

ADRA/Sudan
END OF PROJECT NARRATIVE AND FINANCIAL REPORT
for the
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Expiring July 31, 1988



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ADRA/Sudan

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**ADRA/NCC MCH SUPPLEMENTAL FEEDING PROGRAM
ANNUAL PROGRESS REPORT**

APRIL 1, 1987 TO MARCH 31, 1988

Project Number 904-0006

I. STATEMENT OF PROGRAM OBJECTIVES

- A. Objective One: To provide a monthly food ration to at least 25,000 malnourished children and their pregnant mothers through health centers in the National Capital Commission (NCC) over a three year period.
- B. Objective Two: To improve health and nutrition related behaviors of the target population, particularly in regular growth monitoring, weaning practices, management of infant diarrheal episodes, and compliance with immunization schedules.
- C. Objective Three: To improve the service delivery capability of the health centers utilized, specifically in the areas of regular growth monitoring, nutrition education, education in the usage of ORS for management of infant diarrheal episodes, education in immunization, and improved coordination of these services with each other and with curative Maternal Child Health (MCH) services to contribute to more effective comprehensive MCH health care delivery .
- D. Objective Four: To improve the NCC/Nutrition Division's supervisory and training capability in the above mentioned areas of operation.

II. STATEMENT OF BENCHMARKS FOR PROGRAM PERFORMANCE

- A. Benchmarks for Objective One
 - 1. Monthly food ration delivered to 25,000 underweight children and their pregnant mothers.
 - 2. Program activities taking place in 40 health centers.
- B. Benchmarks for Objective Two
 - 1. Improved regular attendance at the health center.
 - 2. Number of children rehabilitated by the program each month.
 - 3. An increase in the number of children gaining weight each month.

4. A decrease in the percentage of children less than 80% weight for age.
5. An increase in the number of women who can correctly mix the Oral Rehydration Solution (ORS).
6. An increase in the percentage of children completing the immunization schedule.

C. Benchmarks for Objective Three

1. Introduction of nutrition demonstration classes in all centers with the objective of obtaining participation of beneficiaries in support of activities through kind or funds.
2. Finalize the development of health educational materials.
3. Improved coordination of curative and preventive MCH services in health centers.

D. Benchmarks for Objective Four

1. Improved management information system.
2. Continue joint ADRA/NCC evaluation and supervision activities.

III. DISCUSSION OF PROJECT PROGRESS AND ACHIEVEMENTS

A. Discussion of Achievements for Objective One

During the past year, ADRA distributed food to an average of 6,982 malnourished children and their pregnant mothers each month. Table 1 and Figure 1 are a summary of beneficiaries per month for the reporting period. This data is collected by ADRA end use checkers on a monthly basis.

Looking at Figure 1 one can see that food distribution has been somewhat erratic during the reporting period and that for most of the reporting period very small amounts of food were distributed. There are reasons for these things. First, during Feb. and March of 1987, the Commissioner for Health, National Capital Region, attempted to close our program down, mainly because of some misunderstandings on both sides. By April everything had been ironed out and food distribution resumed. During May and June, however, the final stocks of sorghum and NFDN were distributed from the ADRA warehouse and we waited for the shipment of commodities which were in Port Sudan to be cleared. This process dragged on and on and one by one the health centers distributed the last commodities from their own stores. By August only nine health centers had commodities to distribute and it was decided to give out the remaining stocks of vegetable oil in our warehouse without waiting for the commodities which were still in

Port Sudan. This distribution, which took place in September, resulted in October's peak in beneficiary attendance. The oil from our warehouse was all distributed during September and October and the number of beneficiaries declined until February when we began distributing food from a new call forward that had arrived in Sudan during November and December.

ADRA was caught in the midst of a government reorganization of how NGO's would be dealt with after the misunderstanding was cleared up. This effected all NGO's in Sudan. All imports were held up for several months. When finally registration procedures were organized by the government and importation was again somewhat normalized then time was needed to clear up things that were waiting in Port Sudan. All this did hamper food distribution. But it did give us some idea of the importance of food in the health program.

Table 2 is a summary of attendance and growth monitoring data collected by NCC Nutrition Officers who supervise the health centers implementing the MCH/Supplemental Feeding Program. Due to a reorganization of the supervisory system in the first part of 1987 data is not available for the first three months of the reporting period and up to the time of the writing of this report we have been unable to get the data for the first three months of 1988 from the NCC. Figures 2&3 were made from the data in Table 2.

Figure 2 compares total attendance for pregnant women and children at the health centers with the number of beneficiaries receiving food for the last six months of 1987. Total attendance for children includes attendance of both normal children, who do not receive food, and underweight children who do receive food. ADRA made it's last deliveries to health centers in June of 1987 when it's stocks of sorghum and NFDM finished. By September all health centers had distributed the commodities in their stores but ADRA still had a stock of oil in it's warehouse. It was decided to distribute this oil during September and October. This distribution resulted in the October jump in beneficiaries receiving food. It also seemed to have a positive effect on overall MCH health center attendance as seen in the two top lines in Figure 2. Overall attendance dropped again though in December when the oil finished.

It is difficult for us to determine, with the data we have available to us, the percentage of underweight children who benefit from the program living within the service areas of the health centers running MCH/Supplemental Feeding Program activities. As it is, the program is targeted to those who come to the health centers. Ideally there should be some sort of activity to reach those who for one reason or another do not come but with the close-down of the program approaching in three months we do not feel in a position to initiate such activities. We do feel that the strategy of targeting underweight children rather than all under twos, has been successful in that it has made the program much more manageable at the center level and has made the program available to those who need it most.

The ration has proven adequate for reaching the program objective of increasing health center attendance. This is clearly seen in Figure 2 with the increase in overall attendance in health centers that was associated with the distribution of oil in September and October.

During February and March 1988 five additional health centers were included in the program bringing the total number of participating health centers to 36.

B. Discussion of Achievements for Objective Two

1. Improved regular attendance at the health center. For this benchmark we would like to see an improvement in the regular attendance of all children, regardless of whether or not they are receiving food. As an indicator of progress towards this benchmark, we have chosen to record the number of children who were not weighed the previous (last) month. This number, along with the number of children gaining weight and the number of children not gaining weight make up the total attendance for children under five.

As can be seen from Figure 3, the percentage of children not weighed last month was high, close to 45% during July through October. In November the percentage suddenly decreased to 30% and was only slightly higher in December. We believe this sudden decrease was associated with the distribution of oil during September and October. Food commodities encourage regular attendance.

2. Number of children rehabilitated by the program each month. This benchmark was set to measure the number of underweight children who received food and became normal weight and were thus discontinued from the feeding program. It is not possible to get this number using our normal program records. We had planned to include it but then left it out for the sake of simplicity.
3. An increase in the number of children gaining weight each month. Although we do not have sufficient data to show whether the number of children gaining weight is increasing, Figure 3 shows that the the percentage of children gaining weight each month increased more than 10% during the last six months of 1987.
4. A decrease in the percentage of children less than 80% weight for age. The number of children less than 80% weight for age is determined by the number of children receiving food. We have found that this benchmark is not useful since we are only giving food to underweight children. We have found that often there is an increase in the percentage less than 80% weight for age due to an increase in the number of women wanting to enroll in the program.

5. An increase in the number of women who can correctly mix the Oral Rehydration Solution (ORS). Although training in ORT is part of the health education given in the health centers, our program has not yet given it special emphasis and we have no data collected referring to it.
6. An increase in the percentage of children completing the immunization schedule. The National Immunization Programme has been extremely successful, especially in Khartoum Province. Although ADRA is not directly involved in the immunization program, the ADRA program does support it through education and increased attendance at the health centers. During the reporting period, as seen in **Figure 4**, the percent of target completing the immunization schedule with DPT 3 increased from 52% in 1986 to 78.6% in 1987 and the percent receiving Measles increased from 37% in 1986 to 53.6% in 1987. The above chart and data are from the MOH EPI Annual Report - 1987 (Summary).

