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**ASSABA, MAURITANIA CHILD SURVIVAL
AND VITAMIN A PROJECT
DETAILED IMPLEMENTATION PLAN
1 October 1989 - 30 September 1992**

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GLOSSARY OF TERMS AND ABBREVIATIONS

BCG	Bacille Calmette-Guerin
CHC	Community Health Committee
CHF	Community Health Facilitator
CHW/ASC	Community Health Worker/Agents de Sante Communautaire
CSP	Child Survival Project
Chef de Poste	Post chief, a nurse or hygienist who is the MOH functionary in charge of the Poste de Sante of a communaute rurale.
DHPS	Direction de l'Hygiene et de la Protection Sanitaire (Hygiene and Preventive Health Office)
DIP	Detailed Implementation Plan
DTP	Diphtheria, Tetanus, Pertussis
Department	A political subdivision of Mauritania made up of arrondissements
EOP	End-of-Project
EPI/PEV	Expanded Program on Immunization/Programe Elargi de Vaccination
FY	Fiscal Year
GOM	Government of Mauritania
HIS	Health Information System
HKI	Helen Keller International
IMR	Infant Mortality Rate
IU	International Units
KAP	Knowledge, Attitude, Practice
LWF	Lutheran World Federation
MOH	Ministry of Health
Medecin-Chef	Chief doctor, a MOH functionary responsible for a region or a department
NGO	Non-Governmental Organization
OPV	Oral Polio Vaccine
ORT/ORS	Oral Rehydration Therapy/Oral Rehydration Salts
PEM	Protein Energy Malnutrition
PHC	Primary Health Care
Poste de Sante	Health post, health structure at the communaute rurale level
Region	The largest political subdivision of Mauritania made up of departments
SMI	Sante Maternelle et Infantile (Mother and Child Health), also known as PMI (Protection Maternelle et Infantile)
SSS	Sucre-sel solution (sugar-salt solution)
TBA	Traditional birth attendant/matrone
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAC	Vitamin A Capsule
VHC	Village Health Committee
WV	World Vision
WVI	World Vision International
WVRD	World Vision Relief & Development, Inc.

SECTION A **FORMAT E: COUNTRY PROJECT SUMMARY TABLE**

Organization: World Vision Mauritania

Country: MAURITANIA

Project Title: Assaba Child Survival/Vitamin A Project

A. INTERVENTIONS AND TARGET POPULATION

Intervention	Target Population				Women 15-45 Years	Total Target Population ¹	Total Population In Service Area ²
	0-11 Months	12-23 Months	24-60 Months	0-72 Months Vitamin A Only			
ORT	6772	5918	14393			33,855	169,278
Immunization	6772	5918	14393		38934	72,789	169,278
Nutrition	6772	5918				33,855	169,278
Vitamin A				38855		63,479	169,278
High Risk Births							
Other <u>Social Marketing</u>							169,278
Other <u>Gardening</u>							169,278

¹Identify those to receive direct services (i.e., women and children)

²Include those not receiving direct services

Specify Data Source (circle one):

DC PVO Data Collection System; BG Best Guess; DK Don't Know; **OTHER** (specify) MOH Estimates

a'

FORMAT E: COUNTRY PROJECT SUMMARY TABLE (con't)

B. ACTIVITIES: Circle all activity codes that apply for each intervention

1. ORT

- 1 = Distribute ORS packets
- 2 = ORT training
- 3 = Promote ORT home-mix
- 4 = Promote ORT home-base fluids
- 5 = Dietary management of diarrhea
- 6 = Hygiene education
- 35 = Other _____
(Specify)

6. Other

Specify

- Social Marketing
- Social Mobilization
- Training and Supervision
- of Community Health
- Workers

2. Immunization

- 7 = Distribute vaccines
- 8 = Immunize mother/children
- 9 = Promote immunization
- 10 = Training in immunization
- 35 = Other Supervision of Fixed
(Specify) Sites and Mobile
Teams

3. Nutrition

- 11 = distribute or provide food
- 12 = distribute or provide Iron & Folic Acid
- 13 = Distribute or provide scales & growth charts
- 14 = counsel mother on breastfeeding and weaning practices
- 15 = Promote growth monitoring
- 16 = training in breastfeeding & weaning practices
- 17 = training in growth monitoring
- 35 = Other _____
(Specify)

4. Vitamin A

- 18 = Vitamin A nutritional education
- 19 = Vitamin A food production
- 20 = Vitamin A supplementation
- 21 = Vitamin A deficiency treatment
- 22 = Vitamin A fortification
- 35 = Other _____
(Specify)

5. High Risk Births

- 23 = Distribute contraceptives
- 24 = Sponsor training sessions on high-risk births
- 25 = Promote breastfeeding to delay conception
- 26 = Promote child spacing or family planning or space births
- 35 = Other _____
(Specify)

FORMAT E: COUNTRY PROJECT SUMMARY TABLE (con't)

C. PROJECT DURATION

1. Start Date 10 01 90
MM DD YY

2. Estimated Completion Date 09 30 92
MM DD YY

D. BUDGET

I. By Year (in thousands of dollars - \$000)	A.I.D. Contribution	PVO Contribution	Other Funds	Total
Year 1	131,240	359,520	-0-	490,760
Year 2	120,800	357,320	-0-	478,120
Year 3	127,960	346,120	-0-	474,080
Year 4				
Year 5				
Subtotal - Field Costs	380,000	1,062,960	-0-	1,442,960
Subtotal - HQ/HO Costs	30,000		-0-	30,000
TOTAL	410,000	1,062,960	-0-	1,472,960

II. Percent of Total A.I.D. Funds by Intervention

1. ORT.....	24	%
2. Immunization.....	24	%
3. Nutrition.....	24	%
• Breastfeeding.....	10	%
• Other.....	14	%
4. Vitamin A.....	28	%
5. High Risk Births....		%
6. Other		%
(Specify)		

C

SECTION B. BACKGROUND

B.1 Project Location and Population

The Assaba region is located in the Islamic Republic of Mauritania, a Sahelian country in Francophone West Africa. The region is in southcentral Mauritania, and its capital is Kiffa commune, 600 km. east of Nouakchott, the national capital. The Assaba region has five departments, namely Boumdeid, Kiffa, Kankossa, Guerou, and B.akeol. The region has an estimated population of 169,278 (MOH-DHPS estimate). Out of this total population, 20% are children 0-4 years old, while 23% are women of childbearing age.

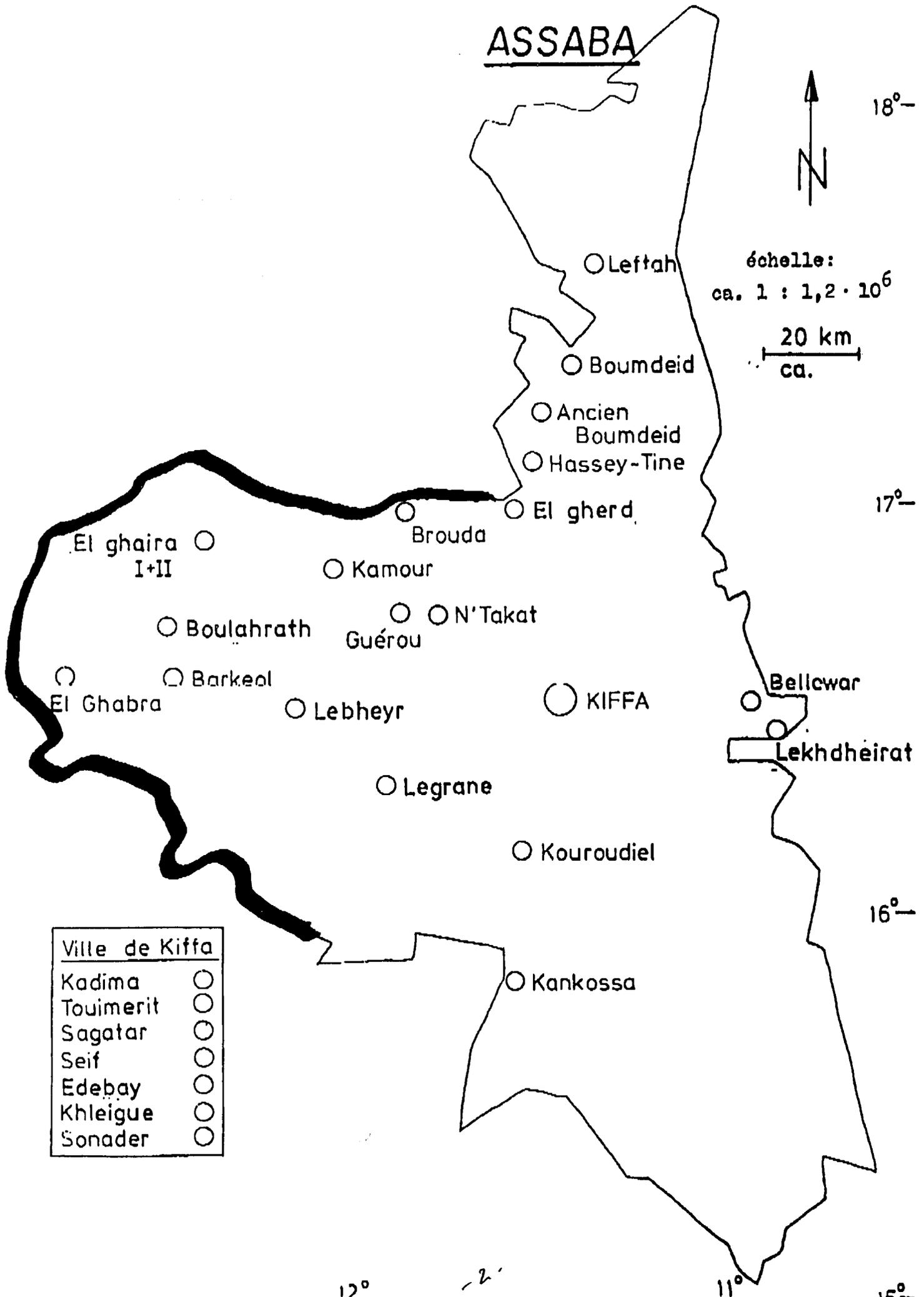
The major causes of death and illness among infants and children in the project area are: (1) Diarrhea; (2) Malnutrition; (3) Malaria; (4) Respiratory infections; and (5) Parasites, including Bilharzia, Dracunculus, and intestinal parasites. Indications that Vitamin A deficiency is a significant problem are very high malnutrition rates (up to 47% of second- and third-degree malnutrition, using weight for age, in some surveys), frequent complaints of night blindness, occasional cases of xerophthalmia, and blindness.

Contributing factors to the high mortality and morbidity rates include lack of water, poor sanitation, a poor health infrastructure, lack of qualified personnel, chronic food deficits, recent history of recurrent natural disasters, and general poverty. Cultural factors such as very low literacy rates, nomadism, and ethnic diversity have an impact on the delivery of health services and spread of information.

B.2 Status of Collaborative Agreements

WV Mauritania has signed four different protocol agreements with the Mauritania MOH: June 19, 1984, April 15, 1985, December 11, 1985, and December 22, 1986.

