

BASELINE SURVEY

Child Survival XI

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Chipata and Chadiza Districts Eastern Province

Zambia

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Table of Contents		Page
Acronyms		3
Executive Summary		4
I.	Introduction	5
	A Background Information	5
	B Intervention Area	5
	C Objectives of the Survey	6
	D Schedule of Activities	7
II.	Methodology	8
	A The Questionnaire	8
	B Determination of Sample Size	8
	C Selection of Sample	8
	D Training of Supervisors and Interviewers	9
	E Conducting of the Interviews	9
	F Method of Data Analysis	9
III.	Results and Discussion	10
	A Identification Module	10
	B Mother's Education and Occupation Module	10
	C Breast Feeding/Nutrition Module	11
	D Growth Monitoring Module	12
	E Diarrheal Disease Module	13
	F Immunization Schedule	15
	G Maternal Care Module	17
	H HIV/AIDS Module	19
	I Vegetable Gardening Module	20
IV.	Feedback Sessions/Arrangements	22
V.	Key Child Survival XI Indicators for Zambia	23
VI.	References	26
Appendices		
	Appendix A Survey Results	27
	Appendix B Graphs (Important Findings)	42
	Appendix C Survey Staff	58
	Appendix D Schedule of Activities in Zambia	59
	Appendix E Map of Project Location	60
	Appendix F Nyanja Questionnaire and English Questionnaire	62

Acronyms

ADRA	Adventist Development and Relief Agency
CDD	Control of Diarrheal Disease
CSSP	Child Survival Support Program
CSXI	Child Survival XI
DIP	Detailed Implementation Plan
EPI	Expanded Program of Immunization
BHR/PVC	Bureau of Humanitarian Response/Private & Voluntary Cooperation
IMR	Infant Mortality Rate
JHU	Johns Hopkins University
KPC	Knowledge, Practice and Coverage
MD	Maryland
MHO	Ministry of Health
NGO	Non-Government Organization
ORT	Oral Rehydration Therapy
PVO	Private Volunteer Organization
RHC	Rural Health Center
TOST	Training of Survey Trainers
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
VHP	Village Health Promoter
VHC	Village Health Committee
VHW	Village Health Worker
VV	Village Vaccinator
WCBA	Women of Child Bearing Age
WHO	World Health Organization

Executive Summary

Zambia represents a unique opportunity for implementing and solidifying achievements in Child Survival and protective health behaviors. The receptivity of communities to pro-act with PVOs for health improvements, in Zambia, appears related to the Mother's lack of a basic knowledge of home management of disease. Because of a shortage of resources, the District Health Office is unable to hold refresher training sessions for TBAs and CHWs, both of whom are the main sources of information for the mother. In the past two years, except for the limited training given by the Mwami SDA Hospital in the Chipata District for TBAs and CHWs, and a recent training session in CDD for CHWs in the Chipata District, no training has been undertaken by the MOH in Chipata District, and no training whatsoever was available in Chadiza District. There is a minimal and often nonexistent capacity at the village level to provide home based management of the major causes of maternal and child morbidity/mortality

A CS XI baseline survey was conducted during Dec 5-9, 1995. ADRA headquarters provided a technical advisor Ms Victoria Daaka from ADRA/Ghana. The external technical assistance was used as the mechanism for empowering ADRA/Zambia's Child Survival XI Core Team to train, conduct, analyze and interpret results using the WHO 30 cluster survey methodology. It is expected that this Core Team will continue to conduct quality surveys without external assistance. The Core Team also provided the USAID Mission with a formal presentation of the baseline survey findings. Similar feedback sessions were carried out for Zambia's MOH and the local communities.

Significant baseline survey findings for several key factors are reported here. Breast feeding was found to be 94.7% (284/300) at the time of the survey while exclusive breast feeding was only 4.4% (2/45). The cultural implications for exclusive breast feeding is low because other family members make such decisions and traditionally water and other substances are offered a newborn infant. The desirability for changing this behavior is low as measured against any possible perceived benefit. It is not expected that this indicator will significantly change over a three year period. The point prevalence rate for diarrhea was 40.7% (122/300) but of these 76.9% used ORS and 4.1.% used cereal-based solutions. 50.% stated they continued to breast feed.

When asked "do you want another child in the next three years?" 116 mothers said "No." Forty five mothers stated they were taking action to prevent pregnancy and 88.37% (38/43) were using a modern contraceptive method.

The fully immunized coverage rates for children 12 to 23 months was documented at 77.8% based on cards only. This compares favorably with the national level coverage.

Mother's knowledge levels for HIV/AIDS was found to be not satisfactory. A very small percentage of the women interviewed mentioned abstinence and mutual fidelity between uninfected partners as the surest methods of prevention. Only a little over half of the women mentioned sexual contact as a way of transmitting the HIV/AIDS virus, and less than 10% knew that it can be transmitted from mother to child. This is vital information.

I. Introduction

A. Background Information

The project will be located in the Eastern Province of Zambia, within the Chadiza and Chipata Districts. Project coverage of the Chadiza District will be district-wide (10,430 households), while coverage in the Chipata District will focus on the catchment area of the Mwami Adventist Hospital (6,785 households). The selected areas are overwhelmingly rural in a province that is 85 percent rural.

Current levels of infant, child, and maternal mortality in the Eastern Province of Zambia, and in the targeted areas are high and have been rising for the various age groups over the past 14 years. Reports indicate that infant mortality rates rose to 89/1000 in the mid-1980s and to 108/1000 in the period from 1987-1991. (Zambia Demographic and Health Survey, 1992). UNICEF reports that informed health professionals currently place the IMR between 100 and 120/1000 (*Zambia Country Programme Report*, GRZ/UNICEF, 1990).

Zambia's under-five mortality rate was documented at 202/1000 in 1992 (ZDHS). Nationally, the major causes of morbidity and mortality for children between the ages one to five years are:

- Malnutrition (contributing between 20-30 percent of pediatric admissions, and accounting for 40% of hospital pediatric deaths)
- Diarrheal disease (accounting for 20-25 percent of pediatric admissions), with dysentery and cholera adding to the mortality
- Malaria accounts for 15 percent of pediatric admissions
- Acute respiratory infections 20-25 percent
- AIDS causes significant morbidity in special populations (National Plan of Action)
- Morbidity due to immunizable diseases has declined since the launching of the Universal Child Immunization (UCI) Programme in 1987, though rates of immunization have recently dropped

HIV/AIDS and MCH related health problems represent conditions which can be prevented but require increased resource and effort. The most common cause of maternal mortality is reported as undefined birth complications which are very likely related to all aspects of pregnancy and delivery in rural Zambia.

