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ASSESSMENT SERIES



WELLSTART
INTERNATIONAL SM

**AN ASSESSMENT
OF
INFANT FEEDING
IN OYO, OSUN, AND PLATEAU STATES**

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ANNEX **Monthly record of state growth monitoring and promotion in the district/LGA**



ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ARHEC	African Regional Health Education Center
ARI	Acute Respiratory Infections
BFHI	Baby Friendly Hospital Initiative
CBA	Church-Based Attendant
CDC	Center for Disease Control
CDD	Control of Diarrheal Disease
CHAN	Christian Health Association of Nigeria
CHEO	Community Health Extension Officer
CHEW	Community Health Extension Worker
CHO	Community Health Officer
CEU	Continuing Education Unit
COCIN	Church of Christ in Nigeria
EPB	Expanded Promotion of Breastfeeding Program (Wellstart International)
EPI	Expanded Program of Immunization
FMOH	Federal Ministry of Health
GM/P	Growth Monitoring and Promotion
HIS	Health Information System
IEC	Information, Education and Communication
JUTH	Jos University Teaching Hospital
KAP	Knowledge, Attitudes, and Practices
LGA	Local Government Area
LSS	Life Saving Skills
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
NCCCD	Nigerian Combatting Childhood Communicable Diseases Project
NDHS	Nigerian Demographic and Health Survey



NGO	Non-Governmental Organization
OAUTHC	Obafemi Awolowo Teaching Hospitals Complex
PHC	Primary Health Care
SBE	State-Based Epidemiologist
SD	Standard Deviation
SMOH	State Ministry of Health
SSS	Oral Rehydration Solution
TALC	Teaching Aids at a Low Cost
TBA	Traditional Birth Attendant
VHW	Village Health Worker
UCH	University Teaching Hospital
UNFPA	United Nations Family Planning Agency
UNICEF	United Nations Children's Fund
WHO	World Health Organization



I. INTRODUCTION

Since 1991, the Nigerian Combatting Childhood Communicable Diseases (NCCCD) Project has been assisting nine States in Nigeria to strengthen their Primary Health Care (PHC) programs. NCCCD builds on the earlier CCCD project (1986-1991) and includes an expanded focus on nutrition. To assist in the development of technical components, the NCCCD project plans to draw upon USAID contractors with expertise in varied areas including exclusive breastfeeding and weaning promotion, maternal nutrition, and micro-nutrients. Consequently, Wellstart International's Expanded Promotion of Breastfeeding (EPB) Program joined the NCCCD Nutrition Advisor to assess breastfeeding and weaning in selected States and to design a program for improving infant feeding in two NCCCD focus Local Government Areas (LGAs). From January 31-February 24, 1994, the team visited Oyo, Osun, Plateau and Lagos States. Information on infant feeding was obtained through a literature review, interviews with health care administrators and providers in the States and NCCCD focus LGAs, observations at health facilities and within communities. In Lagos, the team mainly met with key policy makers within the Federal Ministry of Health and Social Services and the National Primary Health Care Agency; with other donor agencies including United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) and with the NCCCD State-based Epidemiologist. The team's major findings are described followed by specific observations from the States visited. The results provided the basis for designing a program for improving infant feeding for Osun and Plateau States and the corresponding NCCCD focus Local Government Areas (Ife-Central and Barkin Ladi). A description of the proposed program, and workplans for the two States are available.

II. BACKGROUND

Socio-Demographic Characteristics

Nigeria, with a population of 88.5 million (1991 census), is the most populous country in Africa. The more than 300 ethnic groups have significant differences in culture, beliefs, and practices which influence feeding practices. Predominant ethnic groups are Edo, Efik, Fulani, Hausa, Igbo, Kanuri, Tiv, Urhobo, and Yoruba and tend to be concentrated in different regions. More than 70% of the population live in the rural areas where social amenities, educational and income levels are generally lower than in the urban areas. The literacy level is low, especially among females (39% females, 51% males)¹ and adversely influences health-seeking behaviors. Administratively the country is divided into three tiers-- Federal, State (30), and LGA (593).

Fertility, Infant Morbidity and Mortality

Information provided by the 1990 Nigerian Demographic and Health Survey (NDHS) on fertility, infant mortality, child morbidity and nutritional status of children under five years revealed high levels of child malnutrition, diarrhea, and mortality as well as suboptimal breastfeeding practices. The infant mortality rate was 87/1000 live births occurring five years before the survey, having fallen from 98/1000 in 15 years. Eighteen percent of children under five had had diarrhea in the previous two weeks, including a high prevalence of cases in children under six months (12%). The diarrhea rate was highest in children 12-23 months (29%). The total fertility rate for women 15-49 years is 6.0, and current contraceptive use for married women is only 6% (13% for non-married women). These levels of diarrhea, fertility and modern contraception all suggest that *optimal* breastfeeding could enhance further the role breastfeeding plays in improving maternal and child health.

¹World Bank. World Development Report, 1993.



Women's Work

Women's work patterns have an impact on the time they have available for child care and feeding. There is little information on labor patterns in the country. A 1985/86 survey conducted by the Federal Office of Statistics showed that most females worked outside of the formal economic sector. In the urban areas 17% of females were employed in the civilian labor force (compared to 36% of males), of which 48.4% were in sales, 17% were in production, transportation and related work, 14% were in service, and 10.7% were in professional and technical areas. In the rural areas, 16% of females were employed in the labor force, 27% of whom were in sales, and 9% were in service. Twenty-eight percent of urban and 36% of rural women were reported to be home makers spending most of their time providing child care and doing domestic work.² This information would suggest that most women are engaged in some economic activity outside the home. The formal work environment is typically inhospitable to child care and breastfeeding (beyond the three months paid maternity leave that women are allowed). Even in the informal sector where women can usually have their babies with them, the work environment, such as a market, does not offer convenient or healthy surroundings for proper child care.

Infant Feeding Practices

The NDHS shows that while almost all women initiate breastfeeding (97%), optimal breastfeeding is rare. Exclusive breastfeeding is almost non-existent. Mothers routinely give water to babies, and many begin supplements early (38% of children zero to one month of age are already receiving supplements other than water). At the same time 17% of children 12-13 months of age are reported to be fed breastmilk and water only. Colostrum is widely discarded and prelacteal feeding of water, glucose and other concoctions are common. By one month of age 36% of the children are bottle fed. The mean duration of breastfeeding is reasonably long at 19.5 months with 24.0 months in rural areas, 15.3 months in urban areas.

Weaning is a hazardous period for infant's health in Nigeria. In general, the weaning process is initiated far too early by many mothers while the foods offered are inadequate to support the child's growth. The most common weaning food is a watery pap made from corn or millet, which many mothers feed until the infant is a year old. In Kwara State, researchers found that mothers believe children should not be given solid foods within the first year of life because this would retard their development and make them "heavy".³ Instead they give the very watery cereal porridges or "pap" which has an extremely low nutrient density (approximately 20 kcals per 100 grams).⁴ Most mothers prefer to hand feed, which is easier and quicker to do with a watery pap.

Food Availability and Consumption

The amount and type of food available has an obvious influence on feeding practices. Different climatic patterns and soil types in turn influence food production and consumption patterns. The southern savannah and rainforest zones generally rely on root and tuber crops such as cassava and yam, while the northern drier zones depend mostly on cereals, such as sorghum, millet and pulses. In recent years corn and rice have been gaining in popularity all across the country.⁵

²Children and Women in Nigeria. A Situation Analysis 1990.

