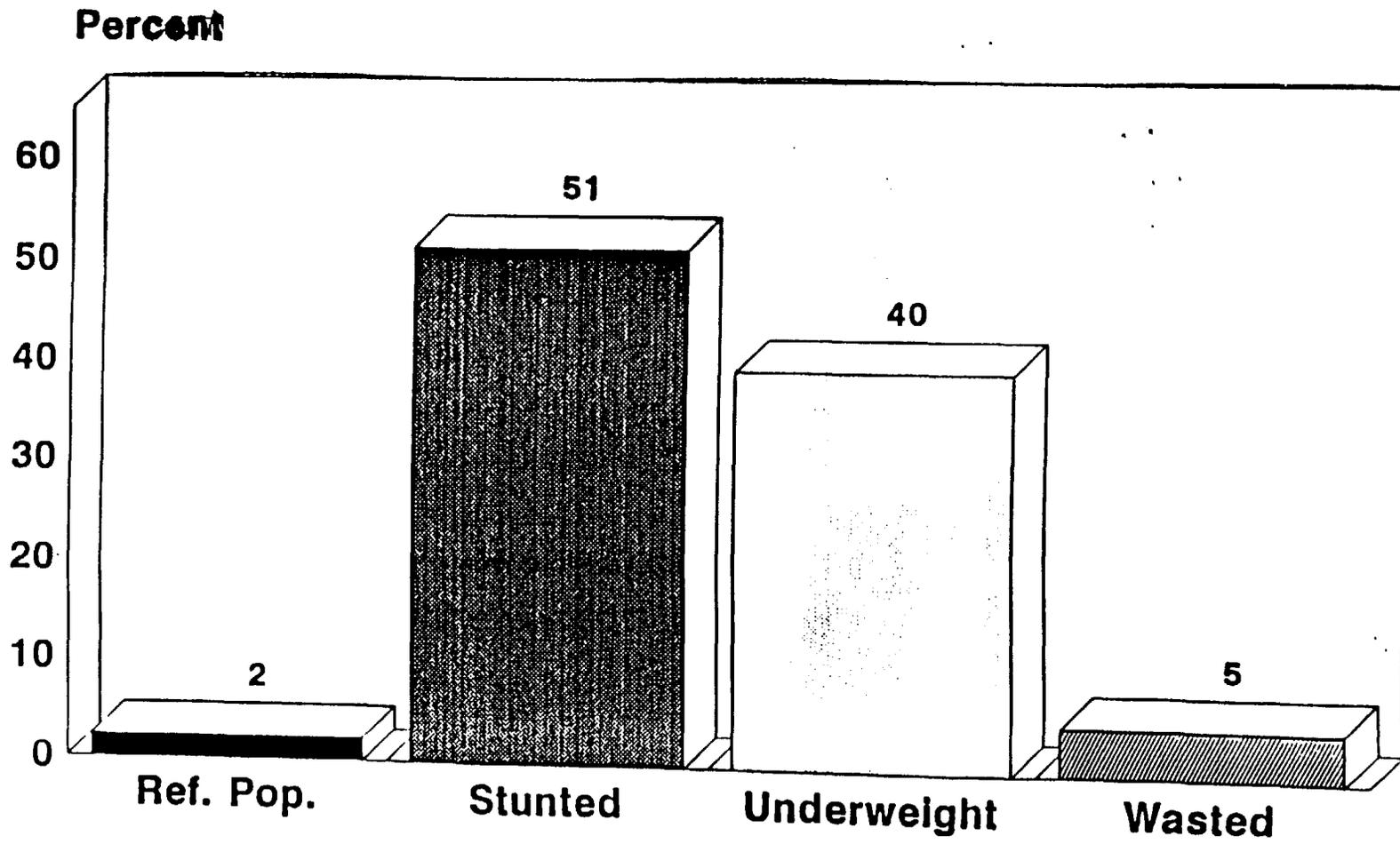
- ▶ The high level of stunting (>50 percent among under fives) in Malagasy communities is striking (Figure 1). BASICS project districts are located in provinces with the highest prevalence of malnutrition, i.e., Antananarivo and Fianarantsoa (Figure 2).
- ▶ The early age at which malnutrition occurs is also striking. A significant number of infants are short at birth; over 30 percent of 6-11 month olds are stunted and over 30 percent are underweight (Figure 3).<sup>1</sup>
- ▶ In addition to a high prevalence of stunting and early malnutrition, micronutrient deficiencies are a serious problem in Madagascar. Nationally, 31 of the 111 administrative districts have been identified as Vitamin A deficient based on a survey of nightblindness among 2-6 year old children conducted in July-August 1994 by immunization teams.
- ▶ National prevalence of goiter (TGR) fell from 45.2 percent in 1992 to 22.8 percent in 1995, following distribution of iodized oil capsules. It remains a problem, and BASICS districts are located in areas where goiter is endemic. Supplements have been dropped in favor of iodized salt but iodized salt is being sold at a substantially higher price than non-iodized salt in some areas.
- ▶ Currently, 80 percent of all pregnant women in the third trimester are estimated to have anemia (UNICEF, 1994). Anemia among young children is likely to be a serious problem and needs to be assessed. Intervention packages that need to be developed could potentially include: supplements and deworming for women and children, malaria control, promotion of iron status enhancing foods. Iron supplements for children under two years are included in the IMCI protocol, but iron is not yet on the national list of essential drugs.

---

<sup>1</sup>This is partially an artifact of current growth norms that are based on formula fed infants. New norms are likely to be lower in achieved weight but with faster growth rates for 0-3 month olds, and slightly slower growth rates for 4-11 month olds. In any case, inadequate *quality* of exclusive breastfeeding (resulting in intakes below the 700-850 ml required for adequate growth), and transition from EBF to BF plus complementary foods will probably remain targets of behavior change interventions.

**Figure 1**

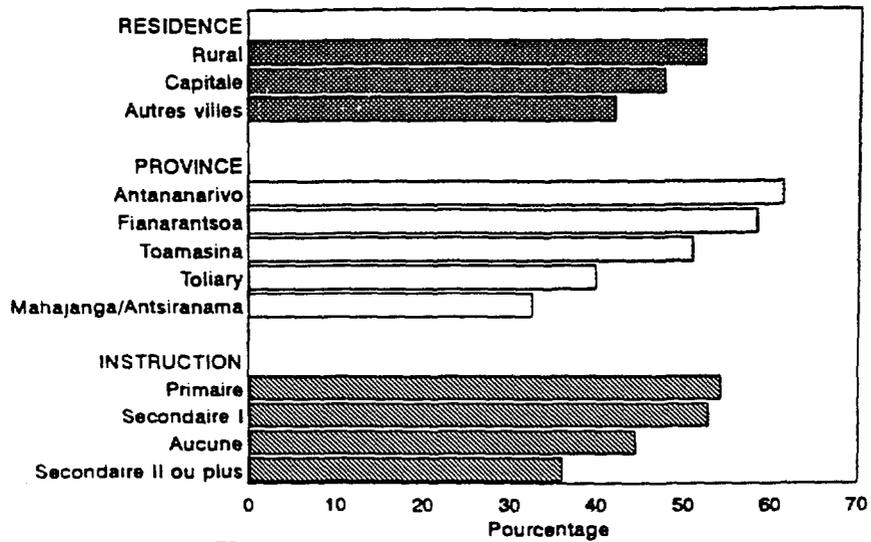
**Undernutrition among Children under 5 Years, Madagascar**



Note: Stunted reflects chronic undernutrition; wasted reflects acute undernutrition; underweight reflects either chronic or acute undernutrition.