Maternal mortality, based on hospital data, is estimated at 202/100,000 live births (*Zambia Country Programme*). The major underlying causes of maternal mortality are reported as:

- young age at first pregnancy (17.9 years), lack of birth spacing,
- lack of knowledge about high risk on the part of both service providers and users,
- high numbers of deliveries supervised by untrained personnel,
- poorly equipped health facilities,
- poor referral systems,
- the use of some damaging traditional practices during labor

B. Intervention Area

The Eastern Province is among Zambia's poorest. Surveys have demonstrated that there is a higher incidence of poverty among rural Eastern Province households (*Zambia Country Programme*, UNICEF), and

that rural infant mortality rates and child mortality rates are higher than in the other provinces (ZDHS, 1992). In the Eastern Province 56 percent of rural residents earn less than official poverty level for Zambia.

The majority of rural Zambian households do not consume their own produce, but rather sell it immediately after harvest to generate income. Therefore, food security is poor, particularly during the seasons between harvests, as cash from the previous harvest is depleted. Rising food prices, inflation, and unemployment have hit women and children most heavily. Malnutrition is on the increase, from a national figure of 6.1% underweight in the under-five age group in 1980 to 20 % in 1990. In rural areas, the percentage of underweight children is more than double that of urban areas. In the Eastern Province, the figures are among the highest in the country, with fully 48% of the children recorded as stunted, 23% undernourished, and 5% wasted. To add to the area's vulnerability, fully 30 percent of Eastern Province households are female-headed, the largest share in the country. These households are among the poorest in the districts.

The Eastern Province is the third most populated province in the country, yet its health coverage is among the lowest, with only 75 TBAs per 100,000 population, and 54 CHWs per 100,000 population. The District Health Offices of Chadiza and Chipata Districts cites a critical problem due to a lack of adequate numbers of personnel for health extension services. In the Chipata District there are currently only 99 trained CHWs and 154 trained TBAs. District health staff in both target districts were unable to estimate those CHWs and TBAs still active in their villages.

At present, three major factors in the Chadiza and Chipata districts of Zambia combine to produce the poor health status of rural mothers, their infants and children. First is the lack of physical access to primary health care. In the Eastern Province half of the population's access to rural health clinics and hospitals is below optimum levels: 41% are within 6-15 km, and 10% are 16 km or further. Rural health center (RHC) staff in both districts reported to the ADRA planning team that patients typically are not brought to the clinic until the illness has reached acute stages.

The second factor is the weak health care structure at the district level. Even for those enjoying closer proximity to health facilities, this does not always translate into adequate primary health care. The serious lack of staff and resources at the district level has significantly reduced the effectiveness of the rural health clinic (RHC). Extension efforts beyond the RHC are typically sporadic. Residents usually receive health services only when they travel to the RHC, when staff are present at the time of the visit, and when medicines and materials are available at the time of the visit. Only when all of these conditions coexist is health care provided.

C. Objectives of the Survey

A standardized survey was carried out by the project staff in collaboration with ADRA/I Monitoring and Evaluation Unit and a survey trainer from ADRA Ghana. The ADRA/Zambia core staff was adequately trained to conduct future Rapid K & P surveys with a minimum of external assistance.

The Rapid Knowledge and Practice baseline survey was carried out in the new impact intervention area for immunization, nutrition, diarrheal disease control (CDD), maternal care/birth spacing, HIV/AIDS and malaria.

The objectives of the survey are to provide ADRA/Zambia with knowledge and practice baseline information in the impact area about the following issues:

- Mothers' knowledge (mothers of children under two) regarding: maternal care, family planning, appropriate weaning practices and nutrition, diarrheal disease control, immunizations malaria chemoprophylaxis, HIV/AIDS prevention and kitchen gardening.
- Mothers' practices related to the intervention areas mentioned above and safe motherhood.
- Target groups for health education messages.
- Immunization card coverage rate of children (12-23 months) with BCG, DPT, OPV, and measles vaccine.
- Card coverage rate with Tetanus Toxoid (TT) of mothers of children under two.

D. Schedule of Activities

Preliminary Rapid KPC Survey activities include the following:

- Orientation to project and preliminary training of project coordinators
- Core Team formation
- Finalize the questionnaire - 49 questions
- Translation of the questionnaire into Nyanja Logistic preparation and preparation of materials
- Training Preparation and assignments
- Training of supervisors and interviewers
- Field training exercise of interviewers and supervisors with test of the teams and questionnaire including a debriefing
- Adjustments and reproduced questionnaire
- Data collection (two days) 300 interviews of 49 questions
- Data entry files written for Epi Info 6.0 software program
- Data entry into Epi Info 6.0 software program
- Finalizing data entry 300 interview records entered
- Data analysis and debriefing completed
- ADRA project staff analysis, discussion and feedback of the data
- Finalize of survey draft report
- Feedback by ADRA CS XI project to communities surveyed, MOH and USAID/Zambia

II. Methodology

A. The Questionnaire

The standardized survey questionnaire was designed by CSSP Johns Hopkins with assistance of US and international experts for the various intervention areas. Frequent discussions were held with ADRA Headquarters, ADRA/Zambia to further customize and finalize the standard questionnaire. The questionnaire was administered to mothers aged 14 to 53 with a child of under 24 months of age.

The survey was composed of 49 questions (see Sub-Appendix B and C for the English and Nyanja language questionnaires).

The questionnaire was first written in English and then translated into Nyanja. A translated version was presented to interviewers and supervisors during training. This was further refined for clarity of the intent of the questions.

B. Determination of Sample Size

The sampling methodology followed the 30 cluster sampling according to the WHO/EPI model. For the determination of the sample sizes, the following formula was used:

$$n = z^2 pq/d^2$$

where n = the sample size, z = statistical certainty chosen p = coverage rate; level of knowledge, and q = 1-p, d = degree of precision.

The sample size was set up in the following way:
the degree of precision (d) was set up at 0.1
and the p was set up at 0.5.

Thus, the resulting minimum sample size was 210, which was increased to 300 for statistical improvement in the sub-strata findings.

The number of clusters was 30 with a sample size equal to 300. Thus, in each cluster, ten mothers with children under two years of age were interviewed.

C. Selection of Sample

The following methodology was used: the sampling interval was calculated by dividing the total population by 30; and using a random number as a starting point 30 clusters were chosen.

The starting point for each cluster was determined in the following manner: the center of the village was located and a random direction was selected. The first household encountered in the randomly chosen direction was the starting point. The second and subsequent households were the ones which were nearest to the previous one.

For each cluster, 10 mothers were interviewed in both intervention area. In case the mother was not available at the time of the interview, the interviewer rescheduled the interview. If the mother was not present at the time of the rescheduled appointment, another household was chosen (the household nearest to the last household).

D. Training of Supervisors and Interviewers

There were 5 supervisors (project officers) and 10 interviewers (community health workers and students), whose training lasted three days (including the pilot test). The training was carried out in English and Nyanja by the Core Team members with assistance by Victoria Daaku from ADRA/Ghana.