³Bentley, M.E. et al, "Development of a Nutritionally Adequate and Culturally Appropriate Weaning Food in Kwara State, Nigeria: An Interdisciplinary Approach." *Social Science Medicine* (1991) 33, vol 10:1105.

⁴Ibid.

⁵International Conference on Nutrition: Country Report Nigeria, December 1992.



Food supplies are reported to have fallen in the last two decades, although up to 75% of Nigerians work in agriculture.⁶ Daily per capita energy intake is estimated to be 89.6% of requirements. Population pressure, soil depletion, and over-grazing are reportedly affecting food production in many areas. Food storage and preservation facilities are inadequate and unable to cope with seasonality of food supplies. In the northern areas where rainfall is concentrated in one season, food shortages are marked in the preharvest season. At one residential Nutrition Rehabilitation Center the team visited in Plateau State, the attendant said the center is often filled to capacity with malnourished children during the preharvest period. Unfortunately, young children are often not fed all of the food available in the home for fear that they are not ready for the foods, making them even more vulnerable to malnutrition.⁷

Child Nutritional Status

Poor feeding habits and frequent illnesses are reflected in the very poor nutritional status of the preschool child. Overall, the NDHS found that 43% of children under five are stunted (fall 2 standard deviations (SD) below the mean NCHS/CDC/WHO for height-for age), 9% wasted (-2SD weight-for-height) and 36% underweight (-2SD weight-for-age). To reduce such high levels of child malnutrition, programs need to motivate caretakers to make changes in long held habits of child care and feeding.

III. HEALTH SERVICES

The health services are organized into a three-tier system similar to the civil administrative structure - Federal, State, and Local Governments. The Federal Ministry is responsible mainly for policy formulation, some national-level training, and oversight of the tertiary hospital centers. The States are responsible for training, supervision, and monitoring, and the management of a secondary district of hospitals. The LGAs provide primary health care (PHC) services.

The PHC health facilities include comprehensive health centers, health centers, clinics, and health posts. Primary health care staff include: midwives, nurses, Community Health Officers (CHOs), Community Health Extension Officers (CHEOs), Junior CHEOs, Health Assistants, and Community-Based Workers (village health workers (VHWs), traditional birth attendants (TBAs), and market based distributors). PHC services include the major child survival interventions (CDD, Expanded Program of Immunization (EPI), Acute Respiratory Infections (ARI), prevention and management of malaria, growth monitoring, family planning) as well as the essential drugs program through the Bamako Initiative.

Referral systems between the different levels of health services are generally poor, except where special donor inputs have provided resources and training to facilitate communication between the different levels of health services.

Health care is also provided by traditional health providers in the community. For example, only 31% of deliveries occur in a health facility. A cadre of village health workers, including TBAs, have been trained in various States to extend the formal health care into the community. In some localities these VHWs are very active and function well, and are probably motivated by the opportunity to keep a percentage of the profits of the drugs they sell to patients. When the PHC infrastructure is established and functioning, it can provide an opportunity to work with communities, using VHWs, who can be monitored and supervised.

⁶International Conference on Nutrition. Country Report Nigeria, December. (Reference to be elaborated in final version.)

⁷DMD, Bentley.



IV. POLICY

Since PHC is recognized as the cornerstone of health policy in the country, the National Nutrition Policy-Health Sector is designed to fit within the PHC framework and includes the mobilization and empowerment of communities to be able to assess their own food and nutrition status, as well as take appropriate remedial actions.⁸ Major policy actions taken at the national level include:

- Formulation of a draft proposal for a National Breastfeeding Program for breastfeeding promotion at all levels of health care in 1986.
- Household food security activities in five pilot LGAs, commenced in 1986 in collaboration with UNICEF.
- Development of a National Code of Ethics for the Marketing on Breastmilk Substitutes, also in 1986.
- Launching of a National Growth Chart, the development of Guidelines for Growth Monitoring and Promotion, and the organization of the first national training course in 1987.
- Promulgation of a Decree on the Code of Ethics on Marketing of Breastmilk Substitutes in 1990.
- Participation in the UNICEF-led Baby Friendly Hospital Initiative (BFHI) as one of the 12 lead BFHI countries in 1991.

While these actions demonstrate a national desire to address the problem of child malnutrition, policies have not always been enforced and acted upon, sometimes due to forces beyond health policy makers' control. Several examples of this lack of follow-through include:

- Although a national workshop was convened to draft a National Breastfeeding Policy in June of 1992, this policy has not been finalized and passed.
- The series of training courses on growth monitoring and promotion, launched in 1987, has not been completed. Thousands of scales ordered for the growth monitoring effort are still in storage pending the training of health workers.
- Many of the health personnel interviewed during this assessment, including some high level personnel, were not aware of the 1990 Decree on the Marketing of Breastmilk Substitutes.
- In 1991, WHO supported a review of the monitoring of the Code of Ethics on the Marketing of Breastmilk Substitutes.⁹ Most of the review's recommendations have not been implemented, including dissemination of the Code to the mass media and all levels of the health care system, and NGOs, and improved monitoring of the Code.

Monitoring of the Code on Marketing of Breastmilk Substitutes

Although the Nigerian Code on the Marketing of Breastmilk Substitutes was drafted in 1986 and a Federal Decree enacted in 1990, there are no provisions for monitoring of the Code. Apparently this has resulted in a gradual erosion of the articles and spirit of the Code. The team found that a baby food manufacturing company has been offering seminars on breastfeeding to health workers. Following the seminar, the company's products are distributed to the health workers. Calendars adorned with pictures

⁸National Nutrition Programme Health Sector. FMOHHS, 1992.

⁹Nigeria Country Report on A Common Review and Evaluation Framework For the Assessment of National Action Taken to Give Effect to the Aim and Principles of the International Code of Marketing of Breastmilk Substitutes, 1991.



of the company's numerous brands of baby cereals and their logo are also given out. At one clinic the team was told that the give-aways included cans of infant formula. On some walls, the only posters visible were those provided by the company. Health workers did not appear to recognize the subtle pressures being placed on them to recommend the company's products or that the display of pictures of infant formula on their walls could weaken the breastfeeding practices of their clients. To help counteract these marketing practices, the National Breastfeeding Policy should be finalized and distributed to the States along with a copy of the Code. This would raise health workers' awareness and foster positive changes in health practices. A second critical step is to establish effective monitoring of the Code and to pursue infractions against it.

Maternal and Child Health Policy

In the current draft of the maternal and child health (MCH) policy, breastfeeding promotion is one of the priority activities. The draft policy, yet to be adopted, proposes four months maternity leave with one hour off during the work day for breastfeeding until the baby is one year old. Promotion of BFHI, creches, and community-based breastfeeding support are all among the strategies suggested for improving breastfeeding practices. These actions would support exclusive breastfeeding for at least four months for women in the formal sector.

V. CURRENT ACTIVITIES TO IMPROVE INFANT FEEDING

Interventions to improve child nutritional status are being implemented within both the public and private health systems (such as the Church-based health services) but efforts are fragmented. National policy actions have taken place but there has been no focused national program. Since the launching of the BFHI, there has been very limited promotion through the mass media. Clinic-based health education is the common method for passing information to mothers, yet most health workers do not have updated information on infant feeding nor the skills to help mothers when they have problems or questions about breastfeeding or complementary feeding.