FIGURE 2

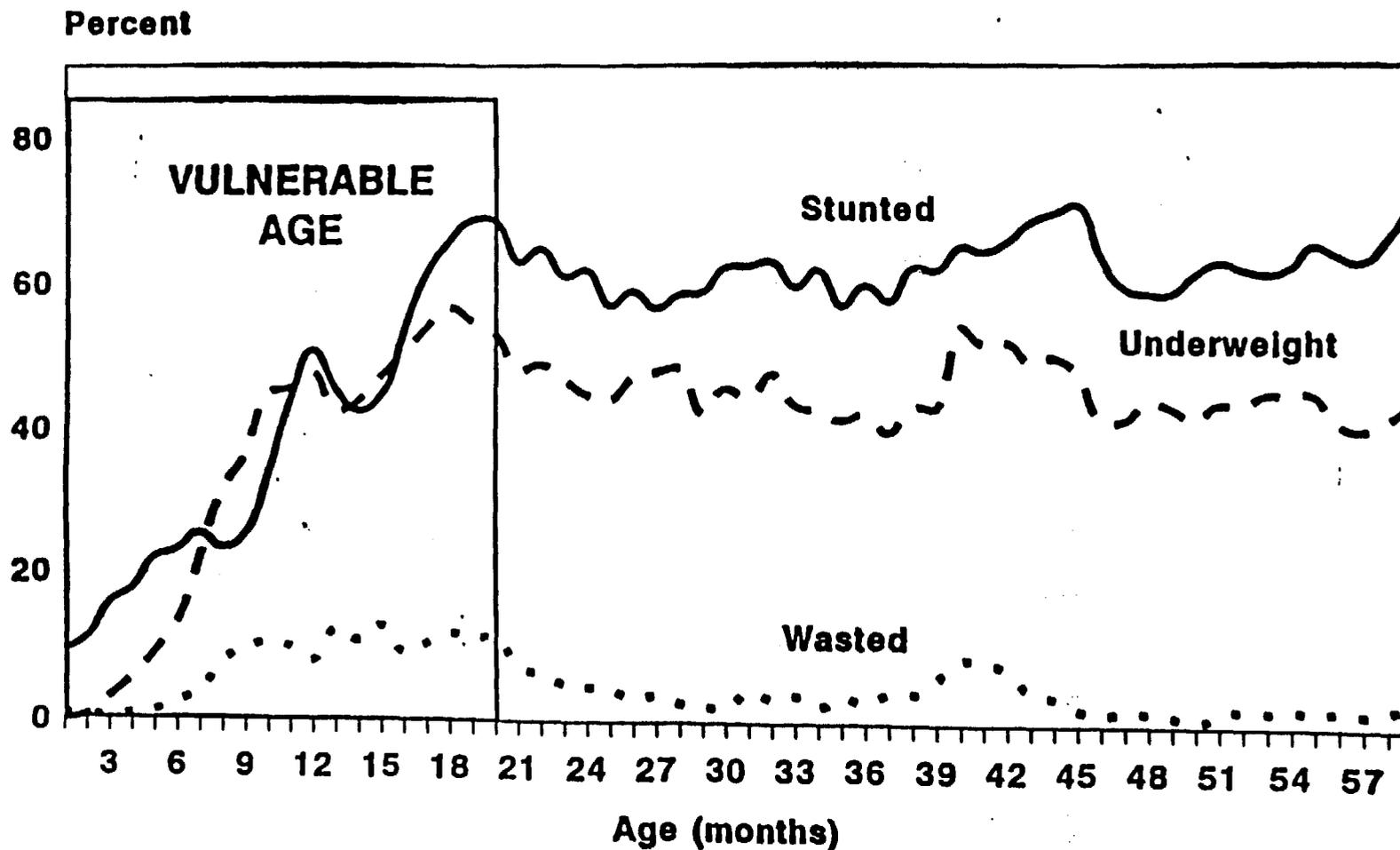
### Pourcentage d'enfants de moins de cinq ans présentant un retard de croissance



Note: Taille-pour-âge inférieure à -2 ET de la médiane de la population de référence

ENDS 1992

**Figure 3**  
**Undernutrition by Age, Madagascar**



e: Stunted reflects chronic undernutrition; wasted reflects acute undernutrition;  
 Underweight reflects either chronic or acute undernutrition.

- ▶ Data available on nutrition-related factors, though far from complete, suggest that improving breastfeeding and complementary feeding practices, combined with fewer and less severe infections, could prevent the rapid decline in adequate infant growth. Prenatal nutrition, including calorie and micronutrient adequacy, and adequate weight gain, are likely to be important.
- ▶ Examples of detrimental child feeding practices noted by nutrition program implementers and KAP survey reports include: delayed BF initiation after birth for over 24 hours, interruptions in demand feeding due to mothers' work (rural, agricultural), too early introduction of semi-solids in some regions and too late in other regions. Overall, formula use and bottle feeding is low, and there is not much evidence of mass media promotion of substitutes. Not much is known about the frequency of feeds, prelacteal liquids, use of tobacco by nursing women, frequency of feeding semi-solids, volume and consistency of foods, caloric density and micronutrient density of complementary foods, or how these decisions are made and motivations/constraints to modifying them. This type of information needs to be obtained from consultative research (e.g., Designing by Dialogue manual), and synthesized for the BCC strategy and IMCI "food box".
- ▶ An important starting point to bring about changes in feeding practices may be the first prenatal contact (almost 80 percent coverage). Motivation, confidence building and skills development among mothers could later be influenced by trained community facilitators and counselors, and during contacts with peripheral health workers including sick child visits to health posts/centers and immunization visits both in the community and at health sites. Experience with successful infant feeding behavior change strategies demonstrates the importance of continuity and use of multiple channels for providing this support.
- ▶ In-service training and comprehensive BCC are key elements. In particular, the counseling skills of health workers need to be strengthened.
- ▶ At the central and regional levels, building technical and managerial depth and pre-service curriculum improvements need to be supported. Regional midwife and nursing schools currently closed are due to re-open next year. They will provide an excellent opportunity to strengthen nutrition curricula.

## **B. Overview of Nutrition Programs and Donors**

The key government counterpart agency for nutrition is located in the Ministry of Health—the Service Nutritionelle et Alimentation or SNA. An inter-agency group chaired by SNA, with representatives from the Ministry of Agriculture, Ministry of Trade, Ministry of Research, WHO, UNICEF and World Bank, and SECALINE developed the National Plan of Action in September 1995, as follow up to the International Conference on Nutrition. SNA develops policies, undertakes materials design and production, conducts research and coordinates donor activities. Dr. Hanta is the director and also manages the iodized salt program. She is assisted by

Dr. Bako who manages activities related to infant feeding practices, and Dr. Simon who manages Vitamin A programs and participates in the IMCI working group. They work together on iron deficiency anemia and maternal nutrition. For food production-related issues, a unit in the Agriculture Ministry covers nutrition. Work on preparation of background papers for the World Food Summit to be held in Rome in November 1996 is underway in the Ministry of Agriculture.