The Program Director is currently in negotiation with the MOH Service of Coordination planning and training to expand the scope of a new three-year agreement to include all intervention components. This will be a technical agreement specific to the Assaba Child Survival project. Signature by the Minister of Health and WV Mauritania is anticipated by April 15, 1990. World Vision Mauritania is also negotiating a new general convention of cooperation with the Government of Mauritania (GOM) to cover all dimensions of its development and relief assistance. Signing and approval of this new agreement is planned for sometime in June 1990. Agreements with other organizations are described in detail under Section H, Sustainability Strategy.



SECTION C. PROJECT DESIGN

C.1 Objectives, Inputs, Outputs, and Benchmarks

The objectives of this project have been modified in response to the recommendations of the evaluation team (Appendix A) and as agreed upon with the MOH. The end-of-project (September 1992) objectives with corresponding benchmarks are as follows:

	FY90	FY91	FY92
a. Fifty-five MOH personnel will be trained in Child Survival/Vitamin A interventions, training, and supervision.	11	44	55 retrained
b. Ninety Community Health Committees (CHCs), 90 Community Health Workers (CHWs), and 90 TBAs will be trained in collaboration with the MOH.	15 CHCs 15 CHWs 15 TBAs	30 CHCs 30 CHWs 14 TBAs	45 CHCs 45 CHWs 15 TBAs
c. Fifty percent of children 12-23 months will be fully immunized before their first birthday with BCG, DPT3, OPV3, measles, and yellow fever vaccine.	35%	50%	75%
d. Seventy percent of women 15-45 years will have received two doses of tetanus toxoid by September 1992.	45%	55%	70%
e. Sixty percent of infants (0-11 months) in the 90 PHC villages are appropriately fed (breast-fed, no complementary foods if 0-2 months, receiving complementary foods if 6-11 months).	35%	50%	60%
f. Fifty percent of children (0-4 years) with diarrhea are treated with ORT (SSS/ORS).	25%	35%	50%

g. Forty percent of children 6 months-59 months will have received two doses of high-dose VAC each year.	30%	35%	40%
h. Thirty-five percent of children 5 to 9 years of age will have received two doses of high-dose VAC each year.	25%	30%	35%
i. Seventy percent of mothers who deliver in medical facilities will have received a single dose of VAC within one month of delivery.	30%	60%	70%
j. Twenty-five percent of mothers who deliver at home will have received a single dose of VAC within 1 month of delivery.	15%	20%	25%
k. Ninety garden cooperatives would have been trained in vegetable-drying and cooking through demonstration sessions.	18	36	36

INPUTS	Year 1	Year 2	Year 3
a. Technical staff			
- Ministry of Health	5	3 more	8 (in all)
- World Vision	6	(same) 6	(same) 6
b. Support staff	7	(same) 7	(same) 7
c. No. of vehicles			
- jeep	1	1	
- motorbikes		3	
d. No. of technical equipment			
- refrigerator and vacc. carriers		1 ref 4 vc	6 vc
e. Vaccine Doses	58,741	80,065	106,560
f. No. of Vitamin A capsules	16,015	19,904	23,664
g. No. of garden tool sets	18	36	36
h. No. of training modules	8	4	2
i. Project Expenditure (\$)			
USAID	141,240	130,800	137,960
World Vision	359,520	357,320	346,120

OUTPUTS	FY90	FY91	FY92
a. % of target families registered	30%	70%	registry update
b. No. immunized			
<u>Infants (0-11 months)</u>			
BCG	4,063	4,863	5,702
DPT3	2,370	3,821	5,346
OPV3	2,370	3,821	5,346
Measles	2,709	4,168	5,702
Yellow Fever	2,709	4,168	5,702
Fully immunized	2,032	3,474	4,990
<u>Women 15-49 years</u>			
TT2	17,520	21,970	28,689
c. No. of households trained in ORT usage and appropriate feeding	8,464	12,158	17,820
d. No. given VAC 2X/yr.			
0.5 to 4 yrs.	9,141	10,942	12,830
5 to 9 yrs.	5,501	6,773	8,107
e. No. of mothers given VAC within a month of deliv.			
Health Facility	458	939	1,123
TBA/CHW	915	1,250	1,604
f. No. trained			
MOH staff	11	44	55 (retr.)
CHC	15	30	45
CHW and TBAs	30	60	90
Schoolteachers	10	5	15 (retr.)
Village Cooperatives	18	36	36
g. No. of sound slide tapes produced	1	1	
h. No. of learning materials produced (for mothers and older children)	1	1	

C.2 Size of the Priority Population

The estimated population of the Assaba is 169,278 in 1990, 173,680 in 1991, and 178,195 in 1992.¹ The target population by year is presented in the following chart.

ASSABA TARGET POPULATION/BY YEAR

Year	Annual No.					
	of live births (expected)	Infants 0-11 months	Children 12-23 months	Children 12-59 months	Children 5-9 years*	Women 15-49
1990	7,618	6,772	5,918	27,083	22,006	38,934
1991	7,816	6,947	6,071	27,789	22,578	39,946
1992	8,019	7,128	6,229	28,511	23,165	40,984

* Vitamin A capsule coverage

C.3 Enrollment and Strategies for Priority Groups

The enrollment of priority groups will be done on a phased basis starting with 15 villages in FY90 using the following strategies.

- a. Training of Community Health Workers (CHWs) and TBAs on registration of priority groups, identification and follow-up of high-risk groups.
- b. Mobilization of Community Health Committees, including conducting short sessions with them on the importance of the registration, the identification and follow-up of high-risk groups, and the CHCs' role in ensuring the completeness of the registration. When feasible, announcements of the activity will be held during religious services in the mosques. The project will also try to incorporate spot announcements over the radio, requesting schoolteachers to inform the schoolchildren of this activity.
- c. Supervision of CHWs/TBAs by WV/MOH staff during the registration. Immunization and Vitamin A cards will be checked. During the course of the registration, high-risk groups will be identified and listed.

¹ Based on MOH-DHPS Department estimates and the following demographic indicators: 1) Annual population growth rate of 2.6%; 2) Infant mortality rate of 126/1000; 3) Live Births per year, 4.5%; 4) Children 0-11 months, 4%; 5) Children less than 5, 20%; 6) Children 6-9 years, 13%; 7) Women 15-49 years, 23%.

We shall pay attention to the following "high-risk" groups by doing the activities indicated below:

<u>Group</u>	<u>Method of Identification</u>	<u>Special Strategies</u>
Children with Marasmus, Kwashiorkor or mixed PEM	<ul style="list-style-type: none"> - Day Care Centers - Vaccination program - Family registration and CHWs' home visits 	<ul style="list-style-type: none"> - Enrollment in CREN in Kiffa - Home-based rehabilitation of affected child - Emphasis on growth monitoring
Children weaned precipitously	<ul style="list-style-type: none"> - Day Care Centers - Vaccination programs - Fixed centers - Family registration and CHWs' visits 	<ul style="list-style-type: none"> - Mothers' classes - Breast-feeding education in all fixed centers
Nomadic children	<ul style="list-style-type: none"> - Mobile vaccination team visits to congregation sites 	<ul style="list-style-type: none"> - Well publicized periodic visits to temporary settlements
Children with measles and diarrhea	<ul style="list-style-type: none"> - Mobile vaccination teams - Fixed centers - Family registration and CHWs' home visits 	<ul style="list-style-type: none"> - ORT to be used - Emphasis is on vaccination program

In addition, a tracking slip specifying risk category will be issued to the mother or the child caretaker. The identified individual will be visited once a week by the CHC and at least once every two weeks by the project supervisor until the individual is taken off the high-risk group list. The tracking slip is then returned to the CHC for record keeping. Visits will then be conducted monthly by the CHC.

C.4 Major Child Survival Interventions

a. Immunizations

1. This component covers training, supervision, and logistical assistance to the MOH in immunization service delivery to children and women, social mobilization and promotion of immunizations, and enhanced management of EPI. Immunizations to be given are BCG, DTP, OPV, Measles, and Yellow Fever vaccines. Immunizations will be conducted all year round in fixed facilities and during campaigns by mobile teams.
2. In January 1990, World Vision-MOH Assaba coverage survey among infants 0-11 months showed the following antigen-specific coverage rates: BCG - 54.1%; DPT1/polio 1 - 53.1%; DPT3/polio3 - 16.4%; measles - 28%; yellow fever - 28%. Thirteen percent of children were completely vaccinated before their first birthday. TT2 coverage for women was 17% (Appendix 2).

3. The amount of vaccine required for each visit or session will vary according to the number of eligible infants and women in each targeted village and the coefficient of wastage for specific vaccines using WHO recommendations. The computation is as follows (example for DTP where coefficient of wastage is 0.25):

Total number of DTP doses = number of eligibles + (number of eligibles x 0.25)

The data recording system during immunization activities includes the initial registration of eligibles and subsequent updating of registry before each session. The CHW will record each child's/woman's immunization date on the immunization card and in the master register. The number of persons immunized will be tallied after each session. The eligibles who did not come for immunization will be visited by the CHW and will make use of the "high-risk" group tracking system. If a child's card is lost, the mother will be issued a new card with the child's immunization status obtained from the master register.

4. The information needed to determine coverage and to monitor activities includes the total number of eligibles and the number immunized/not immunized by type of vaccine. Immunization coverage will be assessed quarterly by the EPI supervisor from the master register, which will record the month and year of each child's birth. A yearly immunization plotting chart will be used to monitor immunization progress (Appendix 3). The supervisor will conduct spot checks of the family registration and the vaccination card to verify appropriateness of vaccines by age and dose interval. Periodic sample surveys, using the WHO stratified cluster sampling method, will be used to assess region-wide immunization coverage.
5. Weak links in the cold chain, as identified by the Assaba EPI director, include irregular provision of fuel and lack of equipment. The capital town does not have 24-hour electricity. In the other departments, no electricity is available at all. The project will purchase one refrigerator for the fixed site. The other refrigerator will continue to be used by the mobile team. A 12-KV generator will be purchased as a back-up source of power whenever there is power failure in the town. A checklist to ensure cold chain compliance will be formulated with MOH, and an MOH staff person will be designated to monitor vaccine temperature morning and evening each day using a temperature chart (Appendix 4). Every freezer, refrigerator, and vaccine carrier will have a cold-chain monitor.
6. A survey of the mother's knowledge, attitude, and practice (KAP) regarding immunization was conducted in March 1989 by the National Expanded Program of Immunizations (EPI). Appendix 5 summarizes the findings.

The strategy to increase immunization demand includes mobilization of traditional and administrative authorities, the community health committees (CHCs) and community health workers (CHWs) at the peripheral level, organization of women's groups meetings, and focus group discussions with MOH staff, face-to-face encounters between health workers and mothers during home visits, and use of audio-visual health educational materials such as a child life-cycle puzzle. Each contact with the mother will be used as an opportunity to remind her of the need for immunization and to reinforce other CS interventions.