The training included the purpose of the survey, sample size, sampling methodology, household starting point, understanding of the meaning of each question and how to ask each question. Role plays were used to familiarize the interviewers with the technique to be used. Each interviewer was expected to role play the entire questionnaire three times and conducted at least one household interview during the field exercise.

The tasks of the supervisors and interviewers were also outlined. The three main tasks of the supervisors were to:

1. Select the starting point
2. Observe one interview each day
3. Check the questionnaires for accuracy and completeness and sign each, when finished, as their approval assurance.

Finally, the interviewers and supervisors went out into a project area (that had not been selected as one of the 30 clusters) to interview mothers for the pilot test. A debriefing session was held to deal with any questions that had arisen during the afternoon and to re-emphasize important points in preparation for data gathering the following day. Staff were available for input throughout the entire training process. The debriefing session after the pilot test was conducted by the Project Manager, the Core Team staff and consultants.

E. Conducting of the Interviews

The supervisors observed an interview for each interviewer per day. They verified the questionnaire in order to check out its quality and accuracy.

There were concerns for sensitive questions contained in the questionnaire, namely the maternal care questions on birth spacing, prenatal care HIV/AIDS and birth delivery. For this reason, the surveyors decided only to select well trained interviewers in order to make sure that the mothers interviewed were comfortable answering the questions thus assuring the reliability of the data.

F. Method of Data Analysis

The data entry and analysis was done by computer using Epi Info 6.0. For the data analysis, frequencies and cross tabs were generated for key indicators. Further analyses were done to establish more meaningful associations between certain characteristics and behaviors that would affect the development of health education messages.

III. Results and Discussion

The following answers were given for the 49 questions. 300 questionnaires were tabulated and analyzed.

A. Identification Module

2. 15.0% (45/300) of the children in the survey were under four months of age. 51.7% (155/300) of the children were under the age of one year (0-11 months of age). 48.3% (145/300) of the children in the survey were 12-23 months of age. The mean age of children in the survey was 11.4 months.

Age	Frequency	Percent	Cumulative Percent
1	9	3.0	3
2	16	5.3	8.3
3	20	6.7	15.0
4	9	3.0	18.0
5	15	5.0	23.0
6	15	5.0	28.0
7	14	4.7	32.7
8	8	2.7	35.3
9	15	5.0	40.3
10	14	4.7	45.0
11	20	6.7	51.7
12	14	4.7	56.3
13	13	4.3	60.7
14	14	4.7	65.3
15	19	6.3	71.7
16	18	6.0	77.7
17	14	4.7	82.3
18	8	2.7	85.0
19	7	2.3	87.3
20	8	2.7	90.0
21	6	2.0	92.0
22	13	4.3	96.3
23	11	3.7	100.0

B. Mother's Education and Occupation Module

Formal Education and Literacy

3. 35.0% (105/300) of mothers surveyed reported that they had no formal education. 31.3% (94/300) reported that they had attended primary school but could not read. 27.3% (82/300) had attended primary school and could read. 6.3% (19/300) had either a secondary or higher level of education. In sum, 66.3% (199/300) either did not attend school or went to primary school but do not read. 33.6% (101/300) reported that they could read.

Income Generating Work

4. 19.0% (57/300) of the mothers reported that they were not involved in any income generating work. 46.3% (139/300) stated that they earn income from selling agricultural products. 19.3% (58/300) reported that they receive income from work as a shop keeper/vendor. 16.3% (49/300) received income from selling foods/dairy products. 10.3% (31/300) stated that they received income from harvesting. 5.0% (15/300) stated that they worked as a servant. 3.0% (9/300) reported that they received income from handicrafts. 1.7% (5/300) stated that they were salaried workers. 9.0% (27/300) reported earning income from categories not listed in the questionnaire.

C. Breast Feeding/Nutrition Module

Prevalence and Persistence of Breast Feeding

5. 94.7% (284/300) of mothers reported that they are currently breast feeding their child. Of those mothers in the survey with a child 20 - 23 months of age 39.5% (15/38) said that they were not breast feeding.
6. 85.7% (12/14) said that they had breast-fed their child in the past and 14.3% (2/14) said they had not breast-fed.

Initiation of Breast Feeding

7. Only those mothers who were currently breast feeding or who had breast-fed in the past were asked this question (298). 46.6% (139/298) reported that they began breast feeding their child during the first hour after delivery. 30.9% (92/298) reported that they began between one and eight hours after delivery. 16.1% (48/298) of mothers stated that they waited more than eight hours after delivery to begin breast feeding. In sum, 77.5% (231/298) stated that they had begun breast feeding within the eight hours.

Exclusive Breast Feeding

8. Of the children, 0-3 months of age (45), 4.4% (2/45) were being exclusively breast-fed. In other words, they were not being given any of the food/fluid categories listed in question 8a- 8i. Of the 95.6% (43/45) of the mothers who were not exclusively breast feeding. 88.4% (38/43) were adding water and herbal teas.

Introduction of Supplements

- 8a. Of the children 5-9 months of age (52), 96.2% (51/52) were being given complimentary foods. That is, the mothers are giving their infants at least one of the non-fluid food categories listed in question 8c - 8i.

Improvement of Breast Feeding

9. Mother gave the following suggestions as to what a mother could do in the baby's first four months of life to keep breast feeding; frequent sucking to stimulate production, 19.7% (59/300); exclusive breast feeding during the first four months, 15.3% (46/300); care of breasts/nipples, 4.0% (12/300); breast-fed as soon as possible after delivery, 2.7% (8/300); avoid bottle feeding of baby, 1.7% (5/300); relaxation, 1.7% (5/300).

33.7% (101/300) of the mothers gave an answer not listed in the question. 31.0% (93/300) said they did not know.

10. 44.3% (133/300) of the mothers responded that they should start giving a child foods in addition to breast milk earlier than four months of age. 44.0% (132/300) said a mother should start adding foods other than breast milk between 4-6 months of age. 6.7% (20/300) said to start adding other foods about 6 months of age. 2.7% (8/300) reported to start adding later than 6 months of age. 2.3% (7/300) said they did not know.

Discussion and Recommendations

The rate of early initiation of breast feeding seems relatively high, since more than three-fourths of mothers surveyed reported that they breast-fed within the first eight hours after birth.

It is of concern to the project that only a small percentage of 0-3 month-old surveyed were being exclusively breast-fed. Given that poverty-induced malnutrition is relatively high in the project area, and water sources are neither secure nor free of health hazards, young infants who are not exclusively breast-fed are likely to be malnourished, and in poor health. A relatively high percentage of infants less than four months old get water or herbal teas, and over 70 and 80 percent, respectively get gruels or porridge in addition to breast milk.

Introduction of solid/semi-solid food is clearly not an area in need of improvement, since a large majority of mothers begin to supplement breast milk diets even before the end of the fourth month. Approximately forty-four percent of the mothers surveyed seem to believe that breast feeding should be supplemented with other foods earlier than the age of four months.