Comprehensive nutrition programming has only recently begun in Madagascar. Of the four country-wide nutrition initiatives (Title II MCH, salt iodization, Vitamin A supplementation, and the Baby Friendly Hospitals Initiative), three were initiated in 1995-1996. Limited technical resources for nutrition program development and implementation are a serious constraint. Utilizing opportunities for incorporating nutrition as part of in-service training in health and other sectors is key. Serious efforts to strengthen pre-service curricula are needed, as is providing program design and implementation opportunities for as many Malagache nutrition and public health personnel as possible. Another serious constraint is the lack of an identifiable, active, inter-sectoral national policymaking or advocacy group. While this is not an immediate constraint for BASICS nutrition activities, it is critical for sustainability and needs to be addressed jointly by the donor community. The World Bank and UNICEF are uniquely positioned to lead this effort.

International donor agencies play an important role in defining priorities, developing strategies and providing the technical and financial resources for implementation. UNICEF supports the most comprehensive array of activities, primarily through the health sector. (See UNICEF's nutrition action plan for 1996, referenced in Appendix B.) Included are micronutrients (mainly Vitamin A and iodine), infant feeding (mainly breastfeeding through BFHI), and community approaches (a version of the triple-A cycle is being developed in selected areas). An important contribution is tracking key indicators through MICS surveys.

The World Bank funds a community nutrition program in two regions (Antsirabe and Toliary), complemented by funding for other selected activities, such as nutrition rehabilitation centers, iodization of salt, study on food habits. Their main nutrition project--SECALINE--is designed along the pattern of the successful World Bank-funded Tamil Nadu project. It includes small grants for infrastructure projects to address food security (this has now been turned into an autonomous entity called FID), and a separate MCH component for mothers' education/growth monitoring and food distribution (provided or funded by WFP) through grants to NGOs. Thus far, all activities are outside the government health system.

Among the bilaterals, presumably the GTZ--assisted and French Cooperation--assisted primary health care/CS projects in Mahajunga and Tamatave, respectively, include some nutrition education/counselling, although no explicit nutrition component or materials could be located in Tana during this TDY.

The PVO community is actively engaged in nutrition. Key among these are new activities being developed under the USAID-funded child survival grants to CARE<sup>2</sup> and CRS<sup>3</sup>. ADRA is potentially a recipient of CS funding. MSF<sup>4</sup> is involved in nutrition rehabilitation.

CARE's child survival director, Eleonore Seumo, has a nutrition background and has been trained in the state-of-the-art methodology for developing child feeding guidelines by the Manoff Group's Weaning Project in Cameroon,. She is interested in, and should be tapped for, the BASICS consultative research/training on child feeding. Results of the proposed household trials in CARE-assisted urban communities could be an important contribution to developing comprehensive national child feeding guidelines. It will be important for BASICS to follow up on results of community needs assessments with respect to the minimum package of nutrition activities.

Catholic Relief Services has begun nutrition training for health post manager in the Antananarivo area. A review of the training plans and materials showed that key elements of the BASICS minimum package of nutrition activities (e.g., Vitamin A and iron supplements) are missing. Also excluded in the project is counseling on family planning or referral to APPROPOP/PF collaborators. The Mission will bring this up with CRS to determine whether these components can be added to the project.

Regarding the nutrition rehabilitation centers, with an estimated 85 percent of malnutrition-related mortality estimated by Pelletier et. al. to be due to non-severe malnutrition, it is questionable whether a separate program infrastructure dedicated to recuperating severely

---

<sup>2</sup> Urban child survival activities are being developed in 22 low income neighborhoods of Antananarivo through local community networks. The focus is improving nutritional status, and sustainability is a key objective that drives the project design and implementation approach. Interventions are expected to emerge from needs assessments and will likely include hygiene and sanitation, BF, FP, ARI, CDD and immunizations. Anecdotal evidence indicates that income generating activities, particularly for impoverished areas and single mothers, are a likely priority to come out of the needs assessments.

<sup>3</sup> Rural CS activities are planned. Five communities in each of 228 health center catchment areas are selected on the basis of good prior linkages with CRS, community interest, proximity and poverty. A monthly ration (valued at approx. \$3.5) of 5 kg corn soy blend (CSB), 3 kg rice and 1 liter oil is provided for a maximum of six months to families with malnourished children (2nd and 3rd degree) and pregnant and lactating women. Each village selects two promoters who are paid \$1.25/month. The health center staff will train promoters within their catchment area in growth monitoring, nutrition education, infant feeding, diarrhea prevention, and promotion of immunization. Two CS advisors located at CRS/Tana supervise and train 13 correspondents in each of the dioceses covered by the program.

<sup>4</sup> MSF supports 17 CRENAs (private and public community nutrition rehabilitation centers for moderately malnourished children) and 3 CRENIs (for the severely malnourished, based at pediatric hospitals). WFP food or funds for local food are provided under the World Bank-assisted SECALINE project. MSF's current interest is to determine whether recuperation protocols developed for emergency/refugee camps are successful in chronically malnourished communities. Peak attendance is among the 18-24 month age-group and occurs around January, following the *soudure* (pre-harvest season). There is no medical follow-up of the children, and age is limited to 6-59 month olds. A significant proportion are street dwellers.

malnourished children is likely to be sustainable. MSF itself is now engaged in re-evaluating its strategy in this respect, and noted an interest in working in conjunction with CARE (urban CS program baseline survey) to gather data on identifying current coverage of rehabilitation services, household socio-economic/demographic profiles of the participants and non-participants, repetition rates, and nutrition and health outcomes of participants. The addition of these variables to the CARE baseline would be a productive collaboration.

Among other collaborators, the Peace Corps has some capability and much interest in nutrition/CS work and expects to play an important role in communities where health and nutrition volunteers are located.

### **III. USAID IN POPULATION, HEALTH AND NUTRITION**

The USAID Mission supports efforts to promote smaller, healthier families in Madagascar through rapid expansion of high quality family planning services nationwide, accompanied by improved child survival. Strategic Objective No. 2 (SO2)<sup>5</sup> addresses the family planning and maternal child health needs of Malagasy families through three results packages as follows:

RP1: expanded family planning services and use (targeted to institutions and facilities);

RP2: promotion of child survival-related nutrition and health behaviors (targeted to households, communities and peripheral health workers); and

RP3: policy environment (economic, political and institutional focus).

Family planning is the main focus with 72 percent of SO2 funds allocated; total SO2 funds are estimated at approximately \$63 m through the year 2002 (excluding the value of Title II foods, estimated at \$38 m, and \$8 m in field support). Program activities are primarily in family planning services delivery and are conducted through the APPROPOP/PF project (technical assistance is provided under a Cooperative Agreement with MSH, with AED as subcontractor).

In designing the APPROPOP/PF project, USAID recognized the important linkages between family planning and child survival programs. Beginning in early 1993, USAID worked with the centrally-funded PRITECH project to develop the capacity of the MOH to promote effective case management of diarrheal disease. PRITECH recruited and posted a technical advisor for a period of about eight months, and undertook an intensive program of technical assistance and training in case management, program planning, supervision, IEC, and promotion of in-country capacity to market the ODIVA ORS packet at facility level.

---

<sup>5</sup> USAID was recently asked to narrow their focus as part of down-sizing, and consolidated their portfolio into 3 SOs. Family planning and maternal-child health remains one of the three. (SO2)

USAID is an important and growing presence in nutrition. However, as in many other countries, UNICEF and WHO are the lead donor agencies in terms of historical involvement, current range and magnitude of support, and visibility. Coordination and collaboration of BASICS with WHO and UNICEF at headquarters, at the regional office, and in country is critical.