7. The project will train 55 MOH staff in supervision and delivery, and 90 CHCs, 90 CHWs, and 90 TBAs in promotion of immunizations. The training curriculum will follow the guidelines set by the MOH's Department of PHC. Topics not covered in the guidelines will be incorporated using selected sections of the EPI Essentials.
8. The project will not have disease surveillance activities. However, this might be considered for FY91.

b. Management of Diarrheal Diseases

1. The baseline survey conducted in January 1990 revealed 38 percent of children less than five years old had diarrhea during the two weeks preceding the survey. Twenty percent of diarrheal episodes were treated with home-mix hydrating solutions. At present, there are no existing estimates on the average number of diarrheal episodes per child per year and the average length of episodes.
2. The treatment strategy for diarrhea is aimed at improved home-based clinical and nutritional management of the child suffering from diarrhea and reinforcing healthy behaviors and practices. This includes immediate fluid replacement with either home-mix solution or ORS after each diarrheal episode, continuation of breast-feeding, and small but frequent feedings of caloric/protein-dense food during the diarrhea episode and gradual increase after the cessation of diarrhea. Ancillary measures will be emphasized, such as personal hygiene, environmental sanitation, and the role of chronic diarrhea and infectious diseases as risk factors for Vitamin A deficiency.
3. Availability of ORS packets in the Assaba is very limited. The project is presently promoting the preparation and utilization of home-mix solutions. As stated in b.2 above, the project will stress continued feeding, breast-feeding, and "catch up" feeding.
4. The objectives and annual targets for the proportion of diarrheal episodes to be treated with ORS/ORT are as follows: (assumptions: diarrheal episode/child/year--6; diarrhea prevalence rate--38 percent).

	FY90	FY91	FY92
No. of under-fives with diarrhea (x 6 episodes)	77,190	79,200	81,258
Diarrheal episodes treated with ORT			
No.	19,298	27,720	40,629
Percent	25%	35%	50%

Indicators to measure the success of efforts to improve the dietary management of diarrhea include: (a) the number and percent of mothers who continue to breast-feed their children who have diarrhea; and (b) the number and percent of mothers who provide adequate feeding after each diarrheal episode. A pictorial checklist, which contrasts hydration state before and after ORT use, will be used to measure the adequacy of ORT fluid administration by looking at the child's state of hydration.

5. A KAP survey of mothers regarding treatment of diarrhea in infants and children has been undertaken in January 1990 and October 1989 (Appendix 6). The number and percent of households who will receive ORT education is as follows:

	FY90	FY91	FY92
Households who will receive ORT education			
Number	8,464	12,158	17,320
Percent	25%	35%	50%

The educational sessions with mothers and child care-givers will emphasize the following health behaviors: (a) Start oral rehydration after the first diarrheal episode, (b) give one tea glass of home-mix solution in small amounts every few minutes after each loose bowel movement, (c) continue breast-feeding after each diarrheal episode, (d) give frequent, small amounts of supplementary food during the diarrheal episode, and increase the amount after the diarrhea, (e) inform the CHW if diarrhea is persistent, if dehydration is severe, or if the stools are bloody. Other important behaviors have been discussed in b.2. Checklists, to be used by health staff, will be developed to measure change in mother's knowledge, attitudes and practice.

6. The project will continue to promote homemade oral rehydration solution/mix. The MOH formula used is:

One half tea glass of granulated sugar + One liter* of water + Two pinches (three fingertips) of salt

*One liter of water is equivalent to 12 Mauritanian tea glasses.

7. The project will train 55 MOH staff and 90 CHCs in the treatment of diarrheal episodes in children. The curriculum content will be based on the MOH's PHC guidelines.
8. The project does not intend to employ workers to assess or treat cases of diarrhea at health centers, as emphasis will be placed on home-based management of diarrhea.

c. Nutritional Improvement

1. The baseline information collected by World Vision (October-November 1989) revealed that 37% of children less than 3 years old suffer from malnutrition (ranging from 47% in Guerou Department to 25% in Kankossa Department). Eleven percent of these malnourished children have third-degree malnutrition. Children whose weight-for-age is less than two standard deviations below the mean are classified as malnourished.
2. Improvement of the nutritional status of Assaba's children is constrained by the following facts: (a) food taboos, lack of knowledge of appropriate weaning foods, and poor infant feeding practices; (b) lack of water; (c) high prevalence of diarrhea; (d) seasonal fluctuations of food availability; (e) prevalence of infectious diseases; (f) greater than 20% nomadism; (g) overall literacy rate lower than 10%, and an even lower rate for women; (h) cyclical natural disasters. The proposed strategies are listed below:

Constraints	Strategies
<ul style="list-style-type: none"> • Food taboos, poor infant feeding practices, lack of knowledge of appropriate weaning foods. 	<ul style="list-style-type: none"> • Conduct an ethnographic study to develop and implement environmentally and culturally appropriate nutrition communication media and messages; continue to introduce appropriate weaning foods to mother and other child care-takers (e.g., older children) during nutrition classes.
<ul style="list-style-type: none"> • Lack of water. 	<ul style="list-style-type: none"> • Continue to seek sources of funds to finance water resource development activities.
<ul style="list-style-type: none"> • High prevalence of diarrhea. 	<ul style="list-style-type: none"> • Teach water disinfection techniques, e.g., using special water containers put under the sun; increase use of ORT through appropriate communication media.
<ul style="list-style-type: none"> • Seasonal fluctuations of food availability. 	<ul style="list-style-type: none"> • Continue to train cooperatives on food preservation techniques; members of the cooperatives will then train community members in their area.

Constraints

- Prevalence of infectious diseases.
- >20% nomadism
- Low literacy rate, especially among women.
- Cyclical natural disasters.

Strategies

- Accelerate immunization activities.
- Synchronize periods of population movement with accelerated mobile team visits and enhance CHWs/TBAs capability to conduct health classes independently.
- Develop health materials and media appropriate to illiterate target groups, e.g., pictures, songs, plays.
- Develop an anticipatory early warning mechanism to diminish the impact of these disasters.

The project will not conduct growth monitoring at the present time following MOH recommendations. It will be difficult to strategize on the treatment and rehabilitation of children with growth failure, much less identify them. However, the project will assist the MOH to promote appropriate weaning and infant feeding practices, develop locally appropriate weaning foods, provide Vitamin A capsules, promote vegetable gardening as a source of Vitamin A, and promote milk consumption. Nutrition education, together with the promotion of ORT and immunizations, will be the main interventions. These interventions will hopefully reduce the risk of children developing Vitamin A deficiency.

3. No objectives or annual targets have yet been set to measure the increase in percent of infants gaining weight. Nevertheless, we will propose to MOH to conduct nutritional surveillance at regular intervals of children less than two years. Children with Kwashiorkor or Marasmus or mixed PEM will be referred to the CREN in Kiffa and followed-up in their homes by the CHWs. Children whose parents do not want to bring them to the CREN will be cared for at home. The CHW and TBA will be provided a nutrition rehabilitation pictorial sheet which describes the procedure in rehabilitating the child. Supplemental foods will be provided and cooking demonstrations will be conducted by the TBA along with the CHW.
4. No growth monitoring is planned at this time. This follows recommendations expressed in early 1990 by MOH officers, and national and external technical project evaluators. However, children found to have Kwashiorkor or Marasmus or mixed PEM will be referred and followed up in the nearest CREN. If the family does not approve of the affected child being put in the CREN, we will develop with MOH a home-based rehabilitation mechanism involving the CHC, CHW, and assigned supervisor.

5. Growth monitoring has not been identified as a priority by the MOH. There are no existing estimates of growth monitoring by MOH.
6. The project will assist the MOH to organize monthly nutrition education sessions in small groups for mothers and older children in their neighborhoods and villages. CHWs (all males) will organize educational sessions with men emphasizing the importance of increased nutritional requirements for pregnant and lactating mothers, adequate feeding of young siblings, adequate rest periods during pregnancy, and the malnutrition-infection cycle. TBAs will be encouraged to promote colostrum feeding and early food supplementation. The project will utilize social marketing strategies and materials already developed by the CS project, such as theater, slide shows, songs, tapes, and flip charts. To promote nutritional improvement, the following health behaviors will be emphasized: a) breast-feeding throughout infancy; b) no bottle feeding; c) exclusive breast-feeding if infant is less than three months of age; d) supplementation with other foods if four months or older; e) feeding and rehydration during/after diarrheal episodes; f) consumption of Vitamin A-rich vegetables and animal sources of Vitamin A; and g) risk factors associated with Vitamin A deficiency.
7. Fifty-five MOH staff, 90 CHCs, 90 CHWs, and 90 TBAs will be trained using appropriate, selected sections of the MOH's Department of PHC's curriculum on food and nutrition.
8. In the Assaba, the estimated prevalence of nightblindness for children less than 10 years old ranges between 0.1% to 1.9%.² Clinical cases of corneal perforation, and of permanent loss of vision due to Vitamin A deficiency, have been detected in the region during January 1990. Twenty-six out of 28 children less than 10 years of age tested positive in the cytological eye impression test.³ Contributing factors to Vitamin A deficiency in the Assaba include a high malnutrition rate, high prevalence of diarrhea, and lack of Vitamin A-rich foods.

Natural sources of Vitamin A in the Assaba are not available in large quantities. Butter and milk comprise the major source of Vitamin A, but their availability is limited. In FY88-89, the Child Survival/Vitamin A Project promoted extensively the production of vegetable gardens as a long-term

² MTE Evaluation of Jan. 1989, Jan. 1990 Health Survey, Assaba. World Vision International, DRASS, Assaba, Mauritania.

³ Personal communication by Dr. Pascal Chassot, ophthalmologist and head of the nutritional blindness department, MOH, during the baseline survey of the Assaba, Jan. 1990.

strategy to supply beta-carotene (Vitamin A). This intervention has proved sustainable in itself due to its income-generating factor, and has been adopted by the villages. Carrots, beets, lettuce, sweet potatoes, spinach, and tomatoes are now available four months/year.

The project will assist the MOH and the Ministry of Education to provide Vitamin A capsule supplements as a short-term intervention to children below 10 years of age, and to lactating mothers during the first month after delivery, as stipulated by the MOH protocol.

Dosage by Age Group

Children 6-11 months:	100,000 I.U./6 months
Children 1-10 years:	200,000 I.U./6 months
Postnatal Women:	200,000 I.U./6 months

9. The project will assist the MOH in achieving the following objectives and targets:

	FY90	FY91	FY92
Number and percent of children 6-59 months who will receive VACs every six months.	30% 9,141	35% 10,942	40% 12,830
Number and percent of children five to nine years old who will receive VACs every six months.	25% 5,501	30% 6,773	35% 8,107
Number and percent of mothers who deliver in health facilities who will receive VACs within one month of delivery.	30% 458	60% 939	70% 1,123
Number and percent of mothers who deliver at home who will receive VACs within one month of delivery.	15% 915	20% 1,250	25% 1,604

⁴ 100,000 I.U. = 1 capsule minus 3 drops. The project uses only capsules of 200,000 I.U.

The following records will be used:

- a. Vaccination card--children less than five years old.
- b. Vitamin A card--children five to nine years old (Appendix 7). This card, developed by the project, has now been adopted nationwide.
- c. Tetanus toxoid cards--mothers.

d. Birth-spacing Component

Birth-spacing is not part of WV Assaba Child Survival Project as of 1990.

e. Other Project Interventions

Primary Health Care in the Assaba Region (Village pharmacies-Cost Recovery-Bamako Initiative).