Nigerians have long recognized that there is a need for a locally formulated nutritious weaning food that is acceptable to people. There are many different recipes for enriching the local pap with high protein foods such as legumes and fish which have been promoted in Nigeria. In the late 1980s, through the USAID-supported Dietary Management of Diarrhea project in Ilorin in Kwara State developed one such recipe. The ingredients of this weaning food were corn paste, cowpea flour, palm oil, sugar, water and malt flour. The resulting food, called "eko-ilera" was developed with input from mothers. Other mothers were recruited to teach the recipe in their community. The rates of adoption varied from 16.6% and 62.5% (depending on the number of criteria used to measure acquisition of the new behavior).¹⁰ Reportedly, eko-ilera is still well-known and utilized in the State (Fagbule, informal interview).¹¹ The lessons learned from this research will be used to design appropriate community-based weaning food promotion.

¹⁰Guptill, K. S., "Dietary Management of Diarrhea Pilot Intervention Evaluation: A Summary of Findings", July 17, 1989.

¹¹Bentley, M.E. et al, "Development of a Nutritionally Adequate and Culturally Appropriate Weaning Food in Kwara State, Nigeria: An Interdisciplinary Approach." Social Science Medicine (1991) 33, vol 10:1109.



The Baby Friendly Hospital Initiative (BFHI)

Since being launched in 1991, eight Teaching Hospitals out of 13 have been declared Baby Friendly, and a National BFHI coordinator has been appointed. The team visited three out of the eight hospitals and encountered hospital administrators and practitioners who are very enthusiastic about BFHI, and are working to maintain the activities they have put in place. With financial support from UNICEF the hospitals have drawn up programs to train health workers outside of their own institutions. UNICEF is planning further activities to extend training beyond the teaching hospital level. Specific BFHI activities are described below under the descriptions of the activities of the various States.

Unfortunately, there appeared to be a lack of sufficient national publicity for the Initiative and sufficient in-service training since many health workers had not heard of "BFHI," even when there was a BFHI hospital within their own city. Wherever possible, the trainers at the BFHI hospitals can be utilized as a training resource for other health service levels.

Integrating breastfeeding into other health care services

Although infant and young child feeding intervention activities are conducted at the clinic level within the integrated primary health care services, there are some "nutrition clinics" where the emphasis is on growth monitoring and nutrition education. These "clinics" take place on days that are set aside for nutrition activities, but these clinics are few in number. Within the diarrheal diseases control program, the emphasis is on combatting dehydration through the use of home-made salt-sugar solutions. Mothers are also encouraged to continue breastfeeding and to give other appropriate foods during diarrhea, but this counseling component is not always carried out. In other relevant programs such as family planning and immunization, the role of breastfeeding is not generally discussed. In the Family Health Services (FHS) Project (a family planning project funded by USAID) optimal breastfeeding as a family planning method is not discussed and the mini-pill is not even available for breastfeeding mothers, to minimize the inhibiting effect of oral contraceptives on breastfeeding.

The USAID-funded MotherCare project has been upgrading midwifery services in three States (Oyo, Osun and Bauchi) through midwife training in Life Savings Skills. During the past eighteen months, this program has not yet addressed optimal breastfeeding issues although there are plans to develop a breastfeeding component in the next project phase.

Information, education, and communication (IEC)

National-level multi-media IEC activities on maternal and child health have concentrated mostly on immunization, control of diarrheal diseases, and family planning. Infant and young child feeding has not been the specific focus of a major IEC effort. Breastfeeding and weaning education (together with other maternal and child health issues) is communicated during talks to groups of mothers waiting to be seen at the health facilities. Most health facilities select a different topic for each day which may or may not include infant feeding guidance. The information on child feeding thus reaches only some of the clinic users. Consequently there is a need to develop wider-reaching IEC programs for infant and young child feeding.

Monitoring and evaluation

As part of the national Health Information System (HIS), health providers at clinics are required to collect and report data on a large number of diseases (such as malaria, anemia), symptoms (cough, diarrhea) and on specific services such as family planning and immunization. Monthly records of growth monitoring, where performed, is compiled and includes the total number of children weighed by age group. The number of children gaining, losing, or not changing weight is also tallied but not by age group (Annex). While much of the growth monitoring information is interesting, it is not all useful and the form could be redesigned and shortened to help guide health care providers. Breastfeeding and weaning practices data are not included in the HIS.



IV. TRAINING

The State is responsible for both pre-service and in-service training of paramedical personnel. Each State has a School of Health Technology which trains Community Health Officers (CHO); Environmental Health Officers, Pharmacy Assistants, Medical Laboratory Technicians, Medical Laboratory Assistants, Community Health Extension Workers (CHEWs), and Assistant Health Records Officers. The curricula needs to be strengthened with updated information on infant feeding, especially breastfeeding. In the States currently assisted by NCCCD, Continuing Education Units (CEUs) have been established for in-service training of LGA level trainers in the primary health care system. Currently, the CEU uses an 11-module training scheme developed by the Federal Ministry of Health. Another module will be prepared on breastfeeding and weaning to support the proposed program.

VII. OYO STATE

Background for Southwest Region (Oyo and Osun States)

A. Socio-economic status

Oyo and Osun States are located in the Southwest region of Nigeria, the most urbanized region of the country. Many of the personnel found in Osun State therefore used to work for the combined State. In the NDHS, 56% of the mothers in the southwest lived in an urban setting while only 12-14% of the mothers from the other three zones lived in urban areas.¹² Even within this urban environment, 22% of the mothers had no formal education, 36% had primary education, and 42% had secondary education. In the rural areas, the corresponding figures were 44%, 31%, 19%.¹³ The majority of mothers (73%) work away from home in both the urban and rural areas.¹⁴

B. Nutritional status, breastfeeding, and complementary feeding practices

In spite of the relatively higher levels of urbanization and education among women in the southwest region, the nutritional status of children from 0-59 months is poor with 33% stunted, 3% wasted and 3% both stunted and wasted.¹⁵ The 1990 NDHS showed that stunting and wasting begins early in the first year of life and 17.3% are stunted or wasted from zero to five months. Among children 6-12 months, 31.4% are stunted or wasted and 2% are both stunted and wasted.

This early decline in nutritional status is probably linked to suboptimal breastfeeding practices. Forty-one percent of the mothers do not feed colostrum, and exclusive breastfeeding is rare. Although almost all mothers do initiate breastfeeding, timing of initiation is delayed. Seventeen percent of infants are put to the breast within an hour of birth and only an additional 43% begin within the first 24 hours.¹⁶ Less than 2% of infants are exclusively breastfed even in the first four months, and 14% receive only

¹²"Nutrition and Health Status of Young Children in Nigeria, Findings from the 1990 Nigeria Demographic and Health Survey", Atinmo et al, Sept. 1993, pg. 56.

¹³Ibid, pg. 59.

¹⁴Ibid, pg. 61.

¹⁵Ibid, pg. 5.