#### IV. THE BASICS PROJECT

With the phase out of the PRITECH project and start up of BASICS in Madagascar, USAID encouraged BASICS to undertake a more comprehensive analysis of the child health problem. The BASICS country representative and a team from headquarters developed the BASICS Country Activity Plan (CAP) in mid-1994, and this exercise was instrumental in setting forth the rationale for an expanded child survival program, now being implemented with delivery order and field support funding. The current delivery order and work plan organizes BASICS' activities and support into four general areas:

- 1) the development of district level capacity to plan and implement child survival and nutrition activities;
- 2) the promotion of sustainable behavior change at the community and household levels around critical child survival and nutrition behaviors;
- 3) support at the national level to develop capacity to plan and implement training in the integrated management of childhood illnesses (IMCI); and
- 4) assistance to USAID in the coordination of its child survival program, primarily through assistance to USAID's child survival partners (CARE, CRS, Peace Corps, UNICEF, and perhaps other NGOs).

BASICS will recruit additional staff, both expatriate and local, to manage its expanded portfolio of activities. A long-term advisor in IEC will arrive at the beginning of October, and other locally available experts in nutrition, PVO coordination, grants management, and other areas will be recruited. In addition to the funds directly available to BASICS through the delivery order and field support mechanisms, a small grants program will be developed in conjunction with APPROPOP/PF and USAID to fund activities with local NGOs and the districts themselves.

The primary interventions of the BASICS program are in-service training of government health workers and behavior change/communications (BCC) or IEC aimed at household and community behaviors. Policy dialogue, monitoring and evaluation, and curriculum reform are also included. Given the magnitude of public health and nutrition problems, multiplicity of underlying and proximate causes, and scarce resources available to make a difference, BASICS activities are focused primarily in two (out of 111) administrative districts. In addition, the USAID Mission

looks to BASICS to provide overall technical guidance to MOH, other donors, USAID/Madagascar-funded NGOs such as CRS, CARE and the Peace Corps.

The two focus districts—Antsirabe II (in Antananarivo province) and Fianarantsoa II (in Fianarantsoa province)—are located in Madagascar's central high plateau region, each one approximately three hours and seven hours by car respectively, on the road going south from the capital city. There are 26 health centers in Antsirabe II and 30 in Fianarantsoa II of which approximately 10-15 will have the prerequisites to carry out IMCI. It is in these selected centers that the adapted food box will initially be used, and where the community-level BCC activities are expected to provide intensive support.

Each of the health centers selected for IMCI has two people and is equipped with a weighing scale. Health center staff have an average of seven years of schooling and a six-month training course on primary health care. They have not been trained in weighing children and few centers are using scales. Training in other nutrition areas is virtually non-existent. For example, information about Vitamin A supplementation protocols and breastfeeding initiatives was passed down from Tana to provincial directors who then passed them on to district managers; they in turn brief health center staff. Drug supply remains a major bottleneck. The Bamako Initiative (FIB-IB) is expected to cover three to four center per year in each of BASICS' focus districts. Vitamin A supplements are supplied outside usual drugs supply systems and are distributed directly by SNA to provincial health directors, who then distribute them to health facilities through district managers and hospital chiefs.

In order to facilitate BASICS' technical inputs to other NGO activities, and backstop nutrition work, BASICS has hired Cheryl Combest, who has been working with USAID's family planning contractor for the past three years and recently on WELLSTART's community breastfeeding manual. Combest is available half-time and is expected to leave the country next year, so BASICS is hiring a full-time Malagache nutritionist to work with her. A Peace Corps (child survival) volunteer has recently been located in one of BASICS' districts (Fianarantsoa II) and is expected to provide important reinforcement for nutrition activities here.

## **V. TRIP ACTIVITIES**

The recommendations are based on discussions held with eight selected district staff of Antsirabe II and their supervisors; visits to Mandrosohasina health center and SALFA hospital, and markets/pharmacies in Antsirabe district; discussions held in Antananarivo with government counterparts (Drs. Hanta, Bako and Simon of SNA/MOH), UNICEF officials (Dr. Abdullah, Susan Allman and Françoise Gruloos), WHO nutrition backstop (Dr. Ranjalahy), the World Bank teams from projects SECALINE (Martine Lugat) and CRESAN (Marie-Odile Waty), child survival advisors from Peace Corps and NGOs (CRS—Drs. Zoe Rasoarimalala and Dr. Liliane Rajaonah; Peace Corps—Dr. Agnes Guyon; CARE—Eleonore Seumo and Vonifanja; and

MSF—Serge Raharison, Brigitte Doppler, et. al.), and the Chief of Party for APPROPOP/PF (Agma Prins).

## VI. MINIMUM PACKAGE ASSESSMENT

Information on the minimum package is summarized in Tables 2 and 3 on the following pages. The current amount and quality of data—on the problem, program coverage and program quality—are inadequate for definitive conclusions. The initiation of MICS is a major step forward in bridging this gap<sup>6</sup>.

### - Exclusive breastfeeding for about six months:

The serious lack of immediate post-partum breastfeeding and inadequate quality of exclusive breastfeeding have been noted above. DHS and other data suggest that the practice of delaying first feeding for 24 hours or more is common. In some areas, there is a token discarding of breast secretions (identified as “colostrum” in some reports) in the first few hours. Skin contact with newborns and nursing within the first hours is not encouraged. The potential for modifying these harmful practices needs to be explored.

With reference to interventions, in addition to prenatal counseling, the opportunity presented by a significant number of births occurring in health establishments (45 percent, DHS)—including peripheral health posts/centers—needs to be explored. Infant formula is not actively marketed to the general public, and is sold at high prices relative to wages. The Baby Friendly Hospitals Initiative has certified 20 of 25 hospitals targeted for 1996 (see list in Appendix A). Four of the seven major teaching hospitals are not certified, including one of the largest hospitals in Antananarivo. In certified facilities, the quality of counseling of mothers and Step 10—community support for mothers—have been difficult to implement. A new set of 25 hospitals is scheduled for certification in 1996. There is currently no system of monitoring the quality of education/counseling and support for breastfeeding provided in health facilities, either where births occur or where contact is made for immunizations or during sick child visits.

At an interagency coordination meeting during the TDY, a suggestion was made to raise the visibility of BFHI and political commitment by holding a workshop with high level policy-makers. USAID was requested to fund an outside expert with clinical experience in lactation management for high risk neonates, which is the main bottleneck in policies of key teaching hospitals. If this request is followed up by USAID (presumably through the new breastfeeding contract), it is recommended that other key gaps be addressed as well, i.e., systematic monitoring

---

<sup>6</sup> The MICS 96 is expected to add information on infant feeding. The MICS 95 report did not include data on breastfeeding practices or counseling on infant feeding, anemia or iron supplementation for mothers or children. The seven-day recall of Vitamin A food sources is potentially a key contribution and needs to be modified by adding “how many times during the past seven days did the child consume...”.

of quality and coverage in prenatal services and maternities as part of BFHI, strategies to strengthen community partnerships to provide counseling support to mothers after their return from maternities; and curriculum reform.

The importance of supporting curriculum changes for medical schools (4th, 5th and 6th years) and nursing schools cannot be over-emphasized. Several models developed in the U.S., Geneva, LAC and African countries now exist and should be shared with key policy makers. A task force that either begins with infant feeding content or the full set of minimum package interventions will need to be formed. With reference to maintaining the quality of counseling services, introduction of a simple monitoring tool using periodic exit interviews with mothers was also considered an important contribution that BASICS could make as this key initiative (BFHI) gains momentum in Madagascar. Finally, encouragement and support by UNICEF and BASICS to develop a Baby Friendly *Communities* Initiative, starting in catchment areas of progressive BASICS district health centers (rural model) and leading institutions in BFHI (urban model) should be explored. This would be broader than breastfeeding and would include timely referral of sick children, immunizations, and limited perinatal care interventions including nursing within an hour of birth, in addition to breastfeeding and complementary feeding counseling.