1. World Vision will assist the MOH to develop a Primary Health Care infrastructure by adopting the Bamako Initiative (BI). It partly involves a cost-recovery mechanism based on village pharmacies to be established in 90 villages in the Assaba by the end of September 1992.
2. It is acknowledged by the MOH and World Vision that the BI will (a) strengthen the MOH health delivery system, (b) increase the sustainability of Child Survival/Vitamin A interventions, and (c) improve the management and health information system efficiency of the MOH.
3. The objectives include assisting the MOH to achieve by September 1992 (a) formation of 90 Community Health Committees; (b) training of 180 Community Health Workers including TBAs; and (c) establishment of a quality supervisory system in the 90 villages.

SECTION D. HUMAN RESOURCES

D.1 Project Staff and Technical Network

Position	Educational Attainment	Work Experience	Terms of Employment
Project Manager	M.D., M.Sc. Postgraduates in family medicine, internal medicine	9 years in clinical and community medicine	Full-time/ expatriate
Assaba Executive Officer	B.Sc. Nutrition Food Science. Diploma in Management of Primary Health Care	6 years' field experience in Africa WV Child Survival Vitamin A Project Assist. Manager	Full-time/ expatriate
Assistant to the Assaba Executive Officer (Assaba Exec. Officer <u>Counterpart</u>)	Public health nurse	10+ years as clinical and community nurse. Mauritania's MOH Supervisor of CHWs in the Assaba	National MOH Seconded
Nutrition Supervisor	M.Sc. in nutrition		Full time/ expatriate
Supervisor EPI/ORT	Public Health Nurse	10+ years of nursing in Mauritania's MOH health system	National MOH Seconded

Community development supervisor	B.Sc. Biology	4 years in community development and nutrition activities	Full time/expatriate
Community health facilitators	Elementary school. On-the-job PHC training	3 years in PHC activities in the Assaba	National MOH Seconded/ Full time
Accountant/Bookkeeper	2 year studies in Business Administration University of Nouakchott	2 years as Child Survival Project Accountant in Mauritania	National Full time
Team Nurses	Registered/assistant nurses	3 years in Mauritania's MOH	National MOH Seconded

The organogram is found in Appendix 8.

The following staff will be responsible for the following functions:

Project Management: Project Manager, Accountant/Bookkeeper

Technical Quality of Health Activities: Assaba Executive Officer, Assistant Executive Officer, Nutrition Supervisor, EPI/ORT Supervisor, Community Development Supervisor, Project Manager.

Health Information System: Team nurses, Supervisors for EPI/ORT and Nutrition, Project Manager, Director of Training and Supervisor.

Technical backstopping will come primarily from the MOH, WVRD, and World Vision International, plus external technical assistance as needed.

Ministry of Health of Mauritania

Dr. Pascal Chassot, ophthalmologist, Director of the Ophthalmology Department, National Hospital, Nouakchott, Mauritania. MOH Director, Dept. of Prevention Against Blindness. Country representative of the NGO Lumiere-Vie-Amour.

Dr. Dah ould Cheikh, Public Health Specialist, Assistant Director of DHPS, and former Regional Director, MSAS, Assaba, Mauritania.

Dr. Sidi Mohammed ould Tayeb, Assaba MOH Regional Director.

Mr. Anne Sada, Professor of Primary Health Care, National School of Public Health, Nouakchott. Advisor to the Minister of Health in PHC, Mauritania.

Mr. Kone Basirou, Director of EPI, MOH, Nouakchott, Mauritania.

These individuals will be called upon at least three times per year for one to two days, and four to five days during evaluations.

World Vision Headquarters

Milton Amayun, M.D., M.P.H., Director, WVRD International Health Program

Fe Garcia, M.D., M.P.H., WVRD Senior Program Officer

Eric Ram, Ph.D., WVI Director of International Health

Headquarters staff are expected to backstop the project two times per year for five to seven days per visit.

External Consultants

Outside technical assistance, in the areas of social marketing, utilization of radio as a tool for social mobilization and health education, and a health information system will be requested. List of possible consultants include: Sally Stansfield, M.D.; Allan Kulakow; Claire Cassidy; and Benedict Tisa. Each of these consultants are expected to provide assistance at least twice during the project life for 10-14 days per visit.

D.2 Staff Development

Development and enhancement of the staff's technical skills is planned in the following ways:

A needs assessment of the core team staff will help determine the selection of the various training courses. The MOH and World Vision will jointly plan and organize the various training and supervision activities.

- a. A ten-day in-service training program covering a review of (1) MOH's Primary Health Care Strategies; (2) MOH's Primary Health Care training program; (3) the Bamako Initiative and Cost-Recovery mechanisms as applied to Mauritania; and (4) Structure and Functions of the MOH in the Assaba.
- b. A two-day training program on (1) Primary Health Care at the District Level; (2) Structure and Functions of the Community Health Committee; and (3) Structure and Functions of the Community Health Worker.
- c. A two-day training program on the Health Information System.
- d. A two-day training program on Monitoring and Evaluation of Primary Health Care.
- e. A two-day training program on (1) Monitoring of Community Participation in PHC; and (2) Monitoring Sustainability in PHC.
- f. A five-day regional workshop on "Costing Analysis" will be attended by the project manager, which will be held in August 1990 in Nairobi, Kenya.
- g. An every-two-months PVO Lessons Learned and Sharing Meeting will be hosted by the project.
- h. Monthly journal club sessions with core team staff (advance reading materials with questions for discussions will be handed out at least one week earlier).
- i. Quarterly review of project goals, management, reporting and monitoring systems, and supervisory and training methodology by the core team, with inputs from training/management consultants.
- j. Six in-service training courses on specific Child Survival/Vitamin A interventions.

D.3 Community Health Workers

Ninety CHWs and 90 TBAs (one CHW and one TBA per village) will undergo training on a staggered basis. The curriculum will follow the guidelines issued by the Department of Primary Health of Care of the MOH, as presently stated in the "Manuel de Formation des Agents de Sante Communautaire," its further amendments, and other relevant materials. The curriculum includes theory and practice of PHC, and is planned to be completed in 142 hours.

The curriculum is divided into 8 modules, namely: Health Education and Information; Water and Environmental Sanitation; Food and Nutrition; Essential Drugs; Maternal and Child Health; Treatment of Common Diseases and Injuries, and Prevention of Local Endemic Diseases (emphasis on diarrhea and ORT); Community Participation; and the Health Information System.

The following incentives are planned to motivate good job performance by the Community Health Workers, and to motivate their continuation with the MOH/PHC project:

- a. Opportunities for promotion.
- b. Small-scale income-generating enterprises will be encouraged (vegetable gardening).
- c. Basic per-diems will be given for food and transport costs incurred in the full-time training of the CHWs.
- d. Training and completion certificates will be given.
- e. Participation in project planning, implementation, and evaluation, to allow internalization of goal ownership and personal fulfillment.
- f. Linkage of the CHW with the Community Health Committee for support and accountability.
- g. High frequency and quality of supervision.

SECTION E. PROJECT HEALTH INFORMATION SYSTEM

E.1 System Design

Project monitoring is vital to any program since it provides a steady flow of information on the progress of the project, and the information generated becomes the basis for replanning and redirecting program plans. To detect strengths, flaws, oversights, and changes, the project must rely on an agile but methodical monitoring process which allows the project's progress to be continually measured. Regular mid-course corrections are expected to help ensure that the project's objectives are met, keeping in mind the community's pace, ability, and willingness to cooperate.

Monitoring will focus on: (a) appropriate distribution system for products and materials (e.g., vaccines, Vitamin A, ORS); (b) internal administration--adherence to work schedule and budget; and (c) interim tracking of the targeted community's levels of knowledge, attitude, and practice. The following monitoring instruments will be used:

- a. Monthly narrative reports containing achievements, decisions made on problems, situations encountered, personnel and training, plan of action for the next month, and project statistics. Please see Appendix 9 regarding monthly statistical report.

- b. Quarterly narrative reports noting significant achievements, project staff, project expenses and current needs.
- c. Quarterly review of performance statistics on immunization, Vitamin A, ORT, nutrition, with project staff, the MOH, CHWs, and CHCs.
- d. Community dialogues among project staff; MOH personnel, Community Health Committees, and community leaders from the beginning of the project. Community self-diagnosis and action taken on major health needs will be part of this dialogue.
- e. Monthly field checks of CHWs' records to assess data consistency, accuracy and completeness using checklists. This will be conducted by the Director of Training and Supervision. Interview and record keeping techniques will also be checked.

Evaluation instruments will include the following:

- a. Before (baseline) and after (impact) surveys, to obtain quantitative data on knowledge, attitude, practice (KAP), local communication patterns, etc.
- b. Bi-annual performance assessment forms (checklists, etc.). An example is given in Appendix 10.
- c. Sample surveys focusing on:
 - 1. Impact of the training programs for CHWs on the community.
 - 2. Attitude of the community towards the CHWs and the CHCs.
 - 3. Qualitative assessment of the CHWs to be conducted with the CHC, MOH, WV staff, and project consultants.
- d. Annual, mid-project and end-of project evaluations (internal and external).
- e. Periodic assessments by in-country consultants and WV advisors (headquarters, regional).

E.2 Resources and Schedule

The health information system to be developed is aimed at providing a continuous utilizable flow of information to and from the community level. The CHWs, CHCs, and other MOH structures will provide most of the data. The monitoring system consists of the following:

Level	Data Source	Data Collected	Method of Coll./Person Responsible
<u>Village</u>	CHWs and TBAs' records; vaccination cards; Vitamin A cards; family registers; high-risk tracking slips	VAC receipt by target group, immunized/unimmunized eligible/defaulters; high-risk groups followed up	Submitted to health posts every month if weather and religious season permits; collected by mobile teams during rainy season and submitted to auxiliary nurses at health posts
<u>Health Posts and Schools</u>	Health facility, schoolteachers' records, and cumulative reports from CHWs and TBAs	Attendance at MCH clinics; VACs and vaccines given by age group	Monthly collected by Auxiliary Nurse; schoolteachers submit VAC receipts every month to regional head teacher
<u>Department</u>	Health Posts' records	Consolidated data from health posts	Monthly collected by Department Supervisors
<u>Regional</u>	Five departments' records	Consolidated departmental report	Monthly collected by Assaba Executive Officer and MOH counterpart

The Assaba Executive Officer discusses these with the Project Manager who forwards it to the home office, the MOH, World Vision Headquarters, and donor agencies. On a quarterly basis, the HQ staff provides feedback to these reports. The field staff in turn will share the information with the peripheral level workers. The local USAID Mission will be furnished quarterly reports, and discussions will be as often as required. A Toshiba laptop computer and printer will be purchased for data compilation and project reporting. Several programs are already being used including WordPerfect and Lotus 1-2-3.

E.3 Staff Training and Supervision

The project will train WV staff, 55 MOH staff, and 90 CHWs to collect and analyze information. Every person submitting reports will be encouraged to include its analysis. Visual boards will be prepared with summary information. At the peripheral level, symbols and visual aids will be used to represent monthly statistics on events and interventions. The training will vary according to the needs of each category of worker as determined by the job descriptions. The Assaba Executive Officer and his MOH counterpart will be encouraged to attend refresher courses in biostatistics and data processing. The Project Manager will supervise the use of data at the different levels. The Assaba Executive Officer and his MOH counterpart, with the assistance of the project manager, will ensure the quality of data reporting. The estimated budget line for a baseline study is about \$10,000. We have always used technical assistance for study design.