¹⁶ Nigeria Demographic and Health Survey 1990, Federal Office of Statistics, Lagos, Nigeria, IRD Macro Int'l, April 1992.



breastmilk and water.¹⁷ The early introduction of supplements may be related to the fact that three quarters of women work outside the home in both urban and rural areas of the Southwest.

The NDHS data show that the nutritional status of infants begins to more sharply deteriorate as they enter the weaning period at four to six months. The international recommendation is that infants be introduced to complementary solid foods from four to six months. In the southwest region, only half (52%) of the infants are receiving appropriate complementary solid foods from six to nine months of age.

C. Childhood morbidity

The poor nutritional status of infants is related to the relatively high rates of morbidity in the southwest. In the NDHS 12% of children 0-24 months had had diarrhea in the past two weeks.¹⁸ Among children 0-59 months in the Southwest, 20% had fever and 17% had cough. Use of tertiary health facilities in the Southwest is higher than other regions of Nigeria, as over half (53.5%) of the children 0-59 months with fever or cough were taken to a hospital.¹⁹

D. Health care facilities

In Oyo State there are 28 general hospitals and five district hospitals as well as numerous private hospitals. The State is split into 11 health zones and 25 LGAs. The NCCCD focus LGA is Egbeda.

Maternity Services

The team visited Adeoyo State Hospital and an LGA Maternity Center in Ibadan to assess current lactation management practices and attitudes within Oyo. In collaboration with the State Ministry of Health (SMOH), the MotherCare program has upgraded the maternal delivery services and supported a program of Life Savings Skills Training for midwives at Adeoyo.

While the maternity staff at all levels were supportive of breastfeeding, they were ill prepared to promote breastfeeding. Initiation of breastfeeding was delayed for a minimum of six hours and they believed that glucose prelacteal feeds were needed. Babies were sleeping in cots at the foot of the mothers' beds because midwives thought that "bedding-in" would be dangerous. The staff had not heard of the BFHI or the "Ten Steps." They reported that they had not been trained in breastfeeding promotion and did not know the definition of exclusive breastfeeding nor the rationale for eliminating prelacteals and water.

During antenatal care, some midwives reported that they taught mothers "breastcare" during sessions and recommended prelacteal feeds of glucose water.

BFHI-Ibadan University Teaching Hospital (UCH)

The Ibadan University Teaching Hospital (known as UCH) is one of the eight "Baby Friendly" Hospitals in Nigeria and one of the first four declared Baby Friendly. The team met with Dr. Ogunjumi, Hospital Administrator and the secretary of the BFHI committee, to find out about their training activities in Oyo State. The hospital has six trainers who were trained by Helen Armstrong from UNICEF during a two-week course held in Jos in 1992. To date, the hospital has mainly trained their own staff but plan to conduct training in all of the public and private hospitals in Ibadan as well as two adjacent health centers. UNICEF provided 100,000 Naira and a vehicle to support the BFHI in Oyo and 59,000 Naira remains for additional BFHI training.

¹⁷Ibid, pgs. 14-16.

¹⁸Atinmo, T., et al., Sept. 1993, pg. 32.

¹⁹Ibid, Atinmo, T. et al, 1993, pg. 27.



The hospital has a day-care for staff which has been in existence for six to seven years. The UCH BFHI Committee reported that they have urged the Federal Ministry of Health (FMOH) to extend maternity leave to four months. The secretary also reported that the BFHI staff have formed a "pressure group" which meets and reportedly follows-up with women at home who are considered at-risk. Due to time constraints, the team was not able to visit a maternity ward or lying-in ward or to document the activities of the "pressure group."

Nutrition Promotion, Services, and Rehabilitation

Oyo State started a nutrition program in 1993 and has seven zonal nutrition officers. Four of the nutrition officers are posted out in LGAs and it appears that they are working with UNICEF's food security program in six LGAs. The other three zonal officers work at the State Nutrition Rehabilitation Center in Ibadan. The role of the posted zonal officers was not clarified. The team visited the rehabilitation unit and met with two of the nutrition officers who are young men and former nurses who have received three additional years of university education. They left nursing in search of a more satisfying career and now find themselves giving food demonstrations once a week and counseling mothers with malnourished children who have been referred from the well child clinic at the hospital.

The officers also produce soya flour or a soya/corn mix. UNICEF donated the supply of corn (which is now depleted) and the mill was donated by another external donor. The nutrition officers prepare the flour and sell it to mothers for a nominal fee. They do not have plans to acquire additional soya and corn when their supply ends but hope to get another shipment from UNICEF. The corn/soya flour is prepared in a 3:1 ratio. Nutrition counseling is didactic. Nutritionists felt that their training at the university had prepared them for a more prestigious role than as nutrition educators and food demonstrators. This nutrition program is mostly curative and reaches only a handful of the State's population. While demonstrations are open to all mothers, they are mainly attended by mothers of malnourished children. Having men teach mothers to cook seemed odd in a culture where men traditionally have nothing to do with cooking.

Training

The State trains PHC staff at the Schools of Hygiene (usually called the School of Health Technology in other States). All levels of PHC staff receive their pre-service training here. NCCCD Project has established the CEU within the school. The CEU trainers are in the middle of the 11 module training cycle, developed for training PHC staff in the focus LGA, Egbeda. Other LGAs in the State are included whenever a training session is held to broaden the impact of the CEU. The State-Based Epidemiologist and CEU staff have a good relationship with the Director of Training and Secondary Care.

Within the SMOH PHC Department, there are four persons who are responsible for training the four types of voluntary health workers including: market based distributors, village health workers, "women in health volunteers" (sponsored through UNFPA), and traditional and church birth attendants. Each of the trainers uses the standard three-week course adapted from the Federal model at Ibadan and does not adapt the curricula for different cadres of workers. The training content is extensive and is not competency based. The breastfeeding section does not include exclusive breastfeeding. It does include a section on managing breastfeeding problems but includes erroneous information, e.g., "stop breastfeeding when breasts are infected."

Policy

There are no state policies or laws for breastfeeding, working women or for regulating the Federal Code of Marketing of Breastmilk Substitutes. Policy makers tend to take breastfeeding for granted and are not necessarily aware that it needs to be promoted.



Policy makers within the SMOH are also not actively involved in BFHI and are unaware of the Ten Steps. Consequently there are no standing orders to promote the Ten Steps in State-run hospitals and maternities.

Regulation of the Code of Marketing is urgently needed, as the evidence of Nestle marketing within the health service is everywhere.

Information, Education and Communication/Social Marketing

The SMOH PHC division has a health educator who is responsible for information, education and communication (IEC) activities in Oyo. The IEC component of the Ministry has been strengthened through the Family Health Services IEC being implemented by PCS. PCS has signed subcontracts with several States, including Oyo, to implement IEC activities in their State. States are required to form a multi-disciplinary committee which formulates an IEC strategy and approves all IEC activities in their State. With this assistance, the unit has developed the capability to design and produce posters and carry out other IEC activities. Most activities have focused on Family Planning.

Monitoring and Evaluation

With support from NCCCD, the Health Information System (HIS) unit in the SMOH has been strengthened. This unit is actually temporarily housed in the SBE office because the SMOH has not had electricity for an extended period (approximately six months). Data from the LGAs is compiled at the SMOH office but the team did not see compiled returns.