D. Growth Monitoring Module

Possession of Growth Monitoring Card

11. 93.3% (280/300) of mothers had a growth monitoring card for their child. 1.3% (4/300) said they had lost the card. 5.3% (16/300) said they never had a growth monitoring card.

Use of Growth Monitoring Card

12. 68.3% (183/268) of the children with growth monitoring cards had been weighed in the last 4 months. 31.7% (85/268) had not.

Discussion and Recommendations

Less than seven percent of the mothers surveyed did not have a growth monitoring card for their child (including the 1.3% who lost the card). Retention of the card appears to be relatively high, and coverage by the growth monitoring aspect of primary health care seems good.

Even though MOH policy mandates that infants (children under the age of one year) be weighed monthly, and children between 12 and 23 months be weighed every two months, survey data show that about one third of the children under 24 months of age who had a growth monitoring card had not been weighed at all in the last four months. This may signify a gap in service delivery or a difficulty with access for mothers.

E. Diarrheal Disease Module

Incidence of Diarrhea

13. 40.7 % (122/300) of the mothers reported that their child had diarrhea within the past two weeks prior to the survey. None of the mothers stated that they didn't know if their child had diarrhea in the past two weeks.

Continuation of Breast Feeding during Diarrhea

14. 120/122 with a child who had diarrhea in the past two weeks answered this question. Of the 112 infants/children in this survey who were still being breast-fed and had diarrhea in the past two weeks, 38.4% (43/112) were given breast milk the same as usual. 18.8% (21/112) were given more than usual. In sum, 57.1% (64/112) were breast-fed the same amount or more than usual during the diarrheal episode.

35.7% (40/112) mothers gave their child less breast milk than usual and 7.1% (8/112) gave less breast milk or stopped giving breast milk completely during the diarrheal episode. In sum, 42.9 (48/112) gave less breast milk or stopped giving breast milk completely.

Continuation of Fluids other than Breast Milk during Diarrhea

15. 121 mothers of 122 with a child who had diarrhea in the past two weeks answered this question. Of the 109 infants/children in the survey who were not being exclusively breast-fed and who had diarrhea in the past two weeks, 28.4% (31/109) were given more fluids (other than breast milk) during the diarrheal episode. 26.6% (29/109) were given fluids the same as usual. In sum, 55.0% (60/109) were given fluids other than breast milk more or the same amount as usual.

41.3% (45/109) of mothers gave their child less fluids than usual. 3.7% (4/109) stopped giving their child fluids completely. In sum, 45.0% (49/109) gave less fluids or stopped completely giving fluids other than breast milk during their child's diarrheal episode.

Continuation of Solid/Semi-solid Foods during Diarrhea

16. 121 mothers of the 122 with a child with diarrhea in the past two weeks answered this question. Of the 111 infants/children in the survey who are not being exclusively breast-fed but had diarrhea in the past two weeks, 13.5% (15/111) were being given solid or semi-solid foods more than usual. 22.5% (25/111) were given the same as usual solid/semi-solid foods. In sum, 36.0% (40/111) were given more or the same as usual solid/semi-solid foods during the diarrhea episode.

56.8% (63/111) of mothers gave their child less than usual amounts of solid/semi-solid foods during the diarrheal episode and 7.2% (8/111) stopped giving them completely. In sum, 64.0% (71/111) gave less or stopped completely giving solid/semi-solid foods during their child's diarrheal episode.

Treatment of Diarrhea

17. 121 mothers of 122 with a child with diarrhea in the past two weeks answered this question. 76.9% (93/121) mothers used the ORS sachet. 13.2% (16/121) gave a sugar-salt solution as treatment. 9.9% (12/121) mothers gave their child anti-diarrheal or antibiotics as treatment for their child's diarrhea. 4.1% (5/121) used a cereal-based ORT. 0.8% (1/121) gave home fluids to their child.

11.6% (14/121) gave something other than the categories listed in question 17. 5.0% (6/121) did not give any treatment for their child's diarrhea.

Seeking Advice or Treatment for Diarrhea

18. 62.8% (76/121) of mothers with a child with diarrhea in the past two weeks sought advice or treatment for their child's diarrhea.
19. Of the 76 mothers who sought advice or treatment for their child's diarrhea, 60.5% (46/76) went to a clinic or health center. 27.6% (21/76) went to a general hospital. 7.9% (6/76) sought advice from friends and relatives. 3.9% (3/76) went to a traditional healer. 2.6% (2/76) went to a traditional birth attendant. 1.3% (1/76) went to a village health worker. 5.3% (4/76) sought help from sources other than those listed in question 19. No mothers sought advice/treatment from a private clinic/doctor or pharmacy.

Signs/Symptoms of Diarrhea that Cause Mothers to Seek Advice for Diarrhea

20. Of the mothers interviewed, when asked what signs/symptoms would cause them to seek advice or treatment for their child's diarrhea, stated the following: weakness/tiredness, 54.0% (163/300); diarrhea of prolonged duration, 34.7% (104/300); loss of appetite, 33.7% (101/300); fever, 24.0% (72/300); dehydration, 15.7% (47/300); blood in stool, 8.0% (24/300). 10.7% (32/300) responded with a sign other than those listed in the question. 4.3% (13/300) said they did not know.

Actions Taken When a Child Has Diarrhea

21. When asked what important actions a mother should take when her child had diarrhea, the women responded as follows: take a child to the hospital/health center, 70.3% (211/300); proper mixing and administration of ORS, 38.3% (115/300); gave the child more to drink than usual, 10.3% (31/300); initiate fluids rapidly, 2.3% (7/300); give the child smaller more frequent feeds, 2.3% (7/300); withhold fluids, 2.0% (6/300); withhold foods, 0.3% (1/300). 17.3% (52/300) responded with an action other than those listed in the question. 1.7% (5/300) said they did not know.

Actions Taken When a Child is Recovering from Diarrhea

22. Mothers responded in the following manner when asked to list important actions a mother should take when her child is recovering from diarrhea: give more foods than usual, 45.3% (136/300); give foods with high caloric content, 22.7% (68/300); give the child smaller more frequent feeds, 20.7% (62/300). 13.3% (40/300) responded with an action other than those listed in the question. 12.7% (38/300) said they did not know.

Discussion and Recommendations

More than forty percent of the children whose mothers were interviewed had experienced a diarrheal episode during the last two weeks. This demonstrates significant need for interventions which aim to control diarrheal disease. Furthermore, the questions which explored mothers' knowledge regarding diarrhea and its treatment revealed a need for more health education which will enable mothers to take measures which prevent and/or correctly treat (or refer) diarrheal episodes.