E.4 Baseline Information and Data Collection

A baseline survey was conducted in January 1990. Technical assistance was provided by Dr. Sally Stansfield as external consultant, and Drs. Milton Amayun and Fe Garcia from the IHPD-WVRD office, and Mauritanian national consultants. The 1990 Baseline Survey used the cluster-EPI methodology. The findings are summarized in Appendix 2.

In FY88 and FY89, World Vision conducted several other surveys: 1) Sample survey covering ORT knowledge and practice, nutritional status of children, weaning food practices, nutritional practices, and general health knowledge; 2) Sample survey on nutritional survey status of children under three; and 3) Coverage surveys on immunization and VAC distribution, appropriate infant feeding, prevalence of diarrhea and use of ORT in under-fives, prevalence of nightblindness, prevalence of trachoma, vegetable gardening practices, and knowledge regarding Vitamin A-rich vegetables.

E.5 Family Registration

World Vision will assist the MOH to register phase-by-phase at least 80 percent of families in 90 target villages using a Family Registration form (Appendix 11). The schedule is being worked out with the MOH. The CHWs, assisted by CHCs and team nurses, will be responsible for this activity. It is anticipated that family records will be updated once a year.

SECTION F. SCHEDULE OF ACTIVITIES (Please see Format F).

The project has progressed well as seen in the given workplan:

First Year Workplan (FY90)	<u>Quarter</u>			
	1st	2nd	3rd	4th
o preparation for baseline survey	x			
o staff orientation	x			
o provision of logistics to MOH special EPI campaign		x		
o meetings with MOH, WHO, UNICEF, LWF		x		
o health education sessions in five departments	x	x	x	x
o vegetable gardening in six villages	x			
o VAC distribution to target groups	x	x	x	x
o baseline survey		x		
o selection of 15 target villages		x		
o establishment & training of CHCs in 15 villages		x	x	x
o development of garden co-ops			x	x
o meeting with staff from MOH & Ministry of Educatn.		x	x	x
o DIP writing & submission		x		
o in-house staff dev. act.	x	x	x	x
o dev. & pretesting of slide audiotapes on appropriate weaning			x	x
o selection & training of CHWs & TBAs			x	x
o training of MOH staff			x	x
o supervision of fixed facilities & schools			x	x
o Coverage survey (ORT,EPI,VAC receipts)				x
o Writing & submission of annual report				x

The details of these activities are discussed in the Monthly Project Reports. The calendar of activities for the rest of FY91 and FY92 are charted in the attached schedule of activities. The major activities planned for the next two years are as follows:

FY91

- o discussions on the annual eval. rep
- o preparation of FY91 operating plan/budget
- o training/retraining of MOH staff
- o selection of 30 CHCs from 30 villages
- o selection & training of 2nd batch of CHWs & TBAs
- o expansion of CSP activities of 4 interventions
- o retraining of first batch of trainees community workers
- o midterm evaluation
- o submission of second annual report

FY92

- o discussions on the annual rep.
- o discussions of FY92 oper. plan
- o selection of 45 CHCs from 45
- o selection & training of 3rd batch of CHWs & TBAs
- o expansion of activities of 4 interventions
- o retraining of second batch of community workers
- o final evaluation

FORMAT F: COUNTRY SCHEDULES OF ACTIVITIES

COUNTRY: MAURITANIA

ORGANIZATION: World Vision Mauritania

SCHEDULE OF ACTIVITIES BY QUARTER (Check box to specify quarter and year)

	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Personnel In Position – specify e.g.																				
Project manager	X	X	X	X	X	X	X	X	X	X	X	X								
Technical	X	X	X	X	X	X	X	X	X	X	X	X								
Community/village health workers	X	X	X	X	X	X	X	X	X	X	X	X								
Support	X	X	X	X	X	X	X	X	X	X	X	X								
Other																				
2. Detailed Implementation Plan (DIP)																				
Design/planning	X	X																		
Preparation of DIP		X																		
3. Health Information Systems (HIS) – specify e.g.																				
Design/preparation of HIS	X	X	X																	
Consultants/contract to design/assist with HIS		X	X																	
Baseline survey																				
Design/preparation	X																			
Data collection		X																		
Data analysis		X																		
Dissemination and feedback to community and project management		X	X																	
Registration/record System																				
Design/preparation	X	X																		
Ongoing implementation		X	X	X	X	X	X	X	X	X	X	X								
Dissemination & feedback to the community & Project Management	X	X	X	X	X	X	X	X	X	X	X	X								
4. Training – specify e.g.																				
Design and preparation	X	X	X																	
Training of trainers		X	X	X																
Training sessions		X	X	X					X	X	X	X								
5. Procurement Of Supplies																				
		X	X							X										

FORMAT F: COUNTRY SCHEDULES OF ACTIVITIES (con't)

SCHEDULE OF ACTIVITIES BY QUARTER (Check box to specify quarter and year)

	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
6. Services Delivery Initiated																				
AREA 1																				
ORT	X	X	X	X	X	X	X	X	X	X	X	X								
Immunization	X	X	X	X	X	X	X	X	X	X	X	X								
Nutrition																				
Growth Monitoring Promotion																				
Nutrition Education	X	X	X	X	X	X	X	X	X	X	X	X								
Other																				
Vitamin A (specify) VAC DISTRIBUTION	X	X	X	X	X	X	X	X	X	X	X	X								
Vegetable Gardening	X	X			X	X			X	X										
High Risk Births																				
AREA 2																				
ORT																				
Immunization																				
Nutrition																				
Growth Monitoring Promotion																				
Nutrition Education																				
Other																				
Vitamin A (specify)																				
High Risk Births																				
7. Technical Assistance – specify e.g.																				
HQ/IO/Regional office visits				X				X				X								
Local consultants	X	X						X				X								
External technical assistance		X	X					X				X								
8. Progress Reports																				
Annual project reviews				X	X			X	X			X								
Annual reports				X				X				X								
Midterm evaluation								X												
Final Evaluation/report												X	X							

Mauritania Vitamin A /WVRD	A.I.D.	Year 1 WVRD	Total	A.I.D.	Year 2 WVRD	Total	A.I.D.	Year 3 WVRD	Total	A.I.D.	Total WVRD	TOTAL
I. PROCUREMENT												
A. EQUIPMENT												
1. Technical												
a. Land Rover 4WD Vehicle		30,000	30,000		30,000	30,000			0	0	60,000	60,000
b. 12 KVA Generator	3,500	3,500	7,000			0			0	3,500	3,500	7,000
c. Refrigerator and vaccine carriers	3,000	2,000	5,000			0			0	3,000	2,000	5,000
d. Training equipment	1,500	1,500	3,000	2,000		2,000	2,000		2,000	5,500	1,500	7,000
e. (3) Motor Bikes	3,000	3,000	6,000			0			0	3,000	3,000	6,000
2. Office			0			0			0			
a. Typewriter	1,500		1,500			0		2,000	2,000	1,500	2,000	3,500
b. Laptop computer & printer	1,340	1,160	2,500			0			0	1,340	1,160	2,500
c. Other		3,000	3,000		3,000	3,000		3,000	3,000	0	9,000	9,000
SUBTOTAL - EQUIPMENT	13,840	44,160	58,000	2,000	33,000	35,000	2,000	5,000	7,000	17,840	82,160	100,000
B. SUPPLIES			0			0			0			
1. Technical			0			0			0			
a. Needles, syringes, and vaccination supplies		5,000	5,000		6,000	6,000		7,000	7,000	0	18,000	18,000
b. ORT supplies		1,000	1,000		1,000	1,000	1,000	0	1,000	1,000	2,000	3,000
c. Nutrition supplies	3,000		3,000	1,500	3,000	4,500	1,500	1,000	2,500	6,000	4,000	10,000
d. Social marketing supplies		6,000	6,000		6,000	6,000		6,000	6,000	0	18,000	18,000
e. Gardening supplies	5,000	2,000	7,000	2,000	2,000	4,000	2,000	2,000	4,000	9,000	6,000	15,000
f. Vitamin A capsules and pharmaceuticals		14,000	14,000		10,000	10,000		12,000	12,000	0	36,000	36,000
2. Office Supplies	3,000	4,000	7,000	500	4,000	4,500	500	4,000	4,500	4,000	12,000	16,000
SUBTOTAL - SUPPLIES	11,000	32,000	43,000	4,000	32,000	36,000	5,000	32,000	37,000	20,000	96,000	116,000
C. SERVICES (consultants, subcontracts)			0			0			0			
1. Social marketing consultants	2,000	3,000	5,000	3,000	2,000	5,000	3,000	2,000	5,000	8,000	7,000	15,000
2. Printing costs	4,000	2,000	6,000	2,000	2,000	4,000	2,000	2,000	4,000	8,000	6,000	14,000
SUBTOTAL - SERVICES	6,000	5,000	11,000	5,000	4,000	9,000	5,000	4,000	9,000	16,000	13,000	29,000
D. CONSULTANTS			0			0			0			
1. Local	3,000	5,000	8,000	4,000	6,000	10,000	4,000	7,000	11,000	11,000	18,000	29,000
2. External Technical Assistance	5,000	8,000	13,000	10,000	4,000	14,000	10,000	5,000	15,000	25,000	17,000	42,000

Mauritania Vitamin A /WVRD	Year 1			Year 2			Year 3			A.I.D.	Total WVRD	TOTAL
	A.I.D.	WVRD	Total	A.I.D.	WVRD	Total	A.I.D.	WVRD	Total			
3. Health Information Technical Assistance	3,000	2,000	5,000	1,000	2,000	3,000				4,000	4,000	8,000
SUBTOTAL - CONSULTANTS	11,000	15,000	26,000	15,000	12,000	27,000	14,000	12,000	26,000	40,000	39,000	79,000
SUBTOTAL - PROCUREMENT	41,840	96,160	138,000	26,000	81,000	107,000	26,000	53,000	79,000	93,840	230,160	324,000
II. EVALUATION			0			0			0			
1. Consultant/Contract	1,000	5,000	6,000	8,000	2,000	10,000	10,000	5,000	15,000	19,000	12,000	31,000
2. Staff Support	2,000	2,000	4,000	3,000	3,000	6,000	3,000	3,000	6,000	8,000	8,000	16,000
3. Other	1,000	2,000	3,000	0	2,000	2,000	0	1,000	1,000	1,000	5,000	6,000
SUBTOTAL - EVALUATION	4,000	9,000	13,000	11,000	7,000	18,000	13,000	9,000	22,000	28,000	25,000	53,000
III. INDIRECT COSTS (12% of TDC'S excluding Equipment and Supplies)	11,400	30,360	41,760	12,300	31,320	43,620	12,960	33,120	46,080	36,660	94,800	131,460
IV. OTHER PROGRAM COSTS			0			0			0			
A. PERSONNEL			0			0			0			
1. Technical (includes secondments)			0			0			0			
a. Project Manager * 36 person months	3,000	27,000	30,000	5,000	28,000	33,000	6,000	30,000	36,000	14,000	85,000	99,000
b. Assaba Executive Officer * 36 person months	12,000	8,000	20,000	12,000	10,000	22,000	12,000	11,000	23,000	36,000	29,000	65,000
c. EPI/ORT Supervisor * 36 person months	12,000	7,000	19,000	12,000	8,000	20,000	12,000	9,000	21,000	36,000	24,000	60,000
d. Nutrition Supervisor * 36 person months	12,000	7,000	19,000	12,000	8,000	20,000	12,000	9,000	21,000	36,000	24,000	60,000
e. Community Development Supervisor * 36 person months	6,000	10,000	16,000	6,000	10,000	16,000	6,000	10,000	16,000	18,000	30,000	48,000
f. (2) MOH nurses * 72 person months	2,000	5,000	7,000	2,000	6,000	8,000	2,000	7,000	9,000	6,000	18,000	24,000
g. (2) Community Health Facilitators * 72 person months	2,000	4,000	6,000	3,000	4,000	7,000	4,000	4,000	8,000	9,000	12,000	21,000
h. Agriculturist * 18 person months	1,000	1,000	2,000	1,000	1,000	2,000	1,000	1,000	2,000	3,000	3,000	6,000
2. Administrative			0			0			0			
a. Admin/Finance Manager * 36 person months		20,000	20,000		21,000	21,000		22,000	22,000	0	63,000	63,000
b. Logistician/Mechanic *		18,000	18,000		19,000	19,000		20,000	20,000	0	57,000	57,000