Egbeda Local Government Area

A. Background

Egbeda became a NCCCD focus LGA in 1989 but most program activities were initiated in 1992. The LGA is semi-urban and is located northeast of Ibadan. The population of Egbeda is 128,998 and there are several large population centers including: Erunmu (18,143), Osegere (6,704), Owobale (3,937), and Egbeda (3,931). These urban areas have piped water and electricity. Most of the people are farmers or traders. According to the 1991 census, Egbeda has 5,495 children under one year, 29,733 children under five years, and 32,706 women of childbearing age (15-44 years).

NCCCD has supported the development of the PHC management system which has included: reorientation and management training for the senior PHC team, creation of ten health districts and numbering of households (75% completed), mobilization of the LGA PHC Management Committee, creation of 20 village development committees, and initiation of monitoring and education (M&E) system. Egbeda has also completed a health facility assessment survey, and a community knowledge, attitudes and practices (KAP) survey.

The LGA has seven maternities, seven dispensaries, and one health center. The private sector has another 15 facilities, including eight maternity homes, five clinics, and two hospitals.

B. Health and nutrition indicators and services

Preliminary nutritional status data from the Egbeda KAP survey indicate that among children 0-59 months, 25.9% are moderately underweight and 26.9% are severely underweight (definition of underweight not specified).²⁰ Among children zero to six months, 35% were moderately underweight and 25% were severely underweight. Severe undernutrition was highest (46%) among children 7-12

²⁰The questionnaire used indicated that both weight-for-age and arm circumference measures were collected.



months. Severe malnutrition appeared to lessen (26%) among children 13-18 months. If data are accurate, breastfeeding and weaning promotion is urgently needed in Egbeda since malnutrition appears to start among very young infants and reaches an acute state during the weaning period.

Data on exclusive breastfeeding are unclear because the team was not able to determine if interviewers specifically probed about water use. In Egbeda, 30% of the children 0-59 months had been given a bottle.

NCCCD assisted the LGA to carry out a health facility assessment of health workers' performance in Egbeda. The assessment concluded that the overall performance of health workers was not exceptional, drugs and equipment were not available in many facilities, and health workers were under-utilized.

The health facility assessment included only a few indicators related to breastfeeding and nutrition.²¹ With respect to nutritional status, 38% of the health workers determined the child's weight during clinic consultation. About half of the health facilities actually had a weighing scale for growth monitoring. Information was not collected about the health workers' determination of children's nutritional status or growth and diet (breastfeeding, complementary foods). In the case management of children with diarrhea three quarters of the health workers did not stress the need for mothers to continue breastfeeding.

When health workers assessed their need for training they indicated that they wanted growth monitoring (20%), nutrition (7%), and health education (7%).

The NCCCD/Wellstart team visit to PHC facilities in Egbeda revealed that they are not counseling women to exclusively breastfeed but they do appear to be giving some nutritional education although it was difficult to determine if the messages were appropriate.

The Assistant Coordinator of Voluntary Health Workers and Nutrition carries out mobile growth monitoring sessions. Malnourished children are then referred to health centers. The women in the community are reported to like the mobile weighing. The Assistant Coordinator plans to carry out nutrition demonstrations.

C. Monitoring and evaluation

The SBE in Oyo has been working with Egbeda to establish an M&E system. The SBE reported that the system is still not functioning efficiently because of a number of problems including shortage of drugs, low usage of health facilities (which make LGA aggregate numbers too small), and inadequate training of the officers. Antenatal care and birth recording is one example of the deficiencies in the system. The SBE reported that among 28,000 women of child-bearing age, only 1,309 births were recorded in 1992 and only 1,337 antenatal new attenders were recorded. Of the total births recorded 7% were under 2,500 grams (low birth weight).

The annual record on growth monitoring for Egbeda indicated that only a total of 394 children were weighed (118 first time). Among the total weighed, 5% were under the third percentile. The SBE is working to improve the system and to work with the LGA to encourage better utilization of health facilities.²²

²¹"Health Facility-Based Assessment Survey Egbeda Local Government Area Oyo State", 1993, conducted by Egbeda LGA PHC Dept. with assistance from NCCCD, USAID.

²²"Establishment of Primary Health Care Infrastructure in Egbeda LGA, A Report, November 1993", NCCCD in collaboration with Egbeda LGA PHC Dept with support from USAID.



D. Community-based activities

The LGA provides training and supervision for VHWs, TBAs (50), and community based distributors. Originally Egbeda had 66 VHWs and with support from NCCCD, 84 additional VHWs and TBAs have been trained. The VHWs provide essential drugs for minor ailments (malaria, cough, worms, etc.), prepare oral rehydration solution (SSS) and motivate, counsel and distribute family planning commodities. VHWs have been provided with bikes to facilitate their work and to get drugs and supplies.

Some of the VHWs are in urban areas and report that they have difficulty getting their drug stocks supplied. The VHWs visited were not using their pink registers (reporting forms) and reported that they were not provided with forms. VHWs in Egbeda are not equipped to counsel women on infant feeding and would need additional training and supervision to effectively do this. Motivation to carry out counseling activities needs to be assessed before developing a training program for infant feeding counseling because one VHW distinguished between providing simple and routine drugs at a low cost to the community and providing counseling as a "charity."

The team attempted to find a community-based women's group and visited a community mill for palm oil, gueri, and groundnut oil. The mills were provided through "Better Life" and the palm oil mill was being extensively used by women. Unfortunately, the women work on a consignment basis and process the oil for others. The owner gets the palm oil and the women get the palm kernels to make other products. In actuality the enterprise was not truly group-based but provided a community service to individuals.

VIII. OSUN STATE

Health and Maternal Facilities

In Osun State there are two teaching hospitals, five general hospitals, 40 private hospitals, 96 public maternities, and 74 private maternities. The state is divided into 23 LGAs and 22 of these have functioning community health services. Ife-Central is the NCCCD focus LGA in Osun State.

There are over 2,000 CHEWs and 550 Health Assistants in Osun State. The SMOH has trained over 500 church based attendants (CBAs) using the standard three-week FMOH training manual. MotherCare has been working in Osun State, in addition to Oyo State, and over 405 midwives have received LSS training in both States.

The SMOH Director of PHC has also been active in registering "quacks" (unauthorized drug dispensers) in an attempt to curb some of their dangerous practices and educate them about Acquired Immune Deficiency Syndrome (AIDS). Quacks have posed a real problem to the implementation of PHC because they compete with the VHWs for clientele. To date, the SMOH has trained 400 of them in AIDS prevention. The Director of PHC faces opposition from others in the SMOH who do not believe in trying to work with the quacks at all.

BFHI-Obafemi Awolowo University Teaching Hospitals Complex (OAUTHC)

The Obafemi Awolowo University Teaching Hospital has a very active BFHI Program. The Chief Medical Director is chairman of the OAUTHC Steering Committee that is responsible for organizing, coordinating, and supervising the Baby Friendly Activities. There are six BFHI trainers who were trained in Jos by Helen Armstrong. Last year over 100 staff were trained from facilities associated with the University as were 60 additional health professionals from other institutions in their state. OAU also carried out a community-based KAP study in Ile-Ife and a KAP among 426 health professionals in Osun State.



This training program exhausted the original 100,000 Naira provided by UNICEF as well as an additional 50,000 Naira that OAU has put into the program. The OAU BFHI Program would like to have two additional master trainers for the BFHI and sent in a request to Wellstart's LME Program for two additional staff persons last year but these candidates were unable to meet the deadline because the invitation from Wellstart arrived late.