In regards to the surveyed children's dietary changes during a diarrhea episode, relatively high percentages of mothers breast feed less or not at all, and give less fluids and solid/semi-solid foods if at all. Nutrition is a critical during diarrheal episodes, and messages about continued feeding and hydration will be an integral part of the health education given by CHWs.

More than three-fourths of the mothers surveyed use ORS packets to treat their child's diarrhea and more than 13% use sugar-salt solution. Although sugar-salt solution (known as SSS locally) is no longer internationally recommended, the MOH of Zambia continues to support its use, only if correctly made, in the event that ORS packets are unavailable.

F. Immunization Module

Reported Immunizations

23. 91.7% (275/300) of mothers surveyed reported that their child had received at least one immunization. 8.0% (24/300) of the mothers reported that their child had not received any immunizations and 0.3% (1/300) did not know.

Knowledge of Age for Measles Immunization

24. 25.0% (73 of the 292 mothers who answered the question) stated that a child should receive the measles vaccine at nine months of age. 43.2% (126/292) gave an age other than nine months. [The range of ages given was 1-36 months, with an average of 8.6] 31.8% (93/292) did not know. In sum, 75% (219/292) did not know that a child should receive the measles vaccine at nine months of age.

Knowledge of Reasons for Tetanus Toxoid Vaccinations

25. 296 of the mothers answered this question. 27.4% (81/296) stated that the main reason pregnant woman need to be vaccinated with the tetanus toxoid (TT) vaccine is to protect both mother and new born. 8.4% (25/296) said to protect only the mother, and 39.5% (117/296) said to protect only the new born. 24.7% (73/296) stated that they did not know or reported something other than the categories listed in question 25.

Knowledge of Number of Tetanus Toxoid Vaccinations Necessary for Protection

26. 298 mothers answered this question. 53.4% (159/298) stated that a pregnant woman needs more than two TT injections to protect the new born infant from tetanus. 15.4% (46/298) said that a pregnant woman needs two TT, 14.4% (43/298) said that a pregnant woman needs one injection, and 2.3% (7/298) said that none were needed. 14.4% (43/298) said that they did not know. In summary, 68.8% (205/298) stated that a pregnant woman needs at least two TT injections to protect the new born infant from tetanus; and 31.2% (93/298) stated that none was needed, one was needed or did not know.

Possession of Immunization Card

27. 93.6% (276/295 mothers who answered the question) were able to show an immunization card for their child. 4.7% (14/ 295) said their child had never had an immunization card and 1.7% (5/295) of the mothers reported that they had lost the card.
28. Immunization Coverage

BCG Status for 145 children 12-23 months of age			
No BCG		Yes BCG	
#	%	#	%
8	5.6	136	94.4

OPV Status for 145 children 12-23 months of age							
OPV1		OPV2		OPV3		Drop Out	
#	%	#	%	#	%	DO Freq	DO Rate
140	97.2	133	92.4	126	87.5	14	10.0

DPT Status for 145 children 12-23 months of age							
DPT1		DPT2		DPT3		Drop Out	
#	%	#	%	#	%	DO Freq	DO Rate
139	96.5	132	91.7	124	86.1	15	10.8

Measles Status for 145 children 12-23 months of age			
No Measles		Yes Measles	
#	%	#	%
22	15.3	122	84.7

Fully Immunized Status for 145 children 12-23 months of age			
Not Fully Immunized		Fully Immunized	
#	%	#	%
32	22.2	112	77.8

Discussion and Recommendations

The baseline survey results in this module were surprisingly high, although immunization statistics for Zambia (according to MOH and *State of the World's Children 1995* dates/estimates). However, occasional outbreaks of some childhood diseases (e.g. measles) indicate a possible problem with either the system of recording immunizations or with the quality of the cold chain (vaccine viability).

More needs to be done in the area of promoting timely immunizations and educating mothers as to the benefit of vaccinations to the health of children and mothers, also clarifying confusion regarding possible side effects and ensuing misconceptions. If mothers will know all the basic information about immunizations, this will improve their receptiveness toward other health messages and services.

G. Maternal Care Module

Possession of Maternal Cards

29. 46.2% (138/299) mothers surveyed had maternal health cards. 42.1% (126/299) reported they had lost their card. 11.7% (35/299) stated that they did not have a health card.

Tetanus Toxoid Injections Indicated on Maternal Health Card

30. 73.2% (101/138) had two or more TT vaccinations. 15.2% (21/138) had one TT injection indicated on the card. 11.6% (16/138) had none.

Pre-natal Care Visits

Pre-natal Care Visits

31. 89.9% (124 of the 138 women with maternal health cards) had cards with space to record ante-natal care visits. 10.1% (14/138) did not.
32. 8.9% (11 of the 123 women with cards and spaces to record ante-natal visits who answered the question) made one ante-natal visit. 89.4% (110/ 123) made two or more visits. 1.6% (2/123) made no ante-natal care visits. 8.9%(11/123) made one ante-natal visit.

Pregnancy

33. 11.8% (35/297 who answered the question) reported that they are now pregnant. 88.2% (262/297) said they did not know if they are pregnant.

Contraception

34. When asked if they wanted to have another child in the next two years, 52.3%(137/262 not pregnant) said yes. 44.3% (116/262 said no. 3.4% (9/262) said they did not know.
35. Of the 125 non-pregnant women who said they did not want to have a child in the next two years or did not know if they did, 36.0% (45/125) said they are currently using any method to avoid/postpone pregnancy. 64.0% (80/125) reported they are not using any method.
36. Of the 43 who are using some form of birth control, 62.8% (27/43) took the pill. 30.2% (13/43) used abstinence. 27.9% (12/43) used condoms. 11.6% (5/43) had tubal ligations. 4.7% (2/43) used injections and also 4.7% (2/43) used a barrier/diaphragm. No one said that they were using: vasectomy, Norplant, IUD, foam/gel, exclusive breast feeding, rhythm, or coitus interruptus as a method. Other methods not listed in the question were used by 18.6% (8/43).

Knowledge of Pre-natal Care

37. 28.1% (84/ 299) knew that a pregnant woman should see a health professional within the first trimester. 69.6% (208/ 299) said that the first visit should be in the middle of the pregnancy. 1.3% (4/299) said it should be in the last trimester. 1.0% (3/299) said they did not know when to see the health worker. No one said there was no need to see a health worker.
38. Foods good for a pregnant woman to eat to prevent pregnancy anemia were reported as follows: leafy green vegetables, 80.3% (241/300); proteins rich in iron (eggs, meat, fish), 51.3% (154/300); other foods (such as mangoes) were mentioned by 45.7% (137/300). 5.4% (16/300) said they did not know.
39. Knowledge of how much weight a woman should gain during pregnancy was reported as follows: 8 to 10 kilograms, 10.0% (30/300); gain weight of baby, 30.7% (92/300); other responses, 10.3% (31/300); said they did not know, 49.0% (147/300).