Mauritania Vitamin A /WVRD	Year 1			Year 2			Year 3			A.I.D.	Total WVRD	TOTAL
	A.I.D.	WVRD	Total	A.I.D.	WVRD	Total	A.I.D.	WVRD	Total			
36 person months			0			0			0			
c. Accountant *		18,000	18,000		19,000	19,000		20,000	20,000	0	57,000	57,000
36 person months			0			0			0			
d. Bookkeeper *		3,000	3,000		4,000	4,000		5,000	5,000	0	12,000	12,000
36 person months			0			0			0			
e. Secretary		3,000	3,000		4,000	4,000		5,000	5,000	0	12,000	12,000
36 person months			0			0			0			
f. Guards & Cooks *		12,000	12,000		12,000	12,000		12,000	12,000	0	36,000	36,000
SUBTOTAL - PERSONNEL	50,000	143,000	193,000	53,000	154,000	207,000	55,000	165,000	220,000	158,000	462,000	620,000
B. TRAVEL & PER DIEM			0			0			0			
1. Short Term			0			0			0			
a. Tickets/per diem/in country costs (15 trips @ approx. \$2,000/trip/yr.)	9,000	21,000	30,000	9,000	22,000	31,000	10,000	22,000	32,000	28,000	65,000	93,000
2. Long Term			0			0			0			
a. Tickets/per diem/in country costs (living allow. & housing @ approx. \$6,250./expat/yr.)	10,000	40,000	50,000	5,000	40,000	45,000	5,000	40,000	45,000	20,000	120,000	140,000
SUBTOTAL - TRAVEL	19,000	61,000	80,000	14,000	62,000	76,000	15,000	62,000	77,000	48,000	185,000	233,000
C. Other direct costs, spare parts, fuel and maintenance			0			0			0			
	5,000	20,000	25,000	4,500	22,000	26,500	6,000	24,000	30,000	15,500	66,000	81,500
SUBTOTAL - OTHER PROGRAM COSTS	74,000	224,000	298,000	71,500	238,000	309,500	76,000	251,000	327,000	221,500	713,000	934,500
TOTAL PROGRAM COSTS	131,240	359,520	490,760	120,800	357,320	478,120	127,960	346,120	474,080	380,000	1,062,960	1,442,960
TOTAL HEADQUARTERS COSTS (See Separate Budget)	10,000		10,000	10,000		10,000	10,000		10,000	30,000	0	30,000
GRAND TOTAL	141,240	359,520	500,760	130,800	357,320	488,120	137,960	346,120	484,080	410,000	1,062,960	1,472,960

* Staff is already hired

- Notes: 1. Exchange rate used: U.S.\$1 = 75 UM.
 2. An upward adjustment of approx. 5% per fiscal year was factored into recurrent budget categories.

SECTION H. SUSTAINABILITY STRATEGY

H.1 Community Ownership and Support Strategy

Dialogues with villagers will be conducted by the community development supervisor in conjunction with MOH senior staff and the Project Manager. These dialogues will consist of identification of communities' felt needs, formation of CHCs, and selection and support of CHCs. This is aimed at fostering community ownership and maintaining a level of public support for the health activities. The project staff will use the meetings with the PHC Assaba Regional Advisory committee to monitor the level of public support for the project interventions.

H.2 Participating Institutions/Agencies.

Governmental agencies

- a. The Mauritania Ministry of Health has been a good collaborator in the project through various departments such as the Assaba Regional Direction, EPI National and Regional Office, Department of Primary Health Care (formerly PRSSR), Direction of Hygiene and Preventive Health, Department of Ophthalmology, National Hospital, Department of Blindness Control, Department of Health Education (EPS), and Rural Radio Department.
- b. The Assaba's DREF (Ministry of Fundamental Education), will continue as a partner in the distribution of Vitamin A capsules to children 5-9 years with the participation of elementary school teachers.
- c. The Women's Cooperatives Department of Ministry of Women's Improvement and the project have developed a long-range educational plan on Vitamin A vegetable gardening.
- d. The Department of Agriculture seconded an agriculturalist technician for Vitamin A gardening activities.

Non-governmental agencies

- a. There is an existing collaboration with Lutheran World Federation, since the project works in villages where LWF has built wells. These wells help in supporting vegetable gardens which enhance nutrition activities. A verbal agreement calls for co-sponsoring of some of the training activities in the Assaba.
- b. UNICEF provides vaccination equipment to the MOH region and to the project through the MOH. UNICEF in late 1989 has started a pilot program in Kankossa Department to experiment with cost-recovery and training of CHWs. A verbal agreement exists between FLM, UNICEF, World Vision, and MOH to coordinate future training activities.

Bilateral governmental agencies

There has been collaboration with the Peace Corps Volunteers in areas of health education and vegetable gardening. We hope this will continue as planned.

Most of the above agencies have provided feedback in the development of this DIP.

H.3 Institution Building

The project plans to hand over direct service delivery to nationals, and to utilize expatriate personnel in support, training, and supervision roles. This will be done in phases according to MOH needs and priorities.

H.4 Income Generation/Cost-Recovery Schemes

Income generation methods to be explored during the time frame of this project are as follows:

- a. Village pharmacies and cost-recovery mechanisms, following the Bamako Initiative (BI). The BI strategy was adopted by the Mauritanian government and will be fully tested on a small scale in two pilot areas of the country. One of the pilot areas is located in the Department of Kankossa, within the Assaba region. World Vision will assist the MOH and other agencies in developing the BI strategy which is based on a fee-for-service system.
- b. The project has already attempted cost-recovery in the gardening activities by asking gardening communities to co-pay for the cost of the gardening equipment supplied to the village. This co-payment was designed to enable the villages to finance other needs related to the garden.
- c. The gardening activities promoted by the project in the last two years had the purpose of improving Vitamin A deficiency. It was not meant to be an income-generating intervention. The reality is that the villages have immediately seen the economic potential of gardening, and gardening is becoming an income-generating activity, with the added benefit of nutritional and health improvement.

H.5 Recurrent Costs

The following project costs are expected to be recurrent and should be covered in order for effective health activities to continue after the grant period: Salaries, cars and spare parts, maintenance of cars (cold-chain operation: refrigerators and spare parts, maintenance of refrigerators, butane gas); injection equipment: syringes, needles, sterilizer; health information system (vaccination cards, Vitamin A cards, consultation registers, tetanus-toxoid cards, weekly report cards, monthly report cards); fuel; imported educational equipment and materials; continual education seminars for community health workers.

Progress of steps taken to recover some of the recurrent costs can be measured in the following ways: a) Number of CHCs which are able to support their CHW; b) Number of CHCs reimbursing part of the recurrent costs; c) Number of CHCs who repay the seed and money to partially compensate the recurrent costs; d) Any other cost-recovery mechanisms developed and implemented by the communities themselves.

H.6 Resource Generation

World Vision recognizes that there are many constraints to ensure a significant degree of sustainability of health activities. Resource generation methods to be employed center on one issue: how to sustain the community health workers, who are the heart of the program, with some kind of compensation as they seek to faithfully remind mothers about vaccination timings for their children, teach new mothers how to use ORT correctly, how to improve breast-feeding and weaning practices, promote Vitamin A consumption, and treat simple diseases and injuries.

The project plans to do the following actions aimed at sustaining effective health activities:

- a. Assist the MOH to experiment with cost-recovery through community pharmacies supported by community beneficiaries. Other potential resources will be proceeds from women's agricultural cooperatives of the Assaba.
- b. Assist the MOH to train CHCs in single management skills including cost analysis of sustainable CS components, how to monitor progress in CS interventions using pictorial board presentations, and how the village health system is integrated into the bigger MOH health care system.
- c. Encourage local institutions (mainly the Ministry of Health) to develop the capacity to implement and manage Child Survival interventions through the strengthening of its fixed facilities, enhancing community participation, recruiting and training of community health workers.
- d. Strengthen the management skills in local health institutions through a combination of the following:
 - 1) Training of MOH staff seconded to World Vision;
 - 2) Supervision of fixed sites by World Vision mobile teams, which will include at least one MOH staff from the geographic department visited;
 - 3) Providing co-management practice opportunities to MOH personnel in the execution of this project; and
 - 4) Assisting MOH in the region in the development of a permanent management-in-service program.

APPENDIX 1

Recommendations

Based on the lessons learned and the other findings of the evaluation, the following recommendations were made by the evaluation team:

- Conduct a major reassessment of the design of the follow-on project, ensuring that recommendations made during the MTE and emphasized again by the final evaluation team are implemented and reflected in the DIP.
- Use project resources in the follow-on project to strengthen DRASS capacity to conduct the necessary training and supervision in support of sustaining and expanding primary health care according to the first three objectives of the Plan Director (PD). Begin with clarifying job descriptions and relationships among each type of health worker. The project should obtain technical assistance for these purposes to ensure that approaches to training and supervision reflect the "state of the art."
- Strengthen the project's information system to monitor carefully selected input and output measures, with records which will assist in structuring supervisory encounters.
- Avoid use of WV resources to fill gaps for recurrent cost items (such as secretarial support and maintaining the mobile teams) for DRASS, as such a role for WV assistance only interferes with the sustainability of health services in the Assaba by delaying the GOM's recognition and addressing of these needs.
- Begin a phase of transition from distribution of vitamin A using mobile teams to vitamin A distribution using community structures (such as TBAs, schools, health posts) to enhance sustainability of service delivery. Such a strategy will require strengthened supervision of Vitamin A distribution (and other health service) activities.
- Identify an effective mechanism to ensure coordination among agencies contributing elements of PHC in the Assaba.
- Explore and test the effectiveness of new strategies for social mobilization and health communications in support of primary health care, using both traditional and modern social structures and channels of communication.
- Incorporate the use of locally prevalent animal products such as fresh milk to complement vegetable sources of Vitamin A, especially during dry seasons.
- Develop a strategy to address the locally important problem of poor infant feeding practice, especially the failure to introduce complementary foods between 6 and 12 months of age.
- Work with DRASS to explore new strategies for management of malnourished

children, considering village-level interventions in settings where admission to the CREN is unacceptable to the family.