C. Discussion of Achievements for Objective Three

One of the biggest achievements made by our program has been in the area of improved coordination of curative and preventive MCH services in the health center. Previously, each center had two days per week for children, two days for antenatal care, one day for family planning and one day for home visits. Also there was a tendency for MCH services to be vertical programs without much coordination and cooperation at the center level. During the past year ADRA has helped sponsor a training program in integrated MCH service delivery. In this program all personnel responsible for MCH services in health centers have been trained to deliver all MCH services on a daily basis. In addition, each has been oriented to all the MCH services so that they can speak in an informed manner on any MCH topic and can coordinate better with other MCH personnel.

During April, May and June of 1987 31 health centers were trained in integrated MCH service delivery. During the next three months an evaluation of the training was done and plans were made for workshop that would review the results of the evaluation and give recommendations for further training activities. The workshop was held October 27 & 28. An additional 15 centers have been trained since the workshop.

Another major achievement has been the development of an MCH/growth monitoring flipchart. The flipchart is a joint effort between the Faculty of Community Medicine, University of Khartoum, the Nutrition Division, MOH and ADRA. The messages for the chart were developed through the use of numerous focus groups and the pictures have been pretested many times with groups of women around and in Khartoum. This is the first time the Nutrition Division has had educational materials that have been prepared with the assistance of the intended audience. The flipchart has been at the printers since January and we have been expecting it any day for quite some time now.

Plans for the introduction of nutrition demonstrations in all health centers have failed due to disagreements among NCC and MOH personnel as to how such demonstrations could be done and who would do them.

D. Discussion of Achievements for Objective Four

We have not been altogether successful in reaching the benchmarks set for this objective. There was a plan made by the NCC at the beginning of this reporting period for three supervisory teams to be operating in the three medical districts of Khartoum Province. Each team would be composed of various MCH personnel and would supervise all aspects of MCH activities in each health center. The teams were formed and started training for the integrated MCH service delivery program. Then we began to have problems with the availability of vehicles. As part of our plan for phase over, ADRA had assigned three vehicles to the NCC for this purpose, but often they were assigned by the MCH director of the NCC for other activities. Various efforts have been made to ensure that they would be available for training and supervision activities but with only partial success. This is part of the reason we still do not have the growth monitoring and attendance reports from the nutrition supervisors for the first three months of 1988.

IV. PROGRAM COST CONSIDERATIONS

Cost increases have been handled by use of local currency funds supplied by USAID Sudan and a redesign of the program. The redesign allowed the food to be targeted more toward the children of highest risk. Monetization has not been encouraged in Sudan in the past.

V. PLANS FOR PHASEOUT OF PROJECT ACTIVITIES

Funding for this project ends the end of July 1988. At that time feeding activities will cease. We trust that the educational and integrated MCH activities will continue and that supervision will be adequate. With the permission of USAID, ADRA plans to give the four vehicles purchased with project money to the NCC to continue supervision.

ADRA/SUDAN OUTREACH FINANCIAL REPORT

April 1987 - July 1988

EXPLANATION	BUDGET	EXPENSES	UNDER(OVER)
A. Program Administration/Supervision/Monitoring			
1. Office Rent/Expense	\$56,277.79	\$47,607.08	\$8,670.71
2. Salaries, Benefits Local Hire	\$.00	(\$40.84)	\$40.84
3. Salaries, Benefits Expatriate	\$165,000.00	\$210,026.81	(\$45,026.81)
4. Supplies/Equipment	\$10,000.00	\$6,009.42	\$3,990.58
5. Telecommunications	\$5,621.21	\$4,893.35	\$727.86
6. Vehicle Operation/Maintenance	\$20,751.00	\$3,971.77	\$16,779.23
Sub-Total	\$257,650.00	\$272,467.59	(\$14,817.59)
B. Commodity Storage			
1. Fumigation	\$1,000.00	\$598.70	\$401.30
2. Loading/Unloading	\$167.14	\$630.03	(\$462.89)
3. Security	\$150.00	\$748.92	(\$598.92)
4. Warehouse Rental	\$16,794.86	(\$1,205.91)	\$18,000.77
Sub-Total	\$18,112.00	\$771.74	\$17,340.26
C. Commodity Movement			
1. Contract Direct Movement	\$5,882.00	\$6,660.42	(\$778.42)
2. Vehicle Operations/Maintenance	\$1,576.11	\$2,044.12	(\$468.01)
3. Management Systems	\$7,942.89	\$4,929.76	\$3,013.13
4. Logistics Systems	\$13,599.00	\$16,418.29	(\$2,819.29)
Sub-Total	\$29,000.00	\$30,052.59	(\$1,052.59)
D. Complementary Development Inputs			
1. Audio-Visual Equipment	\$500.00	(\$508.26)	\$1,008.26
2. Consultants	\$8,000.00	\$13,240.65	(\$5,240.65)
3. Educational Materials	\$13,000.00	\$13,064.43	(\$64.43)
4. Professional Journals/Materials	\$500.00	(\$126.74)	\$626.74
5. Training	\$2,000.00	(\$200.00)	\$2,200.00
Sub-Total	\$24,000.00	\$25,470.08	(\$1,470.08)
E. Headquarters Overhead			
Sub-Total	\$52,490.00	\$52,490.00	\$.00
GRAND TOTAL	\$381,252.00	\$381,252.00	\$.00

EVALUATION REPORT
for
ADRA/SUDAN PL480 TITLE II MCH PROGRAM

First Draft Field Report

August 14, 1988

Khartoum, Sudan

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I. Introduction

A. The Evaluation

ADRA/International sent two representatives to Sudan to work with the field workers for the PL 480 Food Supplement Maternal and Child Health (MCH) Program Evaluation. The evaluation team consisted of five members. The team conducted its evaluation in three weeks between July 21 and August 14, 1988. Unfortunately, the first week the evaluation work was supposed to start was a special Idd Festival of the Muslim. All the offices were closed. The evaluation team held its first meeting five days behind schedule. The evaluation work had a second drawback because of a disastrous rain which caused flood and severely hampered the communication and transportation systems of Khartoum Province. However, the evaluation team was still able to achieve much of its work in these adverse conditions.

After the first planning meeting of the evaluation team on July 27, the team followed the schedule quite closely (See Appendix A). The survey questionnaire was prepared by the team on July 28 and 29. We conducted three focus group interviews on August 1, 2 and 3 (See Appendices B, C and D). The team had scheduled to visit six MCH centers during the week. As mentioned earlier, bad transportation due to the flood made the visitation difficult (See Appendix F). The evaluation team had arranged a three person survey team to conduct an informal survey on August 7 and August 8 at two of the selected centers (See Appendix E). On August 2, 4, 10 and 11, the team conducted interviews with a few of the key informants (See Appendix G). The evaluation team held its final meeting on August 14 to go through all the findings and recommendations of the evaluation. A draft of the field report was prepared and printed before the two representatives from ADRA/I left the country on August 15.

1. Purpose

The following five areas of concern are the purposes of the evaluation:

- a. To assess the overall development of ADRA's ability to plan and implement primary health care programs in the setting of using Food Aid to strengthen the existing Sudan Ministry of Health MCH Program.
- b. To assess the degree to which project objectives were achieved.
- c. To review the implementation process with particular attention to the relationship of ADRA

health project management and activities to other organizational entities involved.

- d. To identify constraints, both internal and external to the project, that have impeded effective implementation and lessons learned.
- e. To derive recommendations based on the lessons learned from the evaluation.