The OAU has adopted a breastfeeding policy for their institution, and has drafted a state policy for both hospitals and primary health care institutions. Currently the OAU BFHI program is pressuring the SMOH to move forward in adopting State policies. In addition, the OAU BFHI program prints and distributes a one page handout for mothers in English and Yoruba. Their plans for 1994 include: expanding the training to all of the secondary care institutions in Osun, holding one day workshops for PHC coordinators from each of the LGAs, holding workshops for PHC staff in five LGAs, initiating breastfeeding publicity week, and conducting assessments of institutions. The program is soliciting funds for some of the 1994 activities.

Given the strength of the program, the NCCCD/Wellstart infant feeding promotion can work to develop a training strategy with the OAUTHC that identifies who will be responsible for training in breastfeeding at various levels of the health service.

Nutrition Indicators and Promotion Activities

NCCCD provided support to Osun to carry out a nutritional assessment in 1993. Six LGAs were included in the sample (did not include Ife-Central). Using weight-for-age (from the "Road to Health" card), 33% of children 0-59 months were undernourished.²³ Among infants under six months, 11% were malnourished and 22.9% were malnourished among children six to eleven months. Mean duration of breastfeeding was 21.1 months. Rates of exclusive breastfeeding from zero to four months was 4.5% but it is unclear how carefully interviewers probed for water use.²⁴

The SMOH Director of PHC reported that ten LGAs are carrying out growth monitoring in health facilities. The SMOH would like to have a more simplified growth monitoring and promotion (GM/P) form and thinks that they are collecting too much data. He would like to start growth monitoring activities in other LGAs. The SMOH reported that World Vision has successfully used village health workers to do growth monitoring in one LGA in Osun.

The team visited the outpatient nutrition unit at Osogbo State Hospital and met with the Senior Nurse and the Nutritionist at the unit. Nutrition activities consisted of food demonstration sessions given once a week as well as growth monitoring sessions. Counseling on breastfeeding and follow-up of malnourished children identified during growth monitoring appeared weak and there were no guidelines for growth monitoring. A Nestle poster was prominently displayed in the unit and advised "continued breastfeeding," suggested that milk could be added to local pap, and that "ready-made" cereals should be made by carefully following the directions on the tin. The poster also included the four classic food groups (including milk).

The staff had not received training in exclusive breastfeeding and had not heard of the BFHI Initiative.

Training

The CEU was started in 1992 and recently held the first training of trainers for Ife-Central PHC staff. The CEU has four trainers who are supported by the SMOH. Two tutors from the School of Health Technology also participate on a part-time basis. The coordinator of the CEU unit, Dr. Yetunde

²³Unclear what standard was used to classify children as malnourished.

²⁴"An Assessment of Nutritional Status of Children in Osun State, Nov. 1993, Osun State Ministry of Health, Osogbo.



Technology also participate on a part-time basis. The coordinator of the CEU unit, Dr. Yetunde Oyeilemu, has a background in community health and was recently posted to Osun from Oyo. The School of Health Technology uses the health facilities in Elasia LGA as a practice site for the school. Consequently, the CEU includes Elasia LGA staff in the training cycle for the Ife-Central Staff (11 modules).

Policy

OAU staff have drafted a breastfeeding policy which they are actively pursuing with the SMOH Director of PHC. This policy is more appropriate for individual health institutions rather than as a comprehensive State policy. Wellstart could assist the OAU staff to broaden their policy for adoption at the State level.

There is no policy for complementary feeding or growth monitoring.

Monitoring and Evaluation

The team visited the SMOH M&E unit which started in 1992 with NCCCD support. The unit appeared to be functioning well and reported that they had their first complete set of data from 1993. The team noted that staff were using zeros and dashes indiscriminately and once data were compiled it was impossible to determine if data were missing or whether the rates reported should be zero. The staff also indicated that they had pin-pointed problems in the data being returned but did not have a system for marking these data. No exclusive breastfeeding or complementary feeding data is being collected.

Ife-Central

A. Background

In 1986, Ife-Central was chosen as one of the 56 PHC model LGAs by the Federal Ministry of Health. The local monitoring system developed in Ife-Central became the model for the M&E system that is currently being used in all LGAs in Nigeria. NCCCD began providing support to Ife-Central in 1991. Ife-Central is also participating in the Bamako Initiative which provided the initial set of drugs to begin a drug revolving fund. A vehicle and four motorcycles were also provided as part of the Bamako Initiative.

Ife-Central has one general hospital, six PHC centers, and two teaching hospitals. In the private sector, there are two hospitals, nine maternities, two clinics, and two combined clinics/maternity homes. These health institutions serve a population of 185,256, according to 1991 Census figures. Ife-Central has 7,892 children under twelve months, 39,460 children under five years, and 43,406 women of child bearing age (15-44 years).²⁵

Overall direction to the PHC system is carried out by the LGA PHC Management Committee. Ife-Central is divided into 12 health districts and 56 wards. Each district has a District Development committee that includes representatives from the village development committees. There are 112 Village Development Committees. The team witnessed the meeting of the District Development Committees and their enthusiasm and motivation were impressive.

Out of the original 108 village health workers trained in 1989, Ife-Central has 64 active VHWs and TBAs as well as approximately 15 market based distributors. The CHEWs use the motorcycles to carry out supervisory visits to the VHWs once a month. The three-page Bamako supervisory sheet does not include information on infant feeding or malnutrition education, counseling, or referrals.

²⁵Data provided by the PHC B-zone Coordinator who supervises PHC in the eight states in the southwest region.



B. Health and nutrition services

The Oyo/Osun SBE is working with the LGA PHC Coordinator to carry out a nutrition survey during the week of Feb. 21. The team wanted to provide input to the nutrition section of the survey but learned that the forms had already been created. The SBE agreed to attach the WHO questionnaire which uses 24-hour dietary recall for last-born children to obtain information about specific foods and liquids fed to the child.

The PHC coordinator is also anxious to start BFHI in the five health facilities in Ife-Central. Nestle reportedly carried out a "breastfeeding seminar" at the comprehensive PHC clinic after assuring the PHC Coordinator that they were supporting the BFHI program. Calendars displaying Nestle products and samples of weaning foods were given to the health workers following the "breastfeeding seminar." PHC staff were aware of the need for exclusive breastfeeding but had only received the Nestle "training."

Growth monitoring is being carried out in the five health facilities. The LGA was given a number of scales in 1991 from the FMOH and these scales have been "locked up" awaiting training in growth monitoring promised by the FMOH. Nutrition is included in health education "talks" given at the health facilities.

C. Information, education and communication

The LGA has one health educator, formerly an environmental health officer, who completed the year-long training at African Regional Health Education Center (ARHEC) in Ibadan. He organizes health education sessions and assists in mobilizing the community to deal with disease outbreaks. He has trained 200 food vendors in sanitation and started a malaria control project in one village. The health educator has not been given special training in infant feeding or nutrition promotion.

D. Monitoring and evaluation

The LGA M&E unit is functioning well and is collecting data from public and private facilities.