- Enhance project sustainability through improved collaboration with the MOH by: 1) ensuring that WV assists in implementing DRASS objectives; 2) continued documentation of the successes (and improved documentation of cost-effectiveness) of strategies through a strong HIS; 3) developing a timetable for transfer of more control of project activities to Mauritanian nationals; 4) emphasizing a high frequency and quality of supervision; and 5) systematically examining incentives and strategies for motivating health workers.
- Track project performance in enhancing sustainability, selecting from among indicators such as: 1) percent of health workers trained who are retained after two years; 2) level of financial and personnel commitment by DRASS; 3) percent of demonstration gardens sustained following the end of the demonstration period; 4) percent of persons trained in vegetable drying who still use the technique two years following their training; 5) percent of Vitamin A distributed each year through mobile teams and stable community workers or structures; 6) number of fixed sites for immunization and other services; 7) the expatriate to national ratio among project staff; 8) sustained changes in health behaviors such as immunization dropout rate, ORT use, and gardening; and 9) cost per beneficiary.
- Work with GOM to explore potential for WV collaboration in testing models for cost recovery schemes as planned according to the Bamako initiative.
- Develop materials (in French) summarizing the project objectives and activities which may be used to brief visitors and collaborators.
- Balance organizational development and personnel training for World Vision staff with the need to develop Mauritanian staff to enhance project sustainability.

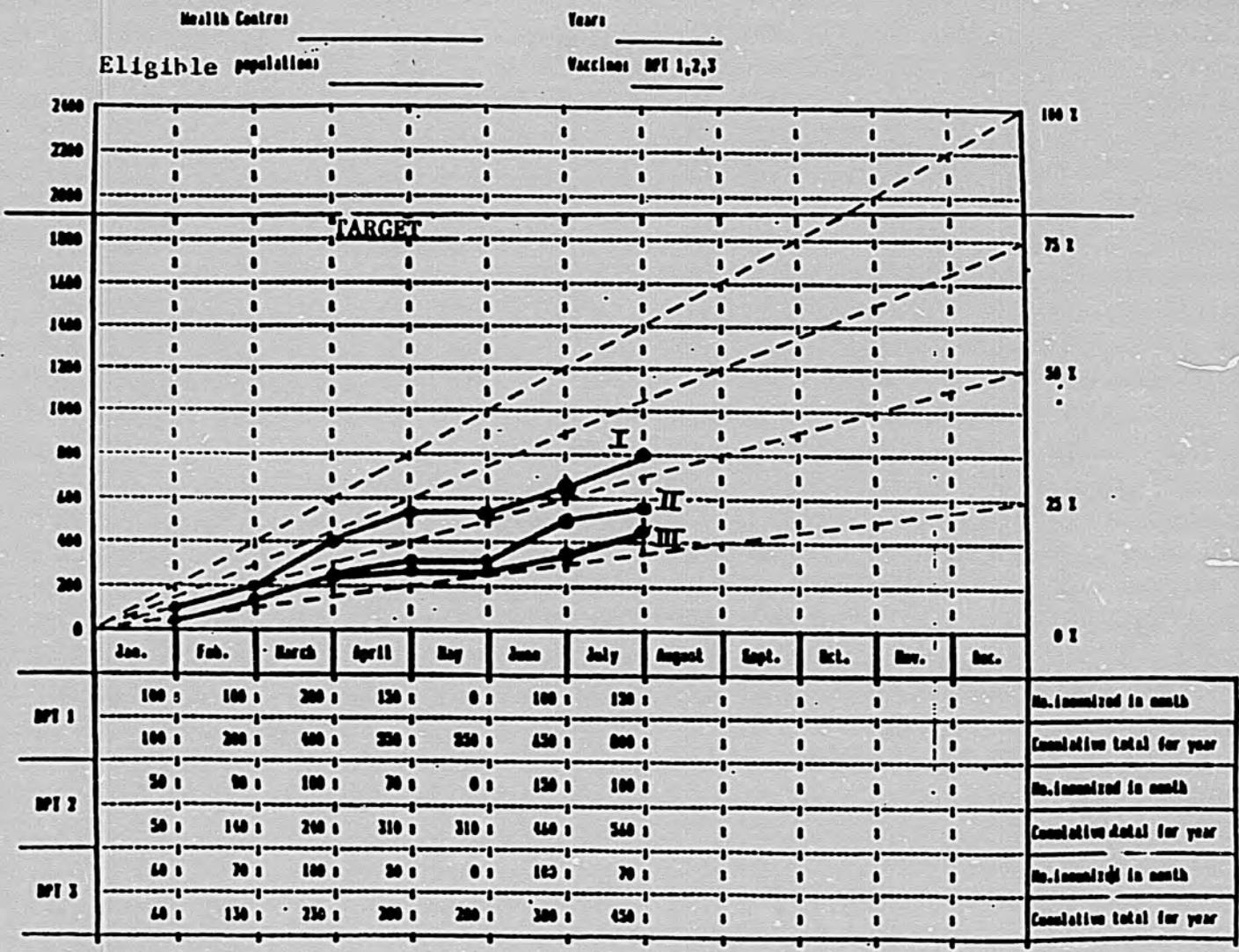
APPENDIX 2
Baseline Survey Results
January 1990

INDICATORS	(%) [n]
Percent of women delivered in the last 12 months with two doses of TT documented prior to delivery.	12.85% [153]
Percent of deliveries in the last 12 months which took place in the home.	79.5% [153]
Percent of women delivered in the past 12 months who have a vaccination card.	55.5% [153]
Percent of women delivered in the past 12 months who received Vitamin A (by history or card).	15.0% [153]
Percent of women delivered at home in the past 12 months who received Vitamin A.	12.3% [122]
Percent of women delivered in health institutions in the past 12 months who received Vitamin A.	22.6% [31]
Percent of children 1-4 years of age who received Vitamin A in the past six months (card documented only).	27.4% [558]
Percent of children 1-4 years of age who have received Vitamin A in the past 12 months.	52.0% [558]
Percent of children 6-9 years of age who received Vitamin A in the past six months.	24.7% [263]
Percent of children 6-9 years of age who have received Vitamin A in the past 12 months.	47.1% [263]
Percent of school children 6-9 years of age who received Vitamin A in the past six months.	23.7% [38]
Percent of girls 6-9 years of age in school.	7.7% [222]
Percent of boys 6-9 years of age in school.	16.8% [137]

Percent of infants (0-11 months) who are appropriately fed (breast-fed, receiving no complementary foods if 0-2 months, and receiving complementary foods if 6-11 months).	70.9% [151]
Percent of infants 6-11 months who receive no complementary foods.	45.5% [77]
Percent of children under five with diarrhea (four or more loose/watery stools per day) in the past two weeks.	37.7% [738]
Percent of children with diarrhea in the past two weeks who were treated with ORT (SSS/ORS).	20.5% [278]
Percent of households unable to name one or more Vitamin A-rich vegetables.	31.0% [504]
Percent of households reporting they never eat Vitamin A-rich vegetables.	31.1% [499]
Percent of households reporting they eat Vitamin A-rich vegetables three or more times a year.	54.3% [499]
Percent of children under five with a vaccination card.	61.1% [373]
Percent of children 12 to 23 months with a vaccination card.	68.4% [209]
Percent of children 12-23 months who received the following immunizations before age 12 months:	[207]
BCG	54.1%
DTP1/polio1	53.1%
DTP2/polio2	25.1%
DTP3/polio3	16.4%
Measles	28.0%
Yellow fever	28.0%
Completed	13.0%

APPENDIX 3

The Immunization "Road to Health" Monitor



38

CONTROLE DE LA CHAINE DE FROID

REGION : _____

CERCLE : _____

ARRONDISSEMENT : _____

NOM DU RESPONSABLE DE L'APPAREIL : _____

Journée	1ère Semaine							2ème Semaine							3ème Semaine							4ème Semaine							5è. Sem.					Observations
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Relevé																																		
Relevé de Température le matin à 8 H.																																		
Relevé de Température l'après-midi à 14 H																																		
La glace est-elle utilisée ?																																		
Arrêt de l'Ap- pareil : Cause, éner- gie (Pétrole)																																		
Panne (Nbre d'heures)																																		
Entretien																																		
Energie: Rem- olis. rés. pétr.																																		
Consom. Semaine																																		
DIVERS																																		

APPENDIX 4

Le, _____

LE RESPONSABLE

16/9

APPENDIX 5

Knowledge, Attitudes and Practice (KAP) of Mauritanian Mothers about Immunizations

The Mauritania EPI National Survey of March 1989 showed, for the Assaba, the following results:

"Almost all of the mothers of children between 12-23 months (94% of 218 surveyed) said they have heard about immunizations through health personnel (51%), through the media (15% through the radio), or through relatives and neighbors (14%)."

Forty-one percent of the mothers believe that immunizations are useful to protect the children against diseases; 17% declared that vaccinations "give health" with no precision, and 16% attribute therapeutic benefits to vaccines. Twenty-six percent of the mothers interviewed ignore its benefits.

To the question "against which diseases does immunizations protect?", measles is the most frequently cited (48%), followed by whooping cough (38%), poliomyelitis (18%), tetanus (17%), yellow fever (11%), tuberculosis (11%), and diphtheria (3%). Overall, 65% of mothers cited at least one of the target diseases of EPI, 49% at least 2, 23% at least 3, whereas 35% could not mention any; on the other hand, 35% mentioned other diseases. Non-immunizable diseases were also mentioned: diarrhea (27%), fever (18%), and cholera (9%).

The vaccination of children should start at birth according to 41% of mothers, during the first month (9%), between the 2nd and 3rd month (2%), between 4 and 11 months (3%), at one year and older (7%); the remaining 38% had no idea how to answer the question.

To the question "how many times should one vaccinate the child?", 59% of mothers answered 3 times, 8% answered 5 times, and 4% responded 4 times; 23% did not give any answer.

The antitetanus vaccine is not well known by the women: 73% do not know why they receive the vaccine, 5% answered that it is to protect their child, 6% said it is to protect the child and the mother, and 3% said it is to protect the woman. Two percent believe this vaccine protects against tetanus.

Fifteen percent of mothers interviewed considered that antitetanus vaccine must be administered between 10-15 years, 6% from 16 years, 13% during pregnancy without mentioning age, and 64% did not respond to this question.

The number of TT dosages to be received is also not well known: 57% of mothers responded "don't know," 24% cited three times; 7% cited 2 times, and 5% cited 1 time.

APPENDIX 6

Knowledge, Attitudes and Practice about ORT of Mauritanian Mothers

ORT knowledge by mothers in the Assaba: 63% of the mothers interviewed know that the sugar/salt solution should be used if their children have diarrhea; only 47% of the mothers actually know how to correctly prepare the solution as demonstrated to World Vision trained interviewers, applying hygienic practices (e.g., washing of hands and utensils with soap), and knowing correct measurements of ingredients.¹

Nearly 83% of mothers in the survey have heard about oral rehydrating solution-ORS/and sugar-salt-solution-SSS; the source of information came from health personnel (76% for ORS and 58% for sugar-salt solution) and radio (29% for ORS and 42% for SSS).