APPROPOP/PF is amenable to and interested in adding LAM (lactational amenorrhea method) to its range of methods being promoted and would like to have a LAM advisor join their team. The new centrally-funded breastfeeding project will need to follow up on this.

- **Appropriate complementary feeding starting at 6 months, in addition to continued breastfeeding for 24 months:**

Existing data on this key topic are incomplete and superficial for program priority-setting and planning purposes. Important contributions to the literature include Dr. Colette Rabenja's survey of nutrition KAP among mothers of 1200 infants 6-36 months old in the Toliary and Antananarivo provinces as well as the CRS baseline survey on knowledge and practices of mothers in maternal and child health care and nutrition. (See Appendix B for complete references.) These data and other anecdotal information suggest that the quality of complementary foods (energy and micronutrient densities and bacteriological quality), frequency of feeds, extra feeding after illnesses and continuation of breastfeeding through 24 months, are all potential areas for improvement.

BASICS is planning to conduct household trials using consultative research methods that will focus on feeding behaviors for developing the BCC/IEC strategy aimed at preventing stunting and low weight-for-age in the under two age group. Selected communities in catchment areas of health centers having the capacity to implement community-level activities will be the site for this work. Assets mapping and taking inventory of existing health/nutrition-oriented women's or parents' groups are important first steps. It may be possible to collaborate with UNICEF and follow a similar model in selected BFHI-certified institutions to strengthen community support for breastfeeding mothers in urban areas.

Table 2. Indicators Related to the BASICS Minimum Package of Nutrition Interventions for CS Programs

Indicator	National		BASICS Provinces		Comments
	Urban %	Rural %	Antananarivo %	Fianarantsoa %	
<b>Infants initiating BF after birth:</b> < 1 hour < 24 hours	3.6 36.4	6.7 46.3	4.1 34.8	4.9 56.0	Source: DHS 92
<b>Infants EBF:</b> 0-1 m 2-3 m 4-5 m	53.1 (n=168) 41.7 (n=187) 16.9 (n=240)		NA (small samples)	NA (small samples)	Source: DHS 92. An additional 4-8% infants consume BF with only water; adequacy of EBF (amt.) is unknown.
<b>Children BF and consuming CF:</b> 6- 7 m 8- 9 m 10-11 m	89.8 (n=207) 95.8 (n=172) 89.2 (n=168)		NA (small samples)	NA (small samples)	Source: DHS 92  The quality and quantity of CF are not captured in this indicator.
<b>Children &lt; 24 months consuming green leafy vegetables, yellow vegetables or yellow fruits &lt; 7 days ago</b>	72.3	60.2	72.0	66.7	Source: MICS 95. Adequacy of dietary sources not known, simply that consuming these foods is not taboo. Intake of pre-formed Vitamin A food sources is unknown.
<b>Children &lt; 24 months who recd. Vit. A capsule</b>	2.3	1.1	2.0	1.8	Source: MICS 95. Capsule distribution started after this survey.
<b>Measles cases given 2 doses of Vit. A</b>	NA	NA	NA	NA	National protocol includes only 1 dose, so likely to remain problem
<b>Pregnant women consuming iron supplements</b>	NA	NA	NA	NA	Lack of information indicative of overall lower priority for anemia
<b>Households using iodized salt</b>	0.8	0.6	0.6	0.3	Source: MICS 95. Iodinization was initiated after the survey.

Table 3. Programs and Policies Related to BASICS Minimum Package of Interventions

Interventions	Policy Developed	National Leadership	Donors	Tech., financial resources	Coverage, quality	Sustainability
Exclusive breastfeeding for about 6 months	Yes. Recent legislation on infant formula marketing includes promoting EBF till about 6 months.	No broad-based group charged with policy & advocacy.  Chief govt. counterpart: Dr. Bako of MOH's food & nutrition service	Led by UNICEF through assistance to BFHI. Some USAID assistance, mainly DHS & WELLSTART training.  UNICEF contact: Dr. Abdullah Dustagheer	WELLSTART alumni scattered through urban health facilities. Capacity & training in CS services delivery non-existent. Recurrent costs and financing needs and adequacy yet to be assessed.	20 (of > 700) hospitals and maternities certified. No other prg. mech. for counseling & support through prenatal, imm. or well-baby contacts. Quality in BFHI facilities not monitored.	-Curriculum: Minimal teaching in med. schools. - Demand gener.: No national campaigns planned. -Policy monit.: No mech.in place. -Financial: Unclear
BF and CF from 6-24 months	Policy implicit in education materials.	No clear leadership in support of national child feeding strategy. SNA has dev. proposal including clin. trials with malnour. children Chief govt. counterparts: Drs. Hanta and Bako of MOH's food & nutrition service.	UNICEF's NAC projects, World Bank, USAID and NGO community.	Capacity & training in CS services delivery non-existent. Intro. of IMCI now accepted; food box will help introduce counseling at facilities. Recurrent costs and financing of a comprehensive national program yet to be assessed.	No broad coverage outside UNICEF NAC, World Bank and NGO communities.	Same as above

2

Table 3 (contd.)

## Programs and Policies Related to BASICS Minimum Package of Interventions

Interventions	Policy Developed	National Leadership	Donors	Technical, financial resources	Coverage, quality	Sustainability
Adequate Vitamin A intake through capsules and/or food sources	Policy is to promote Vitamin A from food sources country-wide, and universal distribution in 31 high risk VAD districts. Policy includes postpartum dosing; however current 4 week restriction needs to be expanded to 8 weeks per new WHO guidelines.	Dr. Simon in MOH/SNA is leading the effort. No broadly representative micronutrient policy & advocacy group.	UNICEF provides supplies. World Bank will add Vitamin A to its PNA program.	Limited depth in micronutrient area. No formal curriculum or training plans for key health services staff. Recurrent cost needs not assessed.	Monitoring data after program initiation not available; coverage will be estimated in MICS 96.	Pre-service education of health sector personnel does not include micronutrient essentials.  Subsequent MICS likely to help maintain emphasis on contd.implem.
2 doses of Vitamin A for measles	Policy needs revision—should be 2 doses instead of 1	Same as above.	UNICEF supplies	IMCI training & supplies will cover.	IMCI training follow-up will cover.	Will be covered under IMCI.
Iron supplements for pregnant women	Policy is to provide 2 (daily) tablets for 20 days, per pregnancy.	No one person in MOH/SNA handles iron.	UNICEF provides supplies under FIB- Bamako Initiative.	Training assoc. with upgrading prenatal/obstet. services should include.	Should be covered through prenatal/obstet. services.	Needs further work, e.g. pvt sales & promo.
Universal iodized salt consumption	Policy and legislative/regulatory framework in place.	Dr. Hanta of MOH (Director SNA) is the key person.	UNICEF World Bank	Appears adequate at present.	Salt quality monit.sys. being set up. Price differential could hurt coverage.	IDD monitoring should help maintain focus.

- **Two doses of Vitamin A for each measles case:**

The IMCI algorithm will include appropriate Vitamin A supplementation for case management. It is important to bring to the attention of policymakers that current guidelines in Madagascar on Vitamin A supplementation during an episode of measles are inconsistent with international recommendations; the Madagascar policy recommend only one dose whereas international guidelines are for two doses.