E. Community-based activities

The LGA PHC Committee includes a representative from the NGO community. The representative has a complete list of all of the NGOs that are active in Ife-Central. Further investigation is needed to determine if some of these groups may be useful for community-based promotion activities.

The team also met with the Director of the Omitota Better Life Women's group in Ilode District. The group is extremely active and has a number of income generating activities, including: raising pigs and fowl, making soap, and growing vegetables in a community garden. The chairman of the group, Mrs. Fawole, is also the chairman of another village women's group. She hopes to open a daycare and is working on constructing an appropriate building.

The team talked with her about the possibility of using her group to improve exclusive breastfeeding and weaning practices. Mrs. Fawole reported that the biggest constraint to appropriate feeding is time. She said that women do not have time to make special food and do not like using soya to fortify weaning foods. Other constraints include the common belief that teething causes diarrhea and that the child cannot receive family food until he can sit upright without assistance. She thought that women could be used as counselors if their messages were backed up by health workers. She also recommended that women could be trained as infant feeding counselors, but should not also be trained as family planning counselors.



IX. PLATEAU STATE

Plateau State is so-named because of its position on a high plateau. Its population is estimated at almost four million. Its dry climate is quite mild and even cold in the drier months between December and February. The population is made up of about 50 different ethnic groups.

Most of the people are farmers who grow a large variety of food crops including guinea corn, maize, millet, groundnuts and yam. In the Northeast, where Plateau is located, the NDHS sample showed that 82% of females had had no formal education (and 66% of males) compared to the overall 58% of women and 43% of men in Nigeria with no formal education.

Health Services

In addition to services provided by the public sector, a large percentage of health care is provided by Voluntary Health Service Providers, including CHAN. There is a University Teaching Hospital in Jos, the capital city. Among primary health care facilities there are three Health Centers, 23 Basic Health Clinics, 43 Maternal and Child Welfare Clinics and 29 Government Health Clinics.

The team visited the University Teaching Hospital, a maternity hospital in Jos Township which provides prenatal, delivery, and postnatal services as well as child welfare clinics, a nutrition clinic in Jos and rural health centers. In all the facilities visited, nutrition programs are provided in the form of nutrition talks and growth monitoring.

At a health facility run by the Church of Christ in Nigeria (COCIN), the team observed a residential facility set up for a six-week treatment for malnourished children. The main diet used is a cereal/soya bean mixture. The center reportedly follows up on the patients once they are released from the center.

BFHI - Jos University Teaching Hospital (JUTH)

The Jos University Teaching Hospital (JUTH) was awarded the BFHI certificate 18 months ago. To support and maintain the Initiative, the hospital has: (1) a Steering Committee chaired by the Chief Medical Director, with representatives from Pediatrics, Obstetrics, Community Health and Nursing; (2) an Implementation Committee, which includes members of the Steering Committee plus all matrons from relevant units such as antenatal, postnatal, outpatient department and the secretary of (3) a Lactation Support Group which includes hospital staff and community volunteers; and (4) a nurse who was reported to have been hired specifically to follow up with mothers after they are discharged from the hospital in order to help them with exclusive breastfeeding.

In connection with the BFHI, six persons at JUTH were trained as master trainers for breastfeeding. These trainers have extended their training to Bauchi and Maiduguri States. Unfortunately they have been unable to reach an agreement with the Jos State Hospital Management Board to extend training into hospitals in Plateau State itself. Consequently even in the largest State Maternity Hospital, midwives interviewed have not even heard the term "BFHI." Unless further negotiations are successful, it appears that JUTH cannot at this time be counted on as a resource for training hospital staff in Plateau State.

Child Nutritional Status

The northeastern part of the country recorded the highest rate of malnutrition reported by the NDHS. Thirty percent of the children under five years were **severely** stunted (below -3SD; 52% were below -2SD for height-for-age.) Almost all the mothers initiate breastfeeding (99.8%) and breastfeed longer than most other parts of the country (20.8 months compared to an overall rate of 19.5 months). However, they are most likely to discard colostrum and least likely to begin appropriate feeding of complementary foods. Only 34% of infants six to nine months are fed complementary foods compared to 52% nationally and 67% in the Southeast.



Nutrition Improvement Activities

The most common activity conducted to improve nutrition is interpersonal nutrition education, which is usually offered in talks given by health workers to groups of women waiting to be attended to at health facilities. Reportedly, some individual counseling of mothers occurs when children are judged to be malnourished or manifest growth faltering. When resources allow, cooking demonstrations of weaning foods are also carried out at some health facilities. There are also some reported initiatives in farming (such as dry season farming), and income generation activities for women.

Growth monitoring is conducted at child welfare clinics in hospitals, maternity centers, and health centers across the State. The weights are charted on the nationally-designed growth charts. No growth monitoring session was actually observed but in interviews it was evident that the counseling needs to be improved. Many of the health workers have not been exposed to the principles of optimal breastfeeding and are unable to help the few mothers who come to them after delivery in the Baby Friendly Hospital in Jos University Teaching Hospital.

Information, Education and Communication

There is a State Health Education Unit staffed by 11 health educators, seven of whom are at the central state office and four of whom are in satellite offices. Four of the health educators are assigned to specific interventions such as EPI. None is currently assigned specifically to nutrition. The two health educators interviewed at the central office complained that they are not able to do much nutrition education because they have no transportation to go into the communities to give health talks.

The Chairman of Pediatrics at JUTH said that the BFHI has broadcast some breastfeeding educational materials by radio.

Barkin-Ladi Local Government Area

A. Background

The Barkin-Ladi Local Government Area (LGA) has an estimated population of 152,808 (1991 census) and is located about 42 kilometers from Jos, the capital city of Plateau State. The LGA, mostly rural, is divided into eight districts, seven of which are predominantly of the Berom ethnic group. Almost all the residents speak Hausa.

Since 1986, when Barkin-Ladi was one of 52 LGAs in the country selected to be developed as "Model LGAs" in Primary Health Care delivery, it has made steady progress according to guidelines set by the Federal Ministry of Health. A structure for PHC delivery has been developed that involves the participation of both health workers and the people of the LGA. There is an LGA PHC coordinator who supervises and meets monthly with the District Supervisors from the eight districts in the LGA. These health workers are members of PHC committees formed at LGA, district, and village levels. Supervision is facilitated by the provision of motorcycles to the District Supervisors by the NCCCD project.

Each of the PHC program's five sections (Immunization/Diarrheal Disease Control, Essential Drugs, Maternal Child Health/Nutrition, Health Education/Women in Health, and Monitoring and Evaluation) is headed by an Assistant PHC Coordinator. The implementation of the activities at the health facility level is strengthened by the use of VHWs and TBAs who have been trained to provide basic health care in the villages. VHWs have been trained in 56 villages to dispense drugs in treating minor ailments. The VHWs are allowed to keep 25% of the mark-up on the drugs and the rest of the funds constitute a revolving drug fund regarded to be especially successful in the Barkin-Ladi LGA.

There are about twenty public health facilities in the LGA, including a general hospital, basic and rural primary health care clinics. There are also a large number of private health institutions, including those run by CHAN, which has its headquarters in Plateau State.



Since mid-1991, Barkin-Ladi has also been one of the focus LGAs of NCCCD, which until now has focused on strengthening the infrastructure and support of technical interventions, immunization, control of diarrheal diseases, malaria, and acute respiratory infections. The material assistance from NCCCD, establishment of continued education and improved training, have all strengthened the primary health care delivery in the LGA. There now exists an infrastructure for training, referral, supervision and community participation on which the improved infant and child feeding initiative will be piloted.