2. Methodology

ADRA/International has adapted Krishna Kumar's Rapid, Low-Cost, Data Collection Methods for A.I.D. in an attempt to make it useful to development workers managing projects funded by USAID. (1)

The following Rapid, Low-Cost Methods were used in the evaluation of the PL480 Title II MCH Program:

- a. Key informant interviews-- these interviews involve discussions on specific topics with knowledgeable persons in order to obtain data, opinions, and perspectives on the topics. The evaluation team used this method to interview the nutrition officer, the director of nutrition education, the officer of Ministry of Health, and the Commissioner of Engineering and Health Affairs.
- b. Informal surveys--informal surveys differ from sample surveys in four respects: (1) they focus on only a few variables, (2) use a small sample size, (3) use non-probability sampling, and (4) permit more flexibility to the interviewers in the field. Informal surveys generate data that can be statistically analyzed. The evaluation team used this method to survey the MCH program beneficiaries-- the mothers.
- c. Direct observation--this method involves systematic observation of a phenomenon or process in its natural setting. It usually requires the interviewing of key informants as well. The evaluation team visited six MCH centers and interviewed the nutrition agents.
- d. Focus group interview--there are two distinguishing features of a focus group interview. The group itself is homogenous, members share similar background and experience. Second, the discussion is focused on specific topics with group members expressing their ideas, experiences, and opinions on the topics. The evaluation team arranged three focus group meetings with the medical officers, the health visitors, and the nutrition educators.

B. Historical Background

1. Regional Background

Sudan, the largest country in Africa, lies across the middle reaches of the Nile River and is bounded by Egypt, Lybia, Chad, the Central African Republic, Zaire, Uganda, Kenya, Ethiopia, and the Red Sea.

From south to north, Sudan has tropical forests and savanna; vast swamplands, open semitropical savanna, and scrublands, and sandy, arid hills lying between the Red Sea and the Libian and Sahara Deserts.

The climate varies with the terrain and latitude. Khartoum, at the junction of the White and Blue Niles, has a desert climate. It is the capital of Sudan, and is comprising Khartoum, Omdurman, and Khartoum North. Sudan has a population of 21.1 million (1984). Infant mortality rate was 118.9/1000, and life expectancy was 47 years as reported in 1985. (2)

Since 1980, Sudan suffered from drought which persisted for as much as seven years in the far northern-western regions and an average of three years in the central-southern regions. Many years of political stagnation had left Sudan's government institutions in very poor condition. Civil war and troubles on some of its border countries further complicated the situation.

Comprehensive nutrition surveys conducted independently by PVO's and government organizations reveal that a significant number of pockets of malnutrition especially in the peripheral margins of urban areas which are still heavily populated by displayed drought and war victims. (3)

2. ADRA's experience and other organization development activities in the region

Sudan was not originally in the master plan of ADRA/International. Due to the interest of the Government of Sudan in restarting the food supplementation program through its health centers, ADRA was invited by USAID to explore possibilities of implementing such a project. When ADRA began the maternal and child health (MCH) program in 1984 the Ministry of Health (MOH) considered it a continuation of a previous Catholic Relief Service's (CRS) program. There had been considerable problems with the CRS program that lead to the eventual expulsion of CRS. ADRA was aware of the feelings on the part of the MOH and moved carefully to implement the program.

3. The Maternal and Child Health Project's Base

The project was a targeted PL480 Title II Food Supplementation and Nutrition Education program, to be implemented in partnership with the Commission through existing health centers in the National Capital Province of Khartoum.

C. Relevant Policies

1. Donor Policies and Strategy

The Agency of International Development Handbook describes the transfer of food commodities for use in disaster relief and economic development and other assistance as follows: "...to meet famine or other urgent or extraordinary relief requirements; to combat malnutrition, especially in children; to promote economic and community development in friendly developing areas, and for needy persons and nonprofit school lunch and preschool feeding programs outside the United States."

ADRA/International has prepared a handbook on Policies and guidelines for the Use of Food Aid and it covers the USAID policies in Food for Peace Program and Maternal and Child Feeding Program. (4)

2. Government of Sudan's Development Policies

As it is described in the agreement made between the Government of Sudan and ADRA. There has been an expressed interest by the Government of Sudan in using a feeding program to not only address the problem of malnutrition in the under five age group, but also as incentive to improve health related behaviors of families with children under five. The Ministry of Health wanted to strengthen its existing maternal and child health centers as well. (5)

II. The Project

A. Overview

1. Purpose and Objectives

ADRA's maternal and child health project purpose was to meet the serious challenge of malnutrition in children. This purpose was carried out in the following objectives:

- a. To provide a monthly food ration to at least 75,000 malnourished children and their pregnant mothers

through health centers in NCC Province over a five year period.

- b. To improve health and nutrition related behaviors of the target population particularly in regular growth monitoring, weaning practices, management of infant diarrhoeal episodes, and compliance with immunization schedules.
- c. To improve the service delivery capability of the health centers utilized, specifically in the areas of regular growth monitoring, nutrition education, in the usage of ORS or management of infant diarrhoeal episodes, education in immunization and improved coordination of these services with each other and with curative maternal child health services to contribute to more effective comprehensive MCH health care delivery.
- d. To improve the NCC/Nutrition Division's supervisory and training capability in the above mentioned areas of operation.

These four objectives were laid down when the agreement was signed in October, 1984. The first objective was later ammended in early 1986. The number of beneficiaries was changed from 75,000 to 25,000, and the project period from five years to three.

2. Strategy

Logistics arrangement for food distribution was first to be established. The training of the centers' personnel was planned. A supervision and reporting system was designed to control the program. A growth monitoring program for the malnourished children was implemented. Health education, particularly in the areas of growth monitoring, oral rehydration therapy, breast feeding, and immunization, was given to the mothers of the malnourished children. The food supplements were used as incentive for participation in the MCH program at the health centers and as a source of supplementary food intake.

B. Process

1. Project Chronology

Implementation of program activities in health centers began in November, 1985. During the first half of 1986 the program has been established in 23 of the National Capital Commission's (NCC) health centers in Khartoum, Omdurman and Khartoum North. Due to unforeseen problems in implementing the original program objectives, parts of the objectives were changed in April, 1986 and were

implemented in July in Khartoum North. During August the revisions were implemented in Khartoum and Omdurman. The original program targeted beneficiaries as "all children 4-24 months, under weight children of 25-60 months, lactating mothers, and pregnant women (75,000 beneficiaries). The new target population was children 4-60 months who were less than 80% weight-for-age and their pregnant mothers.

In September, 1986, seven centers were added bringing the total number of health centers to 30. Again by December, five more centers were added, but insufficiency of staff led to temporary stagnation to two of the five centers.

In early February 1987 ADRA/Sudan received notification from NCC that the project was terminated effective January 31, 1987. The notice was a result of misunderstanding and lack of adequate communication on both sides--ADRA and NCC. ADRA/Sudan had notified the Commissioner of Health of the NCC that cuts in the FY87/88 budget were possible. This led the Commissioner to believe that ADRA was not fulfilling the budgetary element of the project agreement signed in 1984. The disagreement prompted the coming of the director of ADRA for Middle East, to Khartoum. After a series of discussions the NCC agreed to continue the program. However, the program was disturbed for two months, and it only resumed in April. (6)

The supply of food commodities faced a tremendous draw back in 1987. Commodities were held up in Port Sudan for many months. By August, only nine health centers had commodities to distribute. The food commodities being held back in Port Sudan were cleared in February, 1988. By that time the Seaport Authority had sold all the milk, and the sorghum grits were unusable, only the oil remained usable, and that was distributed until the program finished in July, 1988.

2. Monitoring and Reporting

The monitoring and reporting system was divided into two stages. From the beginning of the program, ten nutrition officers were responsible to supervise all the health centers. They were to visit them and to give monthly reports of their visits to the ADRA/Sudan MCH office. This arrangement carried on until the beginning of 1987 when the program was closed for two months.