Pre-natal Care Behavior

40. 95.3% (285/299) reported that they had a visit to a health facility for pregnancy/prenatal care during their last pregnancy. 4.7% (14/299) said they had not visited a health facility.
41. When pregnant with the last child, the amount of food eaten was more than usual for 32.4% (97/299); same as usual, 24.7% (74/299); less than usual, 42.8% (128/299). Did not know, 0%.

Delivery

42. 38.0% (114 of the 300 who responded to this question) reported that a traditional birth attendant tied and cut the cord at the delivery of their last child. 29.3% (88/300) said that it was done by a family member. 28.7% (86/300) went to a health professional (physician/nurse /midwife). 2.0% (6/300) tied the cord themselves. For 0.7% (2/300) the cord was tied by someone other than those listed in question 42 and 1.3% (4/300) said they did not know.

Discussion and Recommendations

It is of concern that almost one third of mothers surveyed delivered their last child with only the aid of a family member. Also, health-care seeking behaviors seem hampered by incorrect knowledge. For example, a majority of women thought that the best time to receive prenatal care is in the middle of the pregnancy.

Birth control usage is very low in the project area. Two thirds of women not wanting another child in the next two years (or not yet sure), use no birth control.

Accurate knowledge of pregnancy nutrition seems relatively good, with over four-fifths of mothers surveyed knowing that green leafy vegetables and eggs/meat/are rich in iron and essential for the health of pregnant mothers. Whether mothers actually eat such foods or not was asked in the survey, but according to qualitative information, there are many cultural barriers and taboos which keep mothers-to-be from getting the nutrition they need.

H. HIV/AIDS Module

Knowledge of Transmission

43. 58.7% (176/300) mentioned sexual intercourse as a method of transmitting HIV. 46.3% (139/300) stated that sharing blood contaminated razors/needles was a means of transmission. 9.7% (29/300) mentioned transmission from mother to child. 5.3% (16/300) said that sharing clothing/towels could spread HIV. 3.0% (9/300) reported that kissing was a means of transmission. 2.0% (6/300) stated that the following could transmit HIV: shaking hands; mosquitoes; and eating contaminated foods. 16.3% (49/300) stated other methods of transmission.

Knowledge of Prevention

44. 30.0% of the mothers (90/300) stated that AIDS can be prevented by avoiding unsterilized needles/razors. 29.0% (87/300) mentioned abstinence as a method of prevention. 23.0% (69/300) listed use of condoms in prevention of transmission. 11.4% (34/300) mentioned mutual fidelity between uninfected partners. 3.3% (10/300) stated the avoidance of unscreened blood transfusions. 49.5% (148/300) reported that there were others ways of preventing AIDS.

Discussion and Recommendations

Knowledge levels regarding HIV/AIDS prevention are relatively low. A very small percentage of the women interviewed mentioned abstinence and mutual fidelity between uninfected partners as the surest methods of prevention. Only a little over half of the women mentioned sexual contact as a way of transmitting the HIV/AIDS virus, and less than 10% knew that it can be transmitted from mother to child. This is vital information which must be given to all. Thus, education appears to be the surest way to improve the profile of HIV infection in the project area.

I. Vegetable Gardening Module

Kitchen/Vegetable Gardens

45. 69.4% of the women (204/294) said they have a kitchen (vegetable) garden.
46. The mothers with gardens reported that they grew the following types of plants: green leafy vegetables, 62.7% (128/204); yellow vegetables, 36.3% (74/204); legumes, 14.7% (30/204). 58.8% (120/204) said they grew vegetables other than those listed.
47. Mothers gave the following responses as to what they do with the harvest from their gardens: consume half and sell the other half, 75.0% (153/204); consume most of it, 20.6% (42/204); sell most of it, 34% (42/204); and other responses, 1.0% (2/204).
48. Those women who did not have a garden were asked why they did not. Their answers follow: no water, 54.3% (50/92); no land, 35.9% (33/92); no seed, 4.3% (4/300); no need, 3.3% (3/92); no knowledge, 3.3% (3/92); no time, 2.2% (2/92); and other reasons not listed, 15.1% (14/92).
49. 95.7% (88/92) of those mothers who did not have a kitchen garden said they wanted to have one. 4.3% (4/92) said they did not.

Discussion and Recommendations

From the nutritional standpoint, kitchen gardens are a necessity in the project area, to supplement a diet which is based mainly on corn (white maize), the agricultural staple in most of Zambia. However, of 300 women surveyed, only 204 had a kitchen garden, and the majority grew vegetables and no protein-rich plants (legumes). The diet of many mothers and children in the project area consists of mainly carbohydrates, with very little added protein, so the cultivation and consumption of beans, soybeans, and peanuts would have a

positive effect on the nutritional status of target groups. Nutrition education should focus on nutritional diversity and balance, and a way to inexpensively supplement the typical diet of maize.

30-Cluster Population/Village Selection

Cluster	Village	Health Center/Ward	District
1	Lopo	Mwami Border Post	Chipata
2	Makwe	Mwami Hospital	Chipata
3	Mtowe	Mwami Hospital	Chipata
4	Kaluba	Mwami Hospital	Chipata
5	Dambe	Simon Lopo/ Mwami Hospital	Chipata
6	Katambo	Mwami Hospital	Chipata
7	Mchenjeza	Mwami Hospital	Chipata
8	Mlanga	Mwami Hospital	Chipata
9	Zimema	Champhande RHC	Chipata
10	Magwero	Mwami Border Post	Chipata
11	Zambezi	Chikando RHC	Chipata
12	Zondo	Chikando RHC	Chipata
13	Mchacha	Chikando RHC	Chipata
14	Mathambo	Jerusalem RHC	Chipata
15	Chimkute	Jerusalem RHC	Chipata
16	Zyoli	Mwangazi	Chadiza
17	Chikomba	Chilenga	Chadiza
18	Chaoleka	Chisiya	Chadiza
19	Chipankhu	Kandabwako	Chadiza
20	Kafulukuta	Tafelansoni	Chadiza
21	Jeke	Ambiadzi	Chadiza
22	Kasiya	Nsadzu	Chadiza
23	Kumba	Kumba	Chadiza
24	Mlawe	Mlawe	Chadiza
25	Chimwendo	Sindemisale	Chadiza
26	Mankota	Sindemisale	Chadiza
27	Lavu	Chamandala	Chadiza
28	Chisazi	Naviruli	Chadiza
29	Kaphale	Mangwev	Chadiza
30	Kamchacha	Mangwe	Chadiza

IV. Feedback Sessions/Arrangements

There was one feedback session held with staff and the USAID representative in Zambia. The feedback session was attended by the USAID representative, the CS Program Manager, the Senior Program Officer.

A feedback session was conducted in the Chipata and Chadize districts, Eastern Province of Zambia in the presence of the program manager, the local political leaders and elders for the field-based staff which will provide feedback to the communities surveyed.