- **One Vitamin A dose every six months for all children (over 6 months of age) in Vitamin A deficient areas, including one post-partum dose for women:**

Vitamin A capsules are now being supplied free of charge by UNICEF. The Service Nutrition Alimentation manages the central distribution to all regional health chiefs for district health centers and hospitals in the 31 districts identified as having a significant Vitamin A deficiency (VAD) problem. However, the national supplementation protocol is not clearly understood, nor followed. The current protocol specifies a first supplement at the time of measles vaccination, followed by one more capsule sometime during the ages of 12-24 months. Current international guidelines are to provide a first dose at 6 months followed by six-monthly dosing. Also, one dose is specified for mothers to be given within four weeks postpartum. Guidance from WHO is to extend the safe period of dosing to eight weeks, based on DHS analysis of the probability of conception in this period. This also opens up the possibility of dosing women at the infant's first DPT immunization contact. Finally, not only does the protocol need to be updated, but the implementation of the protocol needs follow-up and monitoring. For example, during a hospital visit in Antsirabe, women were being dosed after four weeks postpartum and continued to receive six-monthly doses until they become aware of a subsequent pregnancy.

The designation of VAD districts based on data of questionable quality is a problem. Only one of BASICS' two focus districts is included and it is likely that both districts have a significant VAD problem (indirect indicators). The survey was conducted by EPI teams, possibly without adequate training. The results indicated extraordinarily high prevalence of VAD. It is unclear what the source of the error is. A cut-off level of 5 percent rather than the WHO cut-off of 1 percent was then used to select VAD districts. At present, a survey using serum retinol and conjunctival impression cytology (CIC), accompanied by a limited food frequency recall, is being considered for funding by WHO, in two regions suspected of high VAD. It is possible that a well-designed, carefully implemented and supervised night-blindness survey of all districts would be more useful for geographic targeting of the supplementation program; however, the decision has been taken to go forward with the blood sample survey.

Dietary modification approaches to improving Vitamin A status through nutrition education and counseling on child feeding (and diet during pregnancy) are worth pursuing. Fortification has been ruled out because of the absence of a centrally-processed food vehicle. If year-round availability of Vitamin A food sources can be confirmed and then successfully promoted through comprehensive BCC including through peripheral health staff, then preventive distribution of

supplements can be phased out of all but the most remote, arid, high risk districts. BASICS household trials and/or community inventory activities should include development of a year-round calendar of Vitamin A food sources that will be acceptable for child feeding and maternal diets during pregnancy.

- **Iron supplements for pregnant women:**

Inadequate supplies of iron supplements in health facilities and in retail pharmacies observed during the TDY need to be confirmed. Actions need to be taken to improve supplies and distribution as well as counseling provided by peripheral health workers. This element could be strengthened in IMCI. Commercial retail sales and advertising appear to be under utilized. Private practitioners may have an important role in demand creation. Low-cost packages of iron supplements may need to be developed. In most pharmacies visited during the TDY, if any prenatal iron product was available at all, it was the more expensive fumarate formulation. Operations research on modifying the current national protocol from one course of 20 daily iron/folate tablets during each pregnancy to a once weekly course of 20 tablets combined with deworming in the last trimester (after confirming high anemia and parasite prevalence) should be undertaken. This is potentially a highly cost-effective strategy for community-level and health facility action, especially if prenatal coverage is as high as reported. The OMNI project with some support by BASICS social marketing experts may be best positioned to follow up on this component.

- **Use of iodized salt by all households in iodine deficient areas:**

Most of the country's population is at risk of iodine deficiency, and BASICS' focus districts are located in areas with severe forms of goiter. The promotion of iodized salt is a high priority for all health programs in Madagascar. With UNICEF (and World Bank) assistance, the Ministry of Health has halved goiter rates through administration of iodized oil capsules during the period 1992-1995. It is unclear whether a shift in strategy to iodized salt will successfully maintain or further reduce goiter prevalence. An estimated 60-70 percent of the national supply of salt comes from a single producer in the northern city of Diego (the Salt Company of Madagascar or CSM), and all of this salt is iodized. Social marketing through radio and newspapers has raised awareness of the importance of using iodized salt; it is not clear whether social marketing will continue. Regulations concerning penalties for selling un-iodized salt have been signed. However, sale of un-iodized salt at approximately 2/3 the price of iodized salt was observed in the markets outside the capital city. Salt testing sites have been established in the towns of Tulear and Fianarantsoa. Additional testing sites will soon be developed in Antsiribe and Diego. This is considered one of the more successful programs in nutrition. The MICS is viewed as a critical component for monitoring household coverage.

## VII. RECOMMENDATIONS ON BASICS NUTRITION ACTIVITIES

The recommended nutrition components of BASICS' work in child survival fall into two categories:

- in-depth work on developing a package of interventions in the two focus **districts**, and
- sensitization, advocacy, and information-sharing at the **national** level.

### 1. In the two BASICS focus districts:

The objective is to strengthen the community linkages to health facilities in two districts where IMCI training and follow-up are to be introduced, for the purpose of addressing the high prevalence of stunting and low weight-for-age. The interventions at community level are expected to emerge from consultative research at the household level and will address feeding practices during and after illness. The process includes participation of regional, district and health center staff in a series of action-research activities and use of BCC (behavior change and communications) approaches. BCC activities are expected to include in-service training, training of community facilitators, design/production/dissemination of education materials and use of media.

#### *Action-research activities:*

- a) Participation of selected health facilities staff in consultative research to identify critical child-feeding and care-seeking behaviors amenable to change.
- b) Taking an inventory of NGOs and other social sector entities (e.g., primary schools, agriculture extension agents) already established in communities within each selected health facility's catchment area. This is for the purpose of developing partnerships to deliver the BASICS BCC package aimed at household and community behaviors related to nutrition and home management and care-seeking behaviors.
- c) Tracking changes in BCC participation, child feeding practices, sick child care practices, and nutritional status through activities identified as appropriate and feasible, such as annual reviews of how well children are growing in each community, and focus groups with women, community organizations, and NGOs. Positive results could be publicized nationwide.

The action-research will be combined with implementation of behavior change activities (including in-service training), and these will be undertaken through the BASICS IEC and IMCI components. In the first year, i.e., FY97, the focus is expected to be preventive maternal/child feeding messages, but as the IMCI trainings are completed in 1998, the IEC component could be

broadened to include care of sick children in facilities and in the community, and appropriate referral to health facilities. For community organizations already engaged in monthly growth monitoring or with the capacity to develop and implement a comprehensive growth promotion initiative, BASICS can provide the technical assistance for assessments and programmatic guidelines; this may be phased in towards the latter part of BASICS' current contract period.

## **2. BASICS' role in nutrition at the national level:**

The objective is to maximize the impact of BASICS' technical resources and presence in Madagascar. The expected outcomes include:

- improved/up-to-date policies on nutrition minimum package areas;
- adoption of nutrition minimum package interventions as part of the child survival strategies of MOH (central and district levels), and by UNICEF, World Bank, CRS, CARE and Peace Corps; and
- revised medical, nursing, public health, and nutrition curricula to reflect current model curricula developed by WHO, UNICEF, OMNI and WELLSTART. This may be undertaken either in advance of or as follow-up to the proposed IMCI curriculum work.