When the program resumed in April, 1987, a new arrangement for supervision and reporting was planned. Three supervisory teams were supposed to visit all the health centers to give training to the center staff

and collect reports from the centers as well. However, this new arrangement seemed to have difficulty in getting the reports to ADRA office.

3. Technical Support

During April, May and June of 1987, 224 staff from 31 health centers were trained in integrated MCH service delivery. Those trained included doctors, nurses, health visitors, midwives, nutrition educators, vaccinators and clerks. Training was done by three teams, one for each of the three medical districts in the National Capital Region. Each team was led by the district senior medical officer and included a health inspector, health visitor, nutrition officer and medical assistant. Training was done in the health centers. One day was spent reviewing the importance of each MCH service, i.e. immunization, nutrition, control of diarrhea, prenatal care, family planning. The following day was spent helping staff organize and deliver all services in one day rather than on special days as before. One week later a third follow-up visit was made to each health center.

During the next three months an evaluation of the training was done and plans were made for a workshop that would review the results of the evaluation and give recommendations for further training activities. The workshop was held in October 27 and 28, 1987.

4. Management

During 1985 and 1986, ADRA/Sudan was working very closely with the Ministry of Health. Close supervision and reporting was carried out. Logistic arrangements for the food commodities seemed to work smoothly with good supervision.

After the misunderstanding that caused the program to stop for two months, management responsibility was shifted from the ADRA MCH program office to the NCC office. During negotiations to reopen the program it became clear that the NCC wanted a greater say in the administration of the program. ADRA was not opposed to the idea because it suited the principle of sustainability and the phasing over of the program responsibilities to the NCC. The NCC then took over the supervision and reporting responsibilities and the four vehicles as well.

5. Accounting and Funding Patterns

According to the original agreement signed in 1984, ADRA/Sudan was to receive US\$ 2,202,400 in the form of a USAID Outreach Grant. This would be available for

years one, two and three of the program. Unfortunately, due to budget cuts in Washington, this amount was reduced for year two and three. These budget cuts had caused misunderstanding between NCC and ADRA and as a result the closing of the program for two months.

Cost increases have been handled by use of local currency funds supplied by USAID/Sudan and a redesign of the program. Monetization has not been encouraged by USAID/Sudan.

Funding for the PL480 Title II MCH Program ended the last of July 1988.

6. Relations between ADRA project and the Government

ADRA/Sudan has had a very good working relationship with the Ministry of Health and the National Capital Commission of Khartoum. USAID/Sudan was very supportive as well.

However, there seemed to be some problem in the working relation between the officer of the Ministry of Health and the MCH director of NCC.

C. Outcomes

1. Achievements

ADRA worked with the National Capital Commission (NCC) to strengthen their Maternal and Child Health (MCH) Program. One major input ADRA has made was to integrate their MCH services. The health centers used to have two days of prenatal care, two days of child health, two days of immunization, and one day of family planning. ADRA and NCC conducted workshops and training sessions to put all the services into a six day integrated service program now functioning in all of their MCH centers.

ADRA has built up an excellent working relationship with the NCC, the Ministry of Health, and the USAID/Sudan during the PL 480 Project.

The attendance at the thirty MCH centers was greatly increased during the food supplement period. Mothers had incentive to come to the centers, and they were benefited by the food and the health education given to them by the Health Visitors and Nutrition Educators.

ADRA was able to work with NCC to produce five hundred copies of health education flip charts to be distributed to the health centers as educational

materials for the mothers and children.

2. Impact

There were indications that the malnourished children who received the food supplements have increased their percentile of weight.

More mothers have learned to use Oral Rehydration Solution, realized the importance of breastfeeding, and the growth monitoring after coming to the MCH centers as indicated in the results of the survey done on the 44 mothers.

Immunization program was the best service of the MCH program because of the good records on the growth charts and the mothers' keen compliance with the immunization schedules.

The workshop and training sessions that ADRA organized for the Health Visitors and Nutrition Educators had positive impact on their service efficiency.

III. Discussion and Recommendations

A. Issues: Strengths and Limitation

1. ADRA/Sudan felt the greatest constraint to be the inadequacy of personnel. There was discrepancy on manpower between the original agreement and the actual implementation of the project.
2. Inconsistency and inadequate funding had mandated the reduction of beneficiaries from 75,000 to 25,000 of its original objective.
3. The food supplement target population was confined to only the 80% weight for age malnourished children from age 0 to 60 months instead of all the children under aged two.
4. The working relationship that ADRA had with the MCH program personnel of the Ministry of Health and that of the NCC was not clearly defined.
5. Following the ADRA/NCC workshop on the MCH integrated program, three supervisory teams were supposed to have been organized to supervise and to coordinate the health centers, but so far only one team is functioning.
6. The original plan called for two technical persons in the project in addition to a country technical supervisor working under the country director. The ADRA personnel at all levels found themselves with

responsibilities extending nation wide instead of confined to the Khartoum Project.

7. There was a impounding of commodities at the Port of Sudan and a delay in their release and transport.

B. Recommendations

1. ADRA's role for the future MCH program for the NCC should mainly be the training of key leadership personnel in supervision and coordination.
2. ADRA has been requested by NCC to assist in strengthening the MCH health information system both in generation of data and effective feed back to the health centers.
3. The NCC has requested ADRA to seek funding for the development of additional educational materials in smaller format for clinic and rural usage, followed by workshops for their implementation.
4. ADRA should work closely with NCC to supervise the distribution and usage of the existing flip charts.
5. The NCC has requested ADRA to seek funding to strengthen the family planning program in Khartoum Province.
6. There is need for more frequent consultation and technical back stopping from ADRA/International to ADRA/Sudan.
7. There is a need for a country wide technical director to oversee all the country projects in Sudan.

VII. Appendixes

Appendix A: Evaluation Team Meeting Records

First Meeting

Date: July 27, 1988

Time: 10:30 a.m.

Place: ADRA/Sudan Office

Member Present: 1. Glenn Mitchell 2. Omer Dafallah
3. Edwin Dysinger 4. James Wu

Member Absent: Harvey Heidinger (arriving on August 8)

Invited Member: Cami Dale

1-1 Evaluation Team Members

Agreed to have six members in the evaluation team. Dr. Omer agreed to invite one more representative from the Ministry of Health. The members are:

1. Harvey Heidinger	2. Glenn Mitchell
3. Omer Dafallah	4. Edwin Dysinger
5. James Wu	6. (To be appointed)

1-2 Evaluation Team Meeting Schedule

It was decided to hold three meetings during the evaluation period. All meetings will be held at the ADRA/Sudan office and the dates listed as follow:

July 27 (Wednesday)

August 9 (Tuesday)

August 14 (Sunday)

1-3 Purpose of Evaluation

The Team reviewed the purposes listed in the agenda and agreed. (See agenda item 3)

1-4 Project Objectives

The Team reviewed the objectives as listed in the agenda and a few comments were made. The Team consented with the objectives. (See agenda item 5 and 6)

1-5 Methodology and Outcomes

The Team discussed on the use of Rapid, Low-cost Methods of evaluation which included the methods of key informant interviews, focus group interviews, community interviews, direct observation, and informal surveys.

The Team also looked at the two main areas of outcomes--the process and the impact.

1-6 Arrangement for Key Informant Interviews

The following key informants would be arranged for the Evaluation Team to make courtesy calls and interviews:

Ministry of Health (MOH)--Dr. Zohar Ali Ah
Ms. Alawia El Amin
National Capital Commission (NCC)--Dr. Omer Dafallah
Dr. Shaad Serro
Ms. Fatiah
Ms. Beatrice
Ms. Awadia Alhuch
Mr. Mamoun A Sherfi
USAID/S--Mr. Koehoring
Mr. Streong
Mr. Cellahan
Dr. Ali Albili

The Team assigned Glenn Mitchell to be responsible to make appointments with the USAID/Sudan key informants. Harvey, Glenn and James would make visits on August 9 or 10 if possible.