B. Infant feeding practices

Initiation of breastfeeding is near universal (99.6% in a community survey conducted by the Barkin-Ladi Local Government Health Department),²⁶ with almost all mothers who initiate breastfeeding continuing for 12-23 months. Exclusive breastfeeding is thought to be rare. Unfortunately the community survey was not structured to clearly measure the level, if there is any, of exclusive breastfeeding (information from the NDHS of 1990 shows that exclusive breastfeeding is rare throughout Nigeria). The general belief that breastfed infants should also receive water was substantiated during interviews with a few mothers and health workers interviewed during this planning trip. There is a need to explore the beliefs regarding giving water to infants, in order to develop IEC programs that address the issue.

In spite of the rural nature of the LGA, in the Community Survey, about one-half of the mothers reported having bottlefed their infants at some time. Watery pap from maize was the most common weaning food introduced at four to five months of age by 61% of mothers. Twenty-five percent of mothers introduce it before four months and 12% between six and eleven months of age. "Kunu," a millet porridge, is the second most common weaning food.

C. Nutrition-related services and information, education and communication

Growth monitoring is systematically practiced in the LGA at the PHC health facilities, although the team later found out from the FMOH that the LGA is one of those where training in growth monitoring has not been done and the LG trainer was supposed to be trained in about a month (March 1994). The Health Facility Assessment Survey in 1991 showed that all thirteen facilities sampled had functioning scales. However only a small minority (15%) of sick children who presented at the clinics were weighed, including those who presented with diarrhea. It appeared that weighing of children was reserved for when they were brought in for immunization. The need to feed children who have diarrhea was discussed only in about half the cases.

In one health center that the team visited, the staff members at the center take turns giving health talks to the groups of mothers attending the clinic. Infant feeding was one of the several topics discussed on different days. They knew about exclusive breastfeeding and advised that complementary feeding start at four months. None of them had been trained to support mothers to breastfeed.

The health workers teach mothers to improve weaning foods through enriching the traditional maize or millet pap with such local high protein foods as soya bean and groundnuts. There are also demonstrations of the weaning food preparation in some clinics.

D. Community-based activities

Community-based growth monitoring

The team learned that some simple hanging TALC scales have been distributed to willing VHWs. Some of the VHWs were reportedly very enthusiastic and excited about participating in that program. Unfortunately, information was not immediately available on the status of this approach. Because of the possibilities for closer follow-up that this approach offers, this issue will be further explored, an inventory

²⁶Barkin-Ladi Community Survey. Final Report, May 1992.



taken of where these scales are, and a decision made on whether to pilot this form of community-based growth monitoring in selected communities.

Other community-level activities

Women's groups offer opportunities for sensitization and education on infant and young child feeding. There are existing women's groups already engaged in nutrition related activities such as dry season farming or poultry farming. These offer an entry into community-based nutrition education and monitoring. One such group is described in the following section.

Women in Health of Heipang

The wife of the political head of the Heipang District, Mrs. Deborah Pam, has started a women's group in Barkin Ladi which they call the "Women in Health of Heipang." The group is self-generated and has not received any outside assistance or support. Both the Barkin Ladi PHC Coordinator and our team were impressed with the motivation and accomplishments of this group of women of about 50. The bulk of their activities have centered around cooperative activities including gardening, poultry and pig raising. They have pooled their resources and raised chickens and pigs to sell back to each other at low cost with the sole intention of improving their families' diets and do not sell to people outside their group. An LGA water pump is on loan to them and this has facilitated their dry season gardening. The pump is rotated between the eight districts in Barkin Ladi.

In addition to raising food, Mrs. Pam has taught the women to make a fortified weaning food with the food staple "ogi" (a fermented corn paste). She recommends that women prepare groundnut and soya flour to enrich the traditional pap made of "ogi." She reportedly learned about enriched pap from the "Better Life" Women's Group set up by the former First Lady. She is convinced of the efficacy of this fortified food and recommends that women begin using it when their infants reach four months of age. She claims to have taken care of malnourished children with this mixture. She also recommends that women breastfeed exclusively (although we are not sure about whether this is full or exclusive breastfeeding) until the infant is four months of age and she believes that most women's milk is adequate unless they are malnourished. Membership requires that women pay 10 Naira to join and 100 Naira after three months to add to their fund. Proceeds from the sale of the poultry and pigs are returned to the fund. They reportedly have been approached by other women who want to join their group but they are encouraging others to start groups in their own villages.

Mrs. Pam seems to be an **ideal** candidate for additional training in breastfeeding and weaning promotion. She is committed and believes in the importance of caring for children's nutrition. Perhaps she and additional members could be trained to be "child feeding counselors" in their district. Other "counselor" candidates could be chosen from among the other women's groups in Barkin Ladi.

ANNEX

**MONTHLY RECORD OF STATE GROWTH MONITORING
AND PROMOTION IN THE DISTRICT/LGA**

WELLSTART INTERNATIONAL

Wellstart International is a private, nonprofit organization dedicated to the promotion of healthy families through the global promotion of breastfeeding. With a tradition of building on existing resources, Wellstart works cooperatively with individuals, institutions, and governments to expand and support the expertise necessary for establishing and sustaining optimal infant feeding practices worldwide.

Wellstart has been involved in numerous global breastfeeding initiatives including the Innocenti Declaration, the World Summit for Children, and the Baby Friendly Hospital Initiative. Programs are carried out both internationally and within the United States.

International Programs

Wellstart's *Lactation Management Education (LME) Program*, funded through USAID/Office of Nutrition, provides comprehensive education, with ongoing material and field support services, to multidisciplinary teams of leading health professionals. With Wellstart's assistance, an extensive network of Associates from more than 40 countries is in turn providing training and support within their own institutions and regions, as well as developing appropriate in-country model teaching, service, and resource centers.

Wellstart's *Expanded Promotion of Breastfeeding (EPB) Program*, funded through USAID/Office of Health, broadens the scope of global breastfeeding promotion by working to overcome barriers to breastfeeding at all levels (policy, institutional, community, and individual). Efforts include assistance with national assessments, policy development, social marketing including the development and testing of communication strategies and materials, and community outreach including primary care training and support group development. Additionally, program-supported research expands biomedical, social, and programmatic knowledge about breastfeeding.

National Programs

Nineteen multidisciplinary teams from across the U.S. have participated in Wellstart's lactation management education programs designed specifically for the needs of domestic participants. In collaboration with universities across the country, Wellstart has developed and field-tested a comprehensive guide for the integration of lactation management education into schools of medicine, nursing and nutrition. With funding through the MCH Bureau of the U.S. Department of Health and Human Services, the NIH, and other agencies, Wellstart also provides workshops, conferences and consultation on programmatic, policy and clinical issues for healthcare professionals from a variety of settings, e.g. Public Health, WIC, Native American. At the San Diego facility, activities also include clinical and educational services for local families.

Wellstart International is a designated World Health Organization Collaborating Center on Breastfeeding Promotion and Protection, with Particular Emphasis on Lactation Management Education.

For information on corporate matters, the LME or National Programs, contact:

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