Actions to be undertaken by BASICS include:

- a) Sensitization, motivation and information aimed at national and other agency counterparts in key positions using the following mechanisms:
  - raising concerns and suggesting improvements regarding interventions associated with the minimum package of nutrition interventions at appropriate policy and strategy meetings;
  - providing specific feedback from the two BASICS districts regarding current status of minimum package-related actions and implementation of national policies;
  - forwarding requests for technical experts in breastfeeding/LAM (to the new breastfeeding project) and micronutrients (to OMNI);
  - providing papers, publications, tools from BASICS, the new breastfeeding project, OMNI, MACRO International, Mothercare, etc. to key counterparts; and
  - distributing a nutrition (minimum package) newsletter that would include brief reports on actions being taken by various entities at national and district levels, results of new studies, conclusions of meetings, forthcoming local, national and international meetings, conferences, etc.

- b) Invite key counterparts to participate in action-research activities implemented in the two BASICS focus districts.
- c) Facilitate the appropriate utilization and management of other centrally-funded USAID nutrition projects listed under a) above. For example, consultants may be requested to:
  - participate in national workshops aimed at upgrading protocols (e.g., high risk neonates and breastfeeding in BFHI);
  - provide guidance on implementation (e.g., Vitamin A and iron supplements);
  - provide technical assistance and materials on curriculum;
  - develop monitoring systems for BFHI; and
  - assess iron supplements supplies and distribution.

Because of the work already identified as high priority for BASICS (e.g., district-level work with community organizations and nutrition action-research in addition to IMCI), it may be preferable to address this need after an initial 6-12 months of start-up nutrition activities.

Another option is to have UNICEF be the focal point and manager of all non-BASICS nutrition technical assistance in terms of scheduling, logistics arrangements, and follow-up. USAID's Africa Bureau has given a child survival grant to UNICEF, and BASICS/HQ could work with UNICEF/NY to consolidate a close collaboration between BASICS and UNICEF. The purpose of this is to fill a critical need in technical support that other donors are clearly not providing, but prevent management overload at the USAID Mission and for the small BASICS team in-country.

### **3. Recommended direction and next steps related to minimum package interventions**

In summary, the following illustrative table provides the Mission with recommendations for future action, based on the author's observations. Recommendations need to be refined by the Mission following input by the new breastfeeding project and by the OMNI project after its upcoming technical assistance visit.

**TABLE 4: RECOMMENDED DIRECTIONS AND NEXT STEPS RELATED TO MINIMUM PACKAGE INTERVENTIONS**

<i>Actions related to interventions</i>	<i>Policy, advocacy, donor coord.</i>	<i>Technical &amp; financial resources</i>	<i>USAID inputs (est. \$)</i>	<i>Services delivery: coverage quality</i>	<i>Sustainability (capacity building, institutions, etc)</i>
<b>EBF 6 months:</b> 1. IEC strategy development including community outreach	BASICS, new BF* (10/96-8/97)	BASICS, UNICEF, new BF	Formative res., materials, TA	BASICS in 2 distr. including monit. beh. impacts; CARE, CRS nationally	new BF, CARE, CRS, UNICEF
2. Curriculum revision in medical, nursing schools	BASICS, WELLSTART/ new BF (10/96-8/97)	WELLSTART/ new BF	TA, materials	NA	WELLSTART/ new BF
3. BFHI quality monitoring instituted	BASICS, WELLSTART or new BF (10/96-8/97)	WELLSTART/ new BF	TA, funds	UNICEF, new BF	UNICEF, new BF
4. LT LAM advisor in APPROPOP	APPROPOP (now)	new BF	LT advisor, 12-18 months	APPROPOP	APPROPOP
5. National workshop on BF/BFHI	UNICEF, BASICS (now)	UNICEF/ new BF	TA, materials	NA	UNICEF

25

<i>Actions related to interventions</i>	<i>Policy, advocacy, donor coord.</i>	<i>Technical &amp; financial resources</i>	<i>USAID inputs</i>	<i>Service delivery: coverage quality</i>	<i>Sustainability</i>
<b>BF and CF from 6-24 months:</b>  1. Household trials: develop. compl. fdg. guidelines  2. IEC strategy development including IMCI & community outreach  3. Curriculum revision in medical, nursing schools  4. Quality & coverage monitoring	BASICS, UNICEF  BASICS, UNICEF  BASICS, WELLSTART or new BF  BASICS & new BF	BASICS  BASICS, UNICEF, new BF  WELLSTART/new BF  BASICS, new BF, UNICEF (MICS)	TA: 18 PW* in 3 trips  TA: 10 PW, materials  TA: 10 PW, materials, local costs  TA: 6 PW, local costs	NA  BASICS in 2 dist., CARE, CRS  NA  BASICS HH surveys & formative res. in 2 dist.	BASICS (provide training)  new BF, CARE, CRS, UNICEF  WELLSTART/new BF  new BF, CARE, CRS, UNICEF

26

<i>Actions related to interventions</i>	<i>Policy, advocacy., donor coordination</i>	<i>Technical &amp; financial resources</i>	<i>USAID inputs</i>	<i>Services delivery: coverage quality</i>	<i>Sustainability</i>
<b>Vit. A through capsules and/or food sources:</b>  1. Review, revise and implementn. of Vit. A supplt. protocols  2. Assessment and dev. of food-based strategy, including IEC  3. Coverage or status monitoring	UNICEF, OMNI, BASICS for 2 dist.  UNICEF, OMNI  OMNI, UNICEF	BASICS for 2 dist., OMNI  OMNI, UNICEF  OMNI, UNICEF, WHO	TA, materials  TA, formative res., eval.  TA, local survey & analysis costs	OMNI, BASICS in 2 dist., CARE, CRS  OMNI, BASICS in 2 dist., CARE, CRS  OMNI, BASICS in 2 dist., CARE, CRS	OMNI, UNICEF, CARE, CRS  OMNI, UNICEF, CARE, CRS  OMNI, UNICEF, CARE, CRS
<b>2 doses of Vitamin A for measles:</b>  1. As part of IMCI  2. Community level strategy dev. & test.	BASICS, WHO  OMNI, WHO, UNICEF	BASICS  OMNI, UNICEF	none  TA, training, eval. costs	BASICS  OMNI, UNICEF, BASICS in 2 dist.	WHO, UNICEF, BASICS  OMNI, UNICEF

<i>Actions related to interventions</i>	<i>Policy, advocacy, donor coord.</i>	<i>Technical &amp; financial resources</i>	<i>USAID inputs</i>	<i>Services delivery: coverage quality</i>	<i>Sustainability</i>
<b>Prenatal iron:</b>					
1. Anemia, helminths, prg. coverage, and quality assessment	OMNI, UNICEF, WHO	OMNI, UNICEF	TA, survey & analysis costs	OMNI, UNICEF, CARE, CRS	OMNI, UNICEF, WHO, CARE, CRS
2. Dev. CBD* & IEC strategy for iron & deworming	OMNI, UNICEF, WHO	OMNI, UNICEF	TA, training, other local costs	OMNI, UNICEF, CARE, CRS	"
3. Supplies assess. & plan	"	OMNI, UNICEF	"	OMNI, UNICEF	"
<b>Iodized salt:</b>					
1. Quality control	UNICEF, OMNI, World Bank	UNICEF, OMNI	TA, local costs	UNICEF, OMNI	UNICEF, OMNI
2. Monitoring system	"	"	TA, survey & analysis	"	"
3. IEC strategy	"	"	"	"	"