The Team assigned Omer Dafallah to be responsible to make appointments with the MOH and NCC key informants. Omer, Harvey and James would make courtesy calls and interviews on August 10 (Wednesday) if possible. Omer would confirm the arrangement on August 7 (Sunday).

1-7 Arrangement for Focus Group Interviews

Three focus groups would be arranged for group interviews. James would be responsible to prepare interview questions for the team and to be the key interviewer. The three focus groups were: (1) Medical Officers, (2) Health Visitors, and (3) Nutrition Educators.

All focus group interviews would be held in the morning from 10:00a.m. to 12:00 noon at the NCC Administration and Training Center.

Medical Officers meet on August 1 (Monday)
Health Visitors meet on August 2 (Tuesday)
Nutrition Educators meet on August 3 (Wednesday)

The Team agreed to pay each participant who comes to the group interview 120 Pounds for travel expense and per diem.

Four representative MCH centers from each of the three areas of Khartoum, Khartoum North and Omdurman were selected based on the variances of large and small population, higher and lower living standard communities, good and bad reporting and service performances. The selected centers are listed:

Khartoum: (1) Samir
 (2) El Kalakala
 (3) Segena
 (4) Sahafa West
 Khartoum North: (1) Shabia
 (2) Kobar
 (3) Hial kuku
 (4) Haj Yousif
 Omdurman: (1) Daw Hajoj
 (2) El Higera Abd El Monieum
 (3) El Higera Wad Nubawi Shimal
 (4) Um Bada

1-8 Arrangement for Field Visits at MCH Centers

The following arrangements were made to visit some of the representative MCH centers in order to make direct observations:

<u>Date</u>	<u>Time</u>	<u>Center</u>
August 1 (Monday)	8:00a.m.	Sahafa West (Khartoum)
August 2 (Tuesday)	8:00a.m.	Samir (, ,)
August 3 (Wednesday)	8:00a.m.	El Kalakala (, ,)
August 4 (Thursday)	8:00a.m.	Segena (, ,)
August 7 (Sunday)	8:00a.m.	El Shimal (Omdurman) Um Bada (, ,)
August 8 (Monday)	8:00a.m.	Shabia (Kh. North) Hial kuku (, ,)

1-9 Arrangement for Rapid, Low-cost Informal Survey

The Team discussed the feasibility of conducting a survey on the main beneficiary of the PL480 Project-- The mothers in the MCH centers' communities. The Team came to a consensus that a survey with the main objective of finding the impact of the MCH nutrition and preventive health education before and after the implementation of the PL480 Project by means of a rapid, low-cost informal survey to be conducted at two selected centers would be feasible.

With the limitation of time and budget, a three member survey team would be appointed to survey the mothers of two MCH centers only. Omer would be responsible to select a team leader and two members who would have a master degree with working experience. Two representative centers were selected for the survey--Samir of Khartoum and El Shimal of Omdurman.

A training session would be held on August 4 (Thursday) for the survey team at 10:00a.m. at the NCC Administration and Training Center.

The survey would be conducted on August 7 (Sunday) at Samir and on August 8 (Monday) at El Shimal. The collected data should be sent in to the ADRA office on August 9 (Tuesday) by 10:00a.m.

A stipend would be given to the leader and members of the survey team. For the training session--leader:150 Pounds, members: 125 Pounds each. For each survey day--leader: 250 Pounds, members:200 Pounds each.

Edwin and James were assigned to prepare the survey questionnaire to be presented to the Evaluation Team members on August 1 (Monday) for input. All printed questionnaires should be prepared by August 4 (Thursday) during the training session.

The Meeting was adjourned at 2:00p.m.

Second Meeting

Date: August 9, 1988

Time: 8:40 a.m.

Place: ADRA/Sudan Office

Member Present: 1.Glenn Mitchell 2.Omer Dafallah
3.Edwin Dysinger 4.James Wu

Member Absent: Harvey Heidinger (has not arrived)

2-1 Approval of Last Meeting Minutes

The members reviewed the last meeting minutes and made the following note:

Dr. Omer was not able to recruit any team member from the NCC. The Evaluation Team will then consist of five members instead of six.

The last meeting minutes were approved.

2-2 Evaluation Progress Reports

a.The team members reviewed the project objectives and evaluation methodology again.

b.Focus Group Interview: James gave a report on the three focus group interviews which were conducted on August 1, August 2 and August 3. A summary report has been prepared for each focus group interview. The team members went through the three reports on medical officers, health visitors, and nutrition educators focus group interviews.

c.MCH Center Visitation and Direct Observation: According to the visitation plan, the team was supposed to have visited eight centers between August 1 and August 8. However, due to the flood condition, Omer and James were able to visit only three so far. They hope to visit one or two more

centers before a report on direct observation is written.

d. The three member survey team has done their survey on August 7 and August 8 as scheduled. The survey data were sent with Dr. Omer to ADRA office on August 9 in the morning before the second evaluation team meeting. The survey team did their survey in two centers and 44 questionnaires were completed and submitted together with a summary note written by the team leader.

e. Key Informant Interviews and Appointments: So far the team was able to interview two key informants from the NCC. Omer has made an appointment with the Ministry of Health Commission Mr. Mamushafi on August 10. Glenn will try to contact the key informants of the USAID again.

2-3 Outline Sample of the Final Report

James shared with the team members concerning the final report of the evaluation. The ADRA head office has provided an outline sample for reference. The team had no objection to the format of the final report.

2-4 Input from Team Members for the Final Report

Team members were urged to give input and observations any time till the last evaluation team meeting on August 14 before the first draft of the final report is written.

2-5 Next Evaluation Team Meeting

The third and final evaluation team meeting will meet on August 14 (Sunday) at 10:30 a.m. at the ADRA office.

The meeting adjourned at 9:10 a.m.

Appendix B: Focus Group Interview--Medical Officers of MCH Centers

Date: August 1, 1988

Time: 10:30a.m. to 1:30p.m.

Place: NCC Administration and Training Center, Khartoum

Attendant: Members of the Evaluation Team:

1.Edwin Dysinger

3.James Wu

2.Omer Dafallah

4.Cami Dale (Invited)

Medical Officers from MCH centers:

1.Isam Ali

4.Abubaker Khider

2.Hassan Babiker

5.El-Hadi Osman

3.Isam Mabamd Al

Summary of Group Session:

The meeting started at 10:30a.m. with Dr. Omer giving an introduction of the purpose of the interview and the background of the evaluation process.

James then explained to the medical doctors the question sheets. The doctors were intructed to work individually on the questions. They were to come back as a group for open discussion concerning the ideas they had on the questions.

The doctors took about an hour to finish the question sheets. The group came back at around 11:30a.m. to begin the discussion which lasted for two hours. The meeting ended at 1:30p.m.

During the discussion, Edwin, James and Cami asked questions centering around the services of the MCH centers. Two doctors responded readily in fluent English, while the other three expressed their views in Arabic and Dr. Omer translated.

Description and Rationale for the Group Composition:

Twelve medical officers from twelve MCH centers were supposed to come for the interview. The twelve were to be representatives from the three regions of Khartoum, Omdurman, and Khartoum North. The four centers from each region were selcted because of their differences in community settings, level of performance in the past, and population distribution. The twelve centers would make a representative sample of all 40 MCH centers that have been involved in the PL 480 Food Supplement Program.

However, due to the flood condition and inadequate communication and transportation only five doctors came to the meeting. Two of them from Omdurman and three from Khartoum. We did not have any doctor represent Khartoum North.