V. Key Child Survival XI Indicators for Zambia

Practice and coverage indicator calculations are based on the *PVO Child Survival Knowledge, Practice, and Coverage (KPC) Survey Questionnaire* (version dated 10/11/95).

Intervention	Key Effect Indicators	Baseline Survey Results
Nutrition Improvement	1. Appropriate Infant Feeding Practices: Initiation of Breast Feeding (a) Percent of children less than 24 months old who were breast-fed within first hour after birth (b) Initiation of breast feeding within the first eight after birth	46.3% 77.0%
	2. Appropriate Infant Feeding Practices: Exclusive Breast feeding Percent of children (<4 months) who are being given only breast milk	2.2%
	3. Appropriate Infant Feeding Practices: Introduction of Foods % of infants/children between 5-9 months who are being given solid or semi-solid foods	96.2%
	4. Appropriate Infant Feeding Practices: Persistence of Breast feeding % of children between 20-24 months who are still breast feeding (and being given solid/semi-solid foods)	60.5%

Intervention	Key Effect Indicators	Baseline Survey Results
CDD	5. Management of Diarrheal Diseases: Continued Breast feeding % of infants/children (<24 months) with diarrhea in the last two weeks who were given the same amount or more of breast milk	56.1%
	6. Management of Diarrheal Diseases: Continued Fluids % of infants/children (<24 months) with diarrhea in the past two weeks	52.6%
	7. Management of Diarrheal Diseases: Continued Foods % of infants/children (<24 months) with diarrhea in the past two weeks who were given the same amount or more food	35.1%
	8. Management of Diarrheal Diseases: ORT Usage % of infants/children (<24 months) with diarrhea in the past two weeks who were treated with ORT	81.1%
ALRI	9. Pneumonia Control: Not a project objective.	
EPI	10. Immunization Coverage (Card): EPI Access % of children 12-23 months who received DPT1	96.5%
	11. Immunization Coverage (Card): EPI Coverage % of children 12-23 months who received OPV3	87.5%
	12. Immunization Coverage (Card): Measles Coverage % of children 12-23 months who received measles vaccine	84.7%
	13. Immunization Coverage (Card): Dropout Rates (a) % of 'drop-outs' between DPT1 and DPT3 (b) Overall dropout rate: % of 'dropouts' between BCG and measles	10.8% 12.2%

Intervention	Key Effect Indicators	Baseline Survey Results
MCH	14. Maternal Care: Maternal Card % of mothers with a maternal card	46.0%
	15. Maternal Care: Tetanus Toxoid Coverage (Card) % of mothers who received two doses of tetanus toxoid vaccine	33.7%
	16. Maternal Care: One or More Prenatal Visits % of mothers who had at least one prenatal visit	40.0%
	17. Maternal Care: Modern Contraceptive Usage % of mothers who desire no more children in the next two years, or are not sure, who are using a modern contraceptive method	26.4%
	Recommended Knowledge Indicators	
	1. Mother's Literacy % of mothers who are literate	33.6%
	2. Immunization Knowledge: Timeliness of Measles Vaccine % of mothers who know measles vaccine should be given at nine months	25.0%
	3. Immunization Knowledge: Tetanus Toxoid Protection % of mothers who know that tetanus toxoid protects both the child and the mother	27.4%
	4. Maternal Care Knowledge: Timeliness of Ante-Natal Care % of mothers who know that pregnant women should start prenatal care before the third trimester	97.7%

VI. References

1. *The EPI Coverage Survey Expanded Program on Immunization*. World Health Organization, October 1988.
2. Henderson, R.H. Sundaresan, T "Cluster sampling to assess immunization coverage: A review of experience with a simplified sampling method, *Bulletin of the World Health Organization*. 1982. 60 (2) : pp. 253-260.
3. UNICEF, UNESCO, WHO. *Facts for Life - A Communication Challenge*. UNICEF. New York, NY. 1989.
4. USD Incorporated. *Epi Info*, Version 6.0. Stone Mountain, Georgia. 1991.
5. *World Population Data Sheet*. Population Reference Bureau Inc. 1990.

Appendix A Survey Results

PVO Child Survival Rapid Knowledge, Practice & Coverage (KPC) Survey.

All questions were addressed to the mother with a child less than 24 months old.

Responses are given in percent to the nearest decimal, followed by number of respondents.

1. Age of the mother
Age in years (14-53), avg. = 26.5 (n=300)
2. Age of the child less than 24 months of age
Age in months (1-23), avg. = 11.4 (n=300)

Mother's Education/Occupation

3. What was the highest educational level you attained? (n=300)

	%	N
1. none	35.0	105
2. primary does not read	31.3	94
3. primary reads	27.3	82
4. secondary & higher	6.3	19
TOTAL	100.0	300

4. Do you do any "income generating work"? (Multiple answers possible; record all answers)
(n=300)

	%	N
a. nothing	19.0	57
b. handicraft, weaving, rugs, etc	3.0	9
c. harvesting, fruit picker	10.3	31
d. selling agricultural products	46.3	139
e. selling foods, dairy products	16.3	49
f. servant/household services	5.0	15
g. shop keeper, street vendor	19.3	58
h. salaried worker	1.7	5
i. other (specify) _____	9.0	27

Breast Feeding/Nutrition

5. Are you breast feeding (Name of child)? (n=300)

	%	N
1. yes ---> go to 7	94.7	284
2. no	5.3	16
TOTAL	100.0	300

6. Have you ever breast-fed (Name of child)? (n=14)

	%	N
1. yes	85.7	12
2. no ---> go to 8	14.3	2
TOTAL	100.0	14

7. After the delivery, when did you breast feed (Name of child) for the first time? (n=298)

	%	N
1. during the first hour after delivery	46.6	139
2. from 1 to 8 hours after delivery	30.9	92
3. more than 8 hours after delivery	16.1	48
4. do not remember	6.4	19
TOTAL	100.0	298

8. a. Are you giving (Name of child) water (or herbal teas)? (n=300)

	%	N
1. yes	96.7	290
2. no	3.3	10
3. doesn't know	0	
TOTAL	100.0	300

b. Are you giving (Name of child) cow milk, goat milk, or formula? (n=300)

	%	N
1. yes	51.5	154
2. no	48.7	146
3. doesn't know	0	
TOTAL	100.0	300

c. Are you giving (Name of child) semisolid foods such as gruels/porridge? (n=299)

	%	N
1. yes	93.0	278
2. no	7.0	21
3. doesn't know	0	
TOTAL	100.0	299

d. Are you giving (Name of child) fruits? (n=300)

	%	N
1. yes	69.7	209
2. no	30.3	91
3. doesn't know	0	
TOTAL	100.0	300

e. Are you giving (Name of child) carrot, squash, mango or papaya? (n=299)