28

<i>Actions related to interventions</i>	<i>Policy, advocacy, donor coord.</i>	<i>Technical &amp; financial resources</i>	<i>USAID inputs</i>	<i>Services delivery: coverage quality</i>	<i>Sustainability</i>
<b>Other:</b>					
1. Information dissemn.	BASICS, UNICEF	BASICS, OMNI, new BF	TA, materials	NA	BASICS, OMNI, new BF, UNICEF
2. Staff support to SNA	OMNI, new BF	OMNI, new BF	local hire salary etc.	NA	UNICEF, World Bank
3. Ops. research.	"	BASICS, OMNI, new BF	TA local costs	NA	"

\* New BF is the follow-on WELLSTART/EPB project, expected to start up in late 1996. CBD = community-based distribution, PW= person weeks

**APPENDICES**

**APPENDIX A**

HOPITAUX CIBLES EN 1995

HOPITAL	LABEL HAB DECERNE	RE-EVALUATION PLANNIFIEE/FAITE	REMARQUES
<b>PROVINCE D'ANTANANARIVO</b>			
1. HOPITAL GENERAL DE BEFELATANA		DEC 95	LABEL NON-DECERNE
2. CHU JRA AMPEFILOHA	AOUT95	SUIVI FAIT MAI96	- Groupe de soutien avec ONG ANYMA
3. HOP. MILITAIRE DE SOAVINANDRIANA			LABEL NON DECERNE
4. CHD ITAOSY	DEC 95	SUIVI FAIT MAI96	
5. CLINIQUE DES SOEURS ANKADIFOTSY	AOUT95	SUIVI FAIT MAI96	- 1 mère séparée de son bébé extrait son lait (couveuse) - existence de banque de lait
6. MATERNITE OSTIE (ANOSIBE)	AOUT95	SUIVI FAIT MAI96	- CPN au dispensaire - Vu une mère donnant du thé à son bébé - Groupe de soutien à l'OSTIE Ambohimanana
7. CHD ANTSIRABE	FEV 96		
8. HOP LUTHERIEN (ANTSIRABE)	FEV 96	SUIVI FAIT JAN96	
9. CLINIQUE AVE MARIA (ANTSIRABE)	FEV 96	SUIVI FAIT JAN96	
<b>PROVINCE DE FIANARANTSOA</b>			
10. CHD MANAKARA	MARS 96		
11. CHD IHOSY	NOV 95		
12. CHD FIANARANTSOA			LABEL NON DECERNE
<b>PROVINCE D'ANTSIRANANA</b>			
13. CHR ANTSIRANANA	DEC 95		
14. MATERNITE TANAMBAO	DEC 95		
15. CHD ANTALAHA			LABEL NON DECERNE
16. CHD NOSY-BE	AVRIL96		
<b>PROVINCE DE TOLIARY</b>			
17. CHU TOLIARY	OCT95		
18. CHD TOLAGNARO	FEV96		
<b>PROVINCE DE MAHAJANGA</b>			
19. CHU ANDROVA (MAHAJANGA)	MARS96		
20. CHD MAEVATANANA	MARS96		
<b>PROVINCE DE TOAMASINA</b>			
21. CHR TOAMASINA			LABEL NON DECERNE
22. CHD MORAMANGA			Reévalué Fev96: manque les conditions no 1,2,3,4. Label non decerne
23. CHD AMBATONDRAZAKA	FEV 96		
24. CHD VATOMANDRY	DEC 95		
25. CHD MAROANTSETRA	NOV95		

HOPITAL	LABEL HAB DECERNE	RE-EVALUATION PLANNIFIEE/FAITE	REMARQUES
26. CHD BRICKAVILLE	DEC 95		
<b>TOTAL</b>	<b>20 HOPITAUX</b>		

F:\UNICEF\NUTRITN\SUIV\NHAB96.SVI

### NOUVEAUX HOPITAUX CIBLES EN 1996

HOPITAL	LABEL DECERNE	DATE EVALUATION/SUIVI	REMARQUES
PROVINCE D'ANTANANARIVO			
1 CHD MIARINARIVO		AOUT96	
2 CHD ANKAZOBE		AOUT96	
3 CHD MANIAKANDRIANA		JUILLET96	
4 CHD TSIROANOMANDIDY		SEPTEMBRE96	
5 CHD BETAFO		SEPTEMBRE96	
6 CHD ANJOZOROBE		SEPTEMBRE96	
PROVINCE DE FIANARANTSOA			
7 CHD VOHIPENO		JUILLET96	
8 CHD FARAFANGANA		JUILLET96	
9 CHD AMBOSITRA		AOUT96	
10 CHD AMBATOFINANDRAHANA		AOUT96	
PROVINCE DE TOAMASINA			
11 CHD AMPARAFARA VOLA		AOUT96	
12 CHD FENERIVE EST		AOUT96	
13 CHD SAINTE MARIE		SEPTEMBRE96	
14 CHD IMERIMANDROSO		AOUT96	
PROVINCE D'ANTSIRANANA			
15 CHD AMBANJA		SEPTEMBRE96	
16 CHD AMBILOBE		SEPTEMBRE96	
17 CHD SAMBAVA		SEPTEMBRE96	
PROVINCE DE TOLIARA			
18 CHD BETIOKY		SEPTEMBRE96	
19 CHD BEZAHA		SEPTEMBRE96	
20 CHD MORONDAVA		AOUT96	
21 CHD MIANDRIVAZO		AOUT96	
PROVINCE DE MAHAJANGA			

22. MATERNITE MAHABIBO		JUILLET96	
23. CHD MAROVAY		AOUT96	
24. CHD PORT BERGE		AOUT96	
25. CHD ANTISOIHY		SEPTEMBRE96	

**APPENDIX B**

## APPENDIX B: REFERENCES

BASICS Country Activity Plan for Madagascar, 1994-1996.

BASICS/PCI/Min.San. Enquête auprès des établissements de santé sur la prise en charge de l'enfant malade. Resultats préliminaires. 2 Mai 1996.

Catholic Relief Services. Food Assisted Child Survival Project (Project No. 656-95-003). Part A: Technical Application. Revised Nov. 20, 1995

Catholic Relief Services. Survey on Knowledge and Practices of Mothers in Maternal and Child Health Care and Nutrition (KPC). Feb. 27, 1995.

Institut National de la Statistique. Enquête par grappes à indicateurs multiples: rapport préliminaire. [Multiple Indicators Cluster Survey (MICS)]. Madagascar 1995. INSTAT/UNICEF. Février 1996.

Macro Intl. ENDS/DHS, 1992. CNRE/Min.RAD and Macro International.

Payne, Carol. USAID/POP. Management Contract with SO Core Team. March 18, 1996. Antananarivo, Madagascar.

Pelletier DL et al. The effects of malnutrition on child mortality in developing countries. April 13, 1994. Cornell University Food and Nutrition Policy Program. Mimeo.

Rabenja, Colette. Enquête CAP sur l'allaitement maternel, l'alimentation du jeune enfant et de la femme enceinte et évaluation de l'état nutritionnel des enfants dans les Faritany de Toliary et d'Antananarivo. Projet SECALINE/PNSAN/UNICEF. January 1994.

UNICEF. Analyse de la Situation des Enfants et des Femmes à Madagascar. 1994.

UNICEF. Plan d'Action National 1996. Projet Nutrition à Assise Communautaire. Min.San, Min.Ag., Min. Recherche Appliquée au Développement. Janvier 1996.

UNICEF. Enquête par grappes à indicateurs multiples. Multiple indicators cluster survey (MICS). Madagascar June-July 1995. Feb. 1996.

World Bank. "Aide Memoire: Mission d'Identification du Projet Programme Communautaire de Nutrition (PCN)".