Core Issues for Discussion:

The main issues of the interview were to determine the MCH service delivery capability in the areas of regular growth monitoring, nutrition education, ORT, immunization, and secondarily, to determine the coordination of these services with each other and with curative maternal child health services.

The Main Findings:

1. Service coordinatin of the centers is not satisfactory due to the lack of involvement of the medical officers. The doctors felt that they were not informed of the program of the maternal and child health care promoted by ADRA/NCC. There seems to be very little coordination between the preventive and curative services in the centers.
2. The doctors felt that the reporting system did not help improve the service capability of the centers. To them the purpose of keeping records is to identify community problems and justify the need for drugs, manpower, and personnel. However, the health centers had never received feedback from the higher level of authority concerning their needs.
3. The doctors seem to have a bad impression concerning the quality of the sorghum distributed as food supplement. They said the mothers did not want it or just used it to feed their chickens, and that children who took the sorghum even got diarrhea from it.
4. The doctors seem to be aware of the integrated service system of the centers. They agreed that integrated service is important and beneficial.

Recommendations:

1. It is important that the medical officers should be informed of the overall maternal and child health program. They should be involved. They are the directors of the centers. It would enhance the whole program if the doctors are interested and could give support and training to the health visitors and nutrition educators. The preventive and curative services could be coordinated better with the help of the doctors.
2. The doctors recommended that to increase the sustainability of the programs, ADRA needs to concentrate more on training key individuals who can then take over after the feeding program is finished. They suggested that after a three year feeding program it would be appropriate to continue with a two year training program.

3. ADRA should have conducted this kind of focus group meeting during the course of the program when improvement can be made, and not just at the end of the program.

Conclusions:

1. The opinions expressed by the group may not represent the views of all the MCH center doctors because of the poor representation.
2. The group agreed unanimously that the directors of the centers--the medical officers, are not involved by the program organizers.
3. The doctors' opinion concerning the sorghum was not in agreement with the views expressed by the health visitors and nutrition educators, who said the mothers liked the sorghum because it is easy to prepare. The reason for the contradictory views might be due to the lack of actual involvement of the doctors in the feeding program.

Appendix C: Focus Group Interview--Health Visitors of MCH Health Centers

Date: August 2, 1988

Time: 10:00a.m. to 1:00p.m.

Place: NCC Administration and Training Center, Khartoum

Attendant: Members of the Evaluation Team:

1.Omer Dafallah 2.James Wu

Health Visitors from MCH centers:

1.Awatif Eskander 4.Um El Hassan Moh

2.Gasom Awad Moi 5.Shama Sharaf

3.El Toma Mossa 6.Aesha Abdalhafee

Summary of Group Session:

The meeting started at 10:00a.m. with Dr. Omer giving an introduction of the purpose of the interview and the background of the evaluation process.

James then explained to the health visitors the question sheets. The six health visitors were then divided into two groups to work on the questions. Each group was led by a translator arranged by Dr. Omer.

The groups took about an hour and a half to complete the questions in Arabic. We then came together as a group for open discussion with an interpreter.

The discussion continued for an hour. There was good group participation and expression of views in Arabic.

Description and Rationale for the Group Composition:

Twelve health visitors from twelve MCH centers were supposed to come for the interview. The twelve were to be representative from the three regions of Khartoum, Omdurman, and Khartoum North. The four centers from each region were selected because of their differences in community settings, level of performance in the past, and population distribution. The twelve centers would make a representative sample of all the 40 MCH centers that have been involved in the PL 480 Food Supplement Program.

However, due to the flood condition and inadequate communication and transportation only six health visitors came for the meeting. One was from Omdurman and the rest were from Khartoum. We did not have any representative from Khartoum North.

Core Issues for Discussion:

The main issues of the interview were to determine the MCH service delivery capability in the areas of regular growth monitoring, nutrition education, ORT, immunization, and to determine the role of the health visitors in service delivery.

The Main Findings:

1. Due to the attraction of the food supplements, too many mothers and children came to the centers. The centers' staff found it difficult to handle the vast number of attendants.
2. Health visitors seem to be more concerned with the pregnant mothers and giving health education to them. These became their main responsibilities.
3. Only one-half of the health visitors had received training organized by ADRA/NCC. All expressed that they needed more training to deliver better services.
4. All the health visitors reported that the mothers liked the food supplements including the sorghum.
5. Attendance in all centers dropped when the food supplements stopped. The health visitors tried using health education and preparing food supplements to attract the mothers to continue coming to the centers with their children. However this seemed to be unsuccessful.

Recommendations:

1. The health visitors recommended that demonstrations for food preparation are important. There should be proper kitchen facilities and equipment to give demonstrations.
2. The MCH facilities should be improved. There are not enough benches for seating and no drinking water for the mothers and children.
3. Regular training should be conducted for the center staff.
4. More food supplements and constant supplies will help maintain the attendance and service of the MCH centers.

Conclusions:

1. The opinions expressed by the group may not represent the views of all the MCH center health visitors because of the inadequate representation from the selected centers.
2. The health visitors present expressed strong support for the food supplement program. They also realized the importance of health education for the mothers.

3. The MCH service capability can be strengthened if continuous education and supervision could be given to the health visitors.

Appendix D: Focus Group Interview--Nutrition Educators of MCH Health Centers

Date: August 3, 1988

Time: 10:00a.m. to 12:30p.m.

Place: NCC Administration and Training Center, Khartoum

Attendant: Members of the Evaluation Team:

1. Omer Dafallah 3. James Wu

2. Edwin Dysinger

Nutrition Educators from MCH centers:

1. Khadiga Mohumeh 5. Fatima Ibrahim Hassan

2. Nimat Ibrahim Haraun 6. Fatma Ibrahim Mahemad

3. Aniema Mohamed

4. Amna Elfendous Ali

Summary of Group Session:

The meeting started at 10:00a.m. with Dr. Omer giving an introduction of the purpose of the interview and the background of the evaluation process.

James then explained to the nutrition educators the question sheets. The six nutrition educators were then divided into two groups to work on the questions. An interpreter was helping the groups to answer the questions in Arabic.

The groups took about an hour and a half to complete the questions in Arabic. We then came together as a group for open discussion with an interpreter.

The discussion continued for an hour. The group seemed very enthusiastic in expressing their views in Arabic.

Description and Rationale for the Group Composition:

Twelve nutrition educators from twelve MCH centers were supposed to come for the interview. The twelve were to be representative from the three regions of Khartoum, Omdurman, and Khartoum North. The four centers from each region were selected because of their differences in community settings, level of performance in the past, and population distribution. The twelve centers would make a representative sample of all 40 MCH centers that have been involved in the PL 480 Food Supplement Program.

Six nutrition educators came for the interview, three from Khartoum, two from Omdurman, and one from Khartoum North.

Core Issues for Discussion:

The main issues of the interview were to determine the MCH service delivery capability in the areas of regular growth monitoring, nutrition education, ORT, immunization, and to determine the role of the nutrition educators in service delivery.

The Main Findings:

1. The feeding program attracted many mothers and children. The nutrition educators were able to educate the mothers concerning nutrition, child growth monitoring, immunization and breastfeeding.
2. The nutrition educators are very much involved in the actual weighing of the children, doing the growth monitoring, educating the mothers on giving oral rehydration to their children and how to prepare the sorghum food supplement.
3. The nutrition educators felt that teaching the mothers to use the growth charts and how to keep their children clean are two of their most important responsibilities.
4. All the nutrition educators indicated that the mothers and children liked the food supplements including the sorghum, especially when they were taught how to prepare the sorghum in many different ways.
5. Attendance in all centers dropped when the food supplements stopped. The attendance ranged from 60 to 200 a day when food supplementation was going on, and dropped to a range of 10 to 40 a day when the food supplements stopped at the centers represented.
6. All the nutrition educators agreed that because of the food supplementation program, about half of the malnourished children increased their percentile of weight.
7. The nutrition educators believed that about 90% of the mothers are breastfeeding their babies.
8. Before the food supplement program, mothers used to come with their children once every two or three months. During the food supplement program, they came monthly. When the food supplement program stopped, they went back to their old custom. This adversely affected the growth monitoring but not the immunization status.