The domiciliary treatment shows an increased utilization of traditional treatments (37%) followed by SSS (20%), modern drugs (11%), and ORS (9%).

Only 44% of mothers have any notion about dehydration, 48% know the effects of ORS, but 60% believe that it will stop the diarrhea.²

Episodes: Episodes of diarrhea per child per year in Mauritania.

In Mauritania, the only such estimate is 9.8 episodes of diarrhea per child per year, in the El-Mina neighborhood of Nouakchott, in 1983; Mauritania has an under-five mortality rate of 225/1000, and 60.8% of these deaths are associated with diarrhea.³ Average length of episodes has not been recorded. The project will do a survey of diarrhea in the Assaba (number of episodes per child per year, and duration of episodes).

For the Assaba, the prevalence of diarrhea (4 or more loose/watery stools per day) during the last 2 weeks for children under 5 is 37.7%, and the utilization rate of oral rehydration solution as treatment of diarrhea is 20.5%.⁴

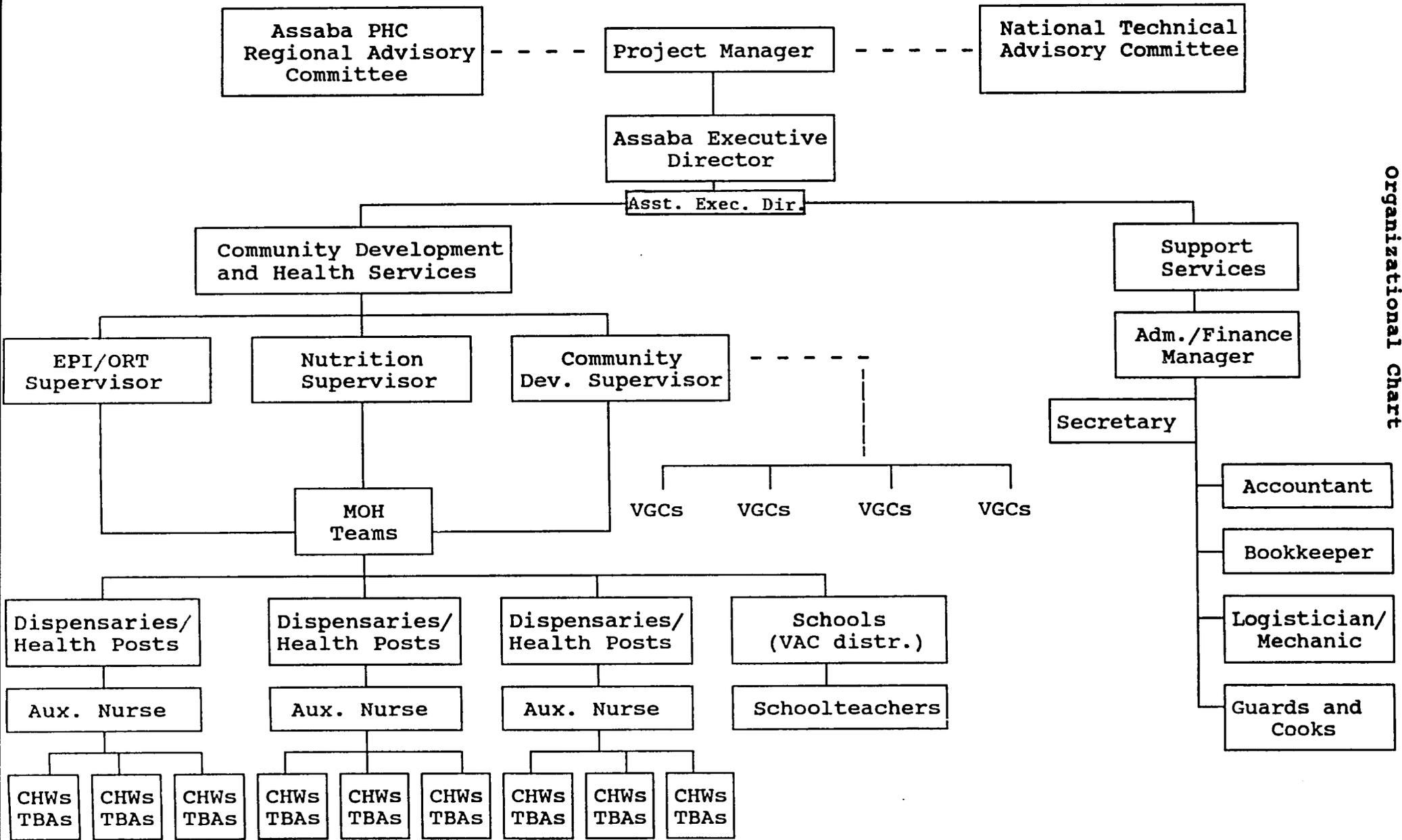
¹ Second Annual Report. Assaba Child Survival/Vitamin A Project, October 31, 1989, World Vision Relief and Development, page 35.

² Connaissances, attitudes et pratiques des mères en matière de thérapie de réhydratation par voie orale et de vaccinations. PNLMD, MSAS, PRITECH, USAID, Nouakchott, Octobre 89.

³ Les Maladies Diarrhéiques dans le Sahel. Données épidémiologiques et premiers résultats des programmes de lutte. PRITECH/Sahel/ ORANA, Dakar, Sénégal, August 1989. Pages 65 and 80.

⁴ Assaba Health Survey, World Vision-Ministry of Health, DRASS-Assaba, January 1990.

ORGANIZATIONAL CHART



APPENDIX 8
Organizational Chart

- CHWs - Community Health Workers
- TBAs - Traditional Birth Attendants
- VGC - Village Garden Committees
- CHC - Community Health Committee

APPENDIX 9
Project Statistics Report

	<u>This Month</u>	<u>Total Year to Date</u>	<u>Target Year to Date</u>	<u>Project Target FY90</u>
INPUTS				
Professional Staff				
- World Vision				
- MOH				
Support Staff				
No. of Vehicles				
- Jeep				
- Motorbikes				
Vaccine Equipment				
- Generator				
- Refrigerator				
- Vaccine Carriers				
Project Expenses (\$):				
World Vision				
USAID				

PROCESS

- Operational Assistance
 - No. of village mtgs. org.
 - No. of training sessions
for each category:
 - MOH/WV
 - CHCs
 - CHWs
 - No. of immunization sessions
 - Fixed Facilities
 - Mobile Team
 - No. of surveys

OUTPUTS

- Target families registered
 - No./percent of Vaccinations
 - BCG
 - DPT3
 - OPV3
 - Measles
 - Yellow Fever
 - No./percent of infants 0-11
months fully immunized
 - No./percent of WCBA immunized
with TT2
 - No./percent of households trained
in ORT usage
 - No./percent given VAC (2X)
 - 6 mos. to 59 mos.
 - 5 yrs. to 9 yrs.
 - No./percent postnatal mothers
given VAC
 - Health Facility
 - TBA/CHW
 - No. of CHCs trained & active
 - No. of CHWs trained & active

24

**APPENDIX 10
Supervisor's Report
Quarterly Visit**

Community Health Worker:
Traditional Birth Att.:
Village:

Date:
Supervisor:

Instruction: There are three (3) parts to this form:

1. A checklist to be recorded by the supervisor with answers to be provided by the Community Health Committee
2. The supervisor's own observation
3. Data obtained from CHCs' and TBAs' records

EXPECTED DUTIES AND RESPONSIBILITIES

Community Health Worker	Yes	No	DK	Trad. Birth Att.	Yes	No	DK
1. Conducts information/ education on: <u>diarrhea</u> <u>immunization</u> <u>breastfeeding</u> <u>approp. weaning</u> <u>hygiene & sanit.</u> Vit. A needs of children				Conducts info/ education on: <u>immunization</u> <u>prenatal care</u> nutrition of <u>preg. & lact.</u> <u>cord care</u> Vit. A need of postnatal mothers			
2. Collects vital CS data				Assists CHW in data collection			

OBSERVATIONS

	Yes	No	Not obs.		Yes	No	Not obs.
1. Keeps & maintains records				Keeps & maintains records			
2. Keeps & maintains VAC supplies				Keeps & maintains VAC supplies			
3. Has good working relationship with CHC & TBA				Has good working relationship with CHC & CHW			
4. Has good rapport community members				Has good rapport community members			

CHILD SURVIVAL/VITAMIN A ACTIVITIES

	No.	Remarks		No.	Remarks
1. Info/educn. sessions: - men			Info/educn. sessions: - women - older children		
2. No. of diarrheal cases attended			No. of newborns referred for immunizn.		
3. No. of high-risk children followed up			No. of high-risk mothers followed up		

PUBLIQUE ISLAMIQUE DE MAURITANIE

"_""_""_""

MINISTRE DE LA SANTE ET DES
FAIRES SOCIALES

"_""_""_""

D.H.P.S

APPENDIX 11
Family Registration Form

UNICEF MAURITANIE

"_""_""_""

PROJET IB/H901

ENQUETE ANNUELLE COMPLEMENTAIRE

HYGIENE - PREVENTION

VILLAGE DE

de mise à disposition

46



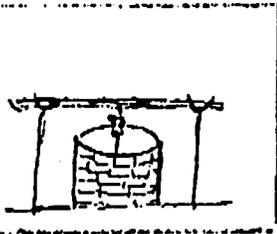
Nombre total de familles

العدد الاجمالي للعائلات

Source d'approvisionnement en eau

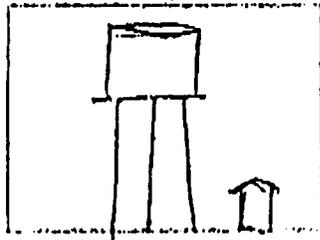
مصدر التوريد بالماء

بئر



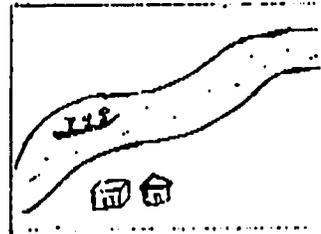
Puits

حنفية



Forage

نهر



Fleuve

مستنقع



Marigot



Nombre de familles traitant l'eau par filtration.

عدد العائلات التي يصعبها الماء



Nombre de familles traitant l'eau par javélation.

عدد العائلات التي يستعمله "جفل" في الماء



NOMBRE D'ENFANTS DE 0 à 5 ANS COMMUNIQUES PAR J.A.S.C. عدد الأطفال 0 إلى 5 سنوات

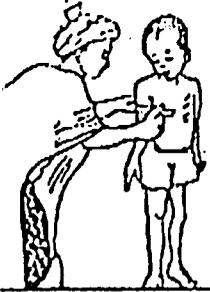
0 à 1 AN

من 0 إلى سنة واحدة

1 à 5 ANS
من سنة إلى 5

0-1

1
1111



Nombre d'enfants dans la zone rouge

عدد الأطفال في المنطقة الحمراء



Nombre d'enfants dans la zone jaune.

عدد الأطفال في المنطقة الصفراء



Nombre d'enfants dans la zone verte

عدد الأطفال في المنطقة الخضراء



enfants complètement vaccinés.

الأطفال الملقحون تمامًا