Recommendations:

1. Regular training should be conducted for the nutrition educators.

2. More food supplements and constant supplies will help maintain the attendance and service of the MCH centers.
3. Food supplement is important for the malnourished children and should be continued.

Conclusions:

1. The opinions expressed by the group may not be representative of the views of all the MCH center nutrition educators because not all the selected representatives were present.
2. The nutrition educators have enjoyed working with more mothers who came to the centers during the food supplement program.
3. The nutrition educators seem to be very effective and qualified in helping the mothers to improve their health and that of their children.

Appendix E: Informal Survey Report

1. Background for the study

The PL 480 Title II MCH Program has greatly increased the MCH centers' attendance. This is verified by the attendance records. Because of the food supplements, more mothers have incentive to come to the MCH centers. Health and nutrition related behaviors of the mothers are expected to have been changed because of the lectures and personal counsel given to the mothers by the Health Visitors and Nutrition Educators in the centers.

2. Description of the study's purpose

The informal survey will try to examine the impact outcomes of the project's second objective which is to improve the health and nutrition related behaviors of the target population particularly in

1. regular growth monitoring,
2. weaning practices,
3. management of infant diarrhoeal episodes, and
4. compliance with immunization schedules.

With the limitation of time and budget, a three member survey team was appointed to do a questionnaire survey of the mothers who came to two MCH centers on a particular day.

The target population were the following three groups that came to the two MCH centers:

- a. All pregnant women
- b. All lactating mothers
- c. All mothers with children under five

The two MCH centers chosen are Samir and El Shimal. The two centers represent two regions and they are of average standing in attendance and service performance.

3. The methodology

The informal survey of the rapid, low-cost data collection methods is being utilized. The informal survey is characterized by three features: first, it focuses on a few variables; second, sample size is generally small; third, informal survey does not use strict probability sampling.

Informal survey can well be combined with the other rapid, low-cost data collecting methods to yield additional qualitative data on the study.

Since informal survey does not use rigorous probability sampling process, respondents to the survey may not accurately represent the population, At best the data

collected can be used to indicate trends and point up the extent of a problem or the effectiveness of intervention, in this case, the health and nutrition behaviors of the mothers and children that come to the MCH centers.

Since there is no previous data on the health and nutrition behavior patterns of the target population, the findings will not justify any true behavior changes. However, they can be used as indicators.

The questionnaire was prepared by the evaluation team. It was discussed with the three surveyors who are nationals with graduate degree in social science and with working experience.

The questionnaire was divided into two main parts. The first part was for general information and the second part dealt with health and nutrition behaviors.

4. A summary of the findings

1. Forty-four mothers were being interviewed. Twenty-two mothers from the Samir Health Center and 22 from El Shimal Center.

2. The educational background of the mothers is:

16 mothers are illiterate	36%
20 mothers have elementary education	46%
8 mothers have secondary education	18%

3. The mothers interviewed came to the centers for the following reasons:
 - 21 for prenatal care
 - 13 for child health
 - 10 for immunization
 - 7 for health education
 - 1 for food supplement
 - 4 for other reasons
4. The 44 mothers who were being interviewed can be categorized into the following:
 - 11 are pregnant mothers
 - 25 are lactating mothers
 - 28 are with child(ren) under five
 - 6 are pregnant with child(ren) under five
 - 16 are lactating mothers with child(ren) under five
5. The age distributions of the 44 mothers with one unknown are:
 - Below aged 20 = 6
 - Aged 20 to 29 = 19
 - Aged 30 to 39 = 17
 - Aged 40 & above = 1
 Youngest = Aged 15, oldest = Aged 40, average age = 27.5
6. Among the 44 mothers, 20 of them have received food supplements before.
7. Thirty three out of the 39 (85%) of the mothers (there are 5 first pregnant mothers) said they are keeping a growth chart with them, in comparison with the 20 mothers who have received food supplements before, 19 of them (95%) are keeping a growth chart.
8. Of all the mothers with children under five, 16 out of 28 (57%), said that their child has improved weight after coming to the center. While comparison with the mothers who have received food supplements, 17 out of 20 (85%) said that their child has improved weight. However, this could not be confirmed by checking the growth charts because most of the growth charts did not have proper growth monitoring data on them.
9. Ninety three percent of the mothers interviewed said they knew that breastfeeding is important. Eighty two percent said that they knew it before they came to the MCH center. And 95% of the 39 mothers who have children breastfeed them.
10. The average length of breastfeeding is one year and four months.
11. Mothers start weaning their children at the average age of four months.

12. Mothers who have come to the MCH center more than four months and who said that they learned Oral Rehydration Therapy in the center are 24 out of 37, i.e. 65%.
13. Mothers who claimed that they could make an ORS at home was 69%.
14. All mothers who have children claimed that their children are immunized.
15. All mothers who brought their child's growth charts with them and were checked by the interviewers showed a complete (up-to-date) immunization schedule.

5. Conclusions

1. The attendance of the two centers on both interview days was not satisfactory due to the heavy rain and flood condition.
2. Mothers who received food supplements indicated a better performance in keeping a growth chart with them.
3. Children who received food supplements showed greater possibilities in gaining weight.
4. Growth monitoring records were poorly done by the MCH center staff.
5. There was a 10% increase in mothers realizing the importance of breastfeeding after coming to the MCH centers, although breastfeeding seems to be a common knowledge for the mother in Khartoum Province.
6. Almost all the children of the mothers interviewed have had diarrhea, but only about 65% of the mothers knew how to prepare ORS even after coming to the centers.
7. The immunization program seems to be the most successful program of the MCH center and the growth charts were used mainly for the immunization records.

6. Recommendations

1. The growth chart can be better utilized. MCH center staff, especially the health visitors and nutrition educators, should help the mothers to understand the importance of growth monitoring for their children.
2. More mothers should know how to treat their children with Oral Rehydration Solution and how to prepare the ORS at home. MCH center staff should teach every mother the technique. Besides, personal hygiene and cleanliness should be promoted in relation to diarrhea management.

3. Food supplements seem to have positive effect on children gaining weight and consideration should be given to future planning to continue the food supplements for the malnourished children. However, care should be taken not to create dependency of the beneficiaries.

Appendix F: Direct Observation on Visitation of MCH Centers

1. Rationale for site selection

The plan for field visit was to select four centers from the Khartoum area, two centers from the Omdurman area, and two centers from the Khartoum North area. These centers represent different population density areas, communities of different living standards and difference in past performances in reporting and service. It was impossible for the evaluation team to visit more centers due to the limitation of time.

Due to heavy rain, many places in Khartoum province were flooded. The evaluation team was able to visit three centers in Khartoum, and three centers in Omdurman. The team could not make it to Khartoum North.

2. Description of the sites observed

Khartoum Area

1. Samir--Omer, Edwin and James visited this center on August 3 (Wednesday) around 9:00a.m. There were about fifty mothers and children sitting outside the maternal and child care service area. The staff were busy providing prenatal care for the mothers, vaccinating and weighing the children. There are two rooms for the services, one for prenatal care and the other for immunization, growth monitoring, and nutrition education. There seemed to be congestion in the second room, and we suspected that not all mothers who had their children vaccinated received growth monitoring service afterward. The center was in good functioning order. The evaluators checked the growth charts.
2. Segena--Omer and James visited this center on August 4 (Thursday) around 9:15a.m. There were about twenty mothers and children sitting in the rooms and outside the MCH care building. The center was not in good condition. There were three staff working. All the mothers sitting in the room had their child's growth chart with them. The evaluators checked their growth charts. The health center director went along with us. He did not seem to know what was going on at the MCH center which is located at about 80 meters behind the health clinic.

3. Sahafa West--Omer and James visited this center on August August 7 (Sunday) at 10:00a.m. There were only a few mothers sitting outside the clinic. The MCH center was closed because of the flood. We inspected the rooms for MCH services and the storeroom. The records were not kept properly.

Omdurman

1. Daw Hajoj--James visited the center on August 10 (Wednesday) at 11:15a.m. One of the center's doctors who is the director of the health center explained to the evaluator the system of the center. Because of the late visit all mothers had received their services and left. According to the records there were sixty seven mothers who came that morning. The MCH center is in good order. The staff made up-to-date service records. The doctor seemed to have more involvement in the MCH programs in this center.
2. El Higerá Wad Nubawi Shimal--James visited the center on August 10 (Wednesday) at 11:45a.m. Again because of the late visit the MCH center was closed. The evaluator, accompanied by one of the center's doctors, inspected the rooms. There was no MCH staff around and the room had no posters for health education. The rooms seemed not to be in good functioning order.
3. El Higerá Abd El Monieum--James visited the center on August 10 (Wednesday) at 12:15 noon. Accompanied by the center's dentist, we visited the room for prenatal care and the room for other MCH services. There was still a mother having her child vaccinated by one of the staff. The rooms were not well kept. The educational posters on the wall were torn.

3. Findings

1. The attendance was good in Samir even after the food supplement program stopped because of the strong prenatal care and immunization programs there.
2. The recording system in most of the centers is time consuming and poorly kept.
3. The general up-keep of most of the centers is poor.
4. The growth charts are not properly marked for growth monitoring but are well written for the immunization record.
5. The coordination between the health center curative service and the MCH preventive services seem to be lacking.

6. There is indication that supervision to the centers from the higher level has not been going on for quite some time.

4. Conclusions

The field visitation plan has been greatly hampered by the bad flood condition in all three regions. The hasty and late visits made on August 10 was because of the flood situation. Therefore, the findings may not represent a true picture of the health centers, especially in the actual provision of the services.

The general feeling is that the prenatal care and immunization programs are good in most of the centers.

Record management, general up-keep of the centers, and closer supervision are some of the areas of need as seen from this restricted field visit and direct observation. "

5. Recommendations

1. Immediate plans should be made for regular supervision of the health centers by the NCC officers.
2. A simplified time-saving recording system should be prepared by the NCC head office. ADRA/Sudan should provide technical assistance in this respect.
3. NCC should seek future funding specially set up for the general up-keep of the centers.
4. NCC head office should take into consideration the possibilities of redesigning the locations of the health center curative and preventive services in order to facilitate the flow of services and referral system of the health centers, because some MCH services seem to be either too far from the clinic or at the back yard of the health center.
5. A workshop could be arranged for the medical officers to meet with all the MCH staff to learn to work as a team. Many doctors of the health centers seem not to be involved enough.

Appendix G: Report on Key Informant Interview

1. Interview Guides

Purposes of the key informant interviews are to make courtesy calls and to assess how the PL 480 Title II MCH program has been able to meet its fourth objective which is to improve the NCC/Nutrition Division's supervisory and training capability in the GOBI areas of operation.

Some of the guidelines for the interviews are:

- a. What training programs have been done in the past?
- b. Which training program was the most successful? Why?
- c. What training programs are planned for the future?
- d. What kind of supervision have ADRA and NCC given to the MCH centers?
- e. Has the supervision given been successful? Why?
- f. What needs to be strengthened as far as supervision is concerned?
- g. As the PL 480 Title II Food Supplement Program has come to an end, do you think the program has actually helped strengthen the MCH program?
- h. Do you think the PL 480 Food Supplement Program should be continued in the future?

2. The names of key informants and the rationale for choosing them

The evaluation team made plans to make courtesy calls and interview the following key informants:

Ministry of Health--Dr. Zohar Ali Ah
Ms. Alawia El Amin
National Capital Commission (NCC)--Mr. Mamoun A Sherfi
Dr. Shaad Serro
Dr. Omer Dafallah
Ms. Fatiah
Ms. Beatrice
Ms. Awadia Alhuch

USAID/S--Mr. Koehoring
Mr. Streong
Mr. Cellahan
Dr. Ali Albili

These names were chosen because they represent the main stakeholders of the project and these people either play key

decision making roles or they are actively involved in the program.

The courtesy calls and interviews were not made according to the plan because of the flood. We were told that the offices of NCC and USAID/Sudan were all flooded and they had to close their offices. However, the following few calls and interviews were made in spite of the bad situation.

3. Summary of courtesy calls and interviews:

August 2, 1988 at 1:00p.m. at the NCC Administration and Training Center, James interviewed Mrs. Beatris at her office. Mrs. Beatris is the nutrition officer of the NCC MCH program. She is one of the two Assistant Directors to the Director of Nutrition Education of the MCH program. There are eight nutrition officers with college degrees in the program. Each officer is responsible for three MCH centers. They visit and train the nutrition educators at the center. They report their work to the Director. Mrs. Beatris's present responsibility is to supervise these officers. Mrs. Beatris appreciated the technical support ADRA has given to the program. She said ADRA has helped to organize training seminars and workshops for the MCH center staff. She mentioned that ADRA and NCC have worked together to prepare the first educational flip charts to be used for health and nutrition education in the centers. She strongly agreed that ADRA has played a very important role in training and supervision of the MCH program and wished that its role could be extended since ADRA has already phased over the responsibility to NCC.

August 4, 1988, at 12:00 noon at the NCC Administration and Training Center, James interviewed Mrs. Fatiah, the Director of Nutrition Education. Her main responsibility is to organize training programs for the MCH integrated program. Mrs. Fatiah worked with ADRA and the Medical Director of Khartoum last November in a workshop for the integrated MCH program. She also played an active part in working with ADRA to prepare the Flip Chart. Based upon the national SERISS baseline survey reports, they are making a master plan for all regions in Khartoum Province to strengthen their services in growth monitoring, treatment for malnourished children, nutrition education, food preparation demonstration, long term community improvement, and Vitamin A deficiency supplemental programs. However, no exact dates or schedule of implementation of these programs are available.

August 10, 1988, at 12:45p.m., at the office of Ministry of Health, Omer and James made a courtesy call with Dr. Shaad Serro who is the Commissioner of Health. The visit was short because Dr. Shaad Serro was ready to begin a meeting. He mentioned two times about the immediate relief needs of Sudan because of the flood disaster and hoped that ADRA would do something. He did not touch on the topic of MCH

program.

August 11, 1988, at 1:00p.m., at the office of the National Capital of Khartoum, Harvey Heidinger, Glenn and Susan Mitchell, Omer Dafallah, and James Wu made a courtesy call with the Commissioner of Engineering and Health Affairs, Mr. Mamoun A Sherfi. He expressed his appreciation of the good work that ADRA has been doing in the country. He mentioned about the woman development program, the food supplemental program, and he wanted to put the name of ADRA on some of the MCH centers to show ADRA contributions to the program. He particularly emphasized the continuation of the food supplemental program and wished that the service could be extended to all the health service infrastructures in the National Capital Commission of Khartoum. Mr. Mamoun A Sherfi then spent a good portion of our visit discussing ADRA involvement in the immediate relief program for the disastrous flood. Dr. Shaad Serro was present during our visit too. The visit ended with Glenn promising to help the Commissioner to solve the logistic needs for the medical supplies to the affected areas.

V. The Evaluation Team

Harvey Heidinger (Leader)
James Wu
Edwin Dysinger
Glenn Mitchell
Omer Dafallah

VI. References

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