	%	N
1. yes	73.2	219
2. no	26.8	80
3. doesn't know	0	
TOTAL	100.0	299

f. Are you giving (Name of child) dark green leafy vegetables, such as spinach? (n=300)

	%	N
1. yes	72.3	217
2. no	27.7	83
3. doesn't know	0	
TOTAL	100.0	300

g. Are you giving (Name of child) meat or fish? (n=300)

	%	N
1. yes	69.3	208
2. no	30.7	92
3. doesn't know	0	
TOTAL	100.0	300

h. Are you giving (Name of child) lentils, peanuts, or beans? (n=300)

	%	N
1. yes	75.7	227
2. no	24.3	73
3. doesn't know	0	
TOTAL	100.0	300

i. Are you giving (Name of child) eggs or yogurt? (n=300)

	%	N
1. yes	61.7	185
2. no	38.3	115
3. doesn't know	0	
TOTAL	100.0	300

j. Are you adding dark green leafy vegetables, such as spinach, to (Name of child)'s food? (n=299)

	%	N
1. yes	62.2	186
2. no	36.7	110
3. doesn't know	1.0	3
TOTAL	100.0	299

k. Are you adding honey or sugar to (Name of child)'s meals? (n=299)

	%	N
1. yes	68.5	205
2. no	31.4	94
3. doesn't know	0	
TOTAL	100.0	299

l. Are you adding fat (lard) or oil to (Name of child)'s meals? (n=300)

	%	N
1. yes	68.0	204
2. no	32.0	96
3. doesn't know	0	
TOTAL	100	300

- m. Are you adding iodized salt (local brand name) to (Name of child)'s meals?
(n=299)

	%	N
1. yes	13.0	39
2. no	30.1	90
3. doesn't know	56.8	170
TOTAL	100	299

9. What can a mother do in the baby's first four months of life to keep breast feeding?
(Multiple answers possible; record all answers.) (n=300)

	%	N
a. doesn't know	31.0	93
b. breast feed as soon as possible after delivery (don't discard colostrum)	2.7	8
c. care of breasts, nipples	4.0	12
d. frequent sucking to stimulate production	19.7	59
e. exclusive breast feeding during the first four months	15.3	46
f. avoid bottle feeding of baby	1.7	5
g. relactation (if had to stop, mother can resume breast feeding again)	1.7	5
h. other (specify) _____	33.7	101

10. When should a mother start adding foods to breast feeding? (n=300)

	%	N
1. start adding earlier than 4 months of age	44.3	133
2. start adding between 4-6 months of age	44.0	132
3. start adding about 6 months of age	6.7	20
4. start adding later than 6 months of age	2.7	8
5. doesn't know	2.3	7
TOTAL	100	300

Growth Monitoring

11. Does (Name of child) have a growth monitoring Card? (n=300)

	%	N
1. yes (must see card)	93.3%	280
2. lost card ---> go to 13	1.3	4
3. no ---> go to 13	5.3	16
TOTAL	100	300

12. a. Look at the growth monitoring card of the child, and record the following information: has the child been weighed in the last four months? (n=268)

	%	N
1. yes	68.3	183
2. no	31.7	85
TOTAL	100.0	268

- b. If 12-23 months of age with a growth monitoring card, has the child received at least one dose of vitamin A? (n=145)

	%	N
1. yes	48.6	70
2. no	51.4	75
TOTAL	100.0	145

Diarrheal Diseases

13. Has (Name of child) had diarrhea during the last two weeks? (n=300)

	%	N
1. yes	40.7	122
2. no ---> go to 20	59.3	178
3. doesn't know ---> go to 20	0	
TOTAL	100.0	300

14. During (Name of child)'s diarrhea did you breast feed...? (Read choices 1-4 to the mother.) (n=120)

	%	N
1. more than usual?	17.5	21
2. same as usual?	35.8	43
3. less than usual?	33.3	40
4. stopped completely?	6.7	8
5. child not breast-fed	6.7	8
TOTAL	100.0	120

15. During (Name of child)'s diarrhea, did you provide (Name of child) with fluids other than breast milk? (Read choices 1-4 to the mother.) (n=121)

	%	N
1. more than usual?	25.8	31
2. same as usual?	24.2	29
3. less than usual?	37.5	45
4. stopped completely?	3.3	4
5. exclusively breast feeding	9.2	12
TOTAL	100.0	121

16. During (Name of child)'s diarrhea, did you continue to provide (Name of child) with solid/semisolid foods. (Read choices 1-4 to the mother.) (n=121)

	%	N
1. more than usual?	12.5	15
2. same as usual?	20.8	25
3. less than usual?	52.5	63
4. stopped completely?	6.7	8
5. exclusively breast feeding	7.5	10
TOTAL	100.0	121

17. When (Name of child) had diarrhea, what treatments, if any, did you use? (Multiple answers possible; record all answers.) (n=121)

	%	N
a. nothing	5.0	6
b. ORS sachet	76.9	93
c. sugar-salt solution	13.2	16
d. cereal based ORT	4.1	5
e. infusions or other home available fluids	0.8	1
f. anti-diarrhea medicine or antibiotics	9.9	12
g. other specify _____	11.6	14

18. When (Name of child) had diarrhea, did you seek advice or treatment for the diarrhea? (n=121)

	%	N
1. yes	62.8	76
2. no ---> go to 20	37.2	45
TOTAL	100.0	121

19. From whom did you seek advice or treatment for the diarrhea of (Name of child)?
(Multiple answers possible; record each answer.) (n=76)

	%	N
a. general hospital	27.6	21
b. health center/clinic/post	60.5	46
c. private clinic/doctor	0	0
d. pharmacy	0	0
e. village health worker	1.3	1
f. traditional healer	3.9	3
g. traditional birth attendant	2.6	2
h. relatives & friends	7.9	6
i. other (specify) _____	5.3	4

20. What signs/symptoms would cause you to seek advice or treatment for (Name of the child's) diarrhea? (Multiple answers possible; record all answers.) (n=300)

	%	N
a. doesn't know	4.3	13
b. vomiting	18.3	55
c. fever	24.0	72
d. dry mouth, sunken eyes, sunken fontanelle, decreased urine output (dehydration)	15.7	47
e. diarrhea of prolonged duration	34.7	104
f. blood in stool	8.0	24
g. loss of appetite	33.7	101
h. weakness or tiredness	54.0	162
i. other (specify) _____	10.7	32

21. What are important actions you should take if (Name of child) has diarrhea? (Multiple answers possible; record all answers.) (n=300)

	%	N
a. doesn't know	1.7	5
b. initiate fluids rapidly	2.3	7
c. give the child more to drink than usual	10.3	31
d. give the child smaller more frequent feeds	2.3	7
e. proper mixing and administration of ORS	38.3	115
f. take child to the hospital/health center	70.3	211
g. feed more after diarrhea episode	1.7	5
h. withhold fluids	2.0	6
i. with hold foods	0.3	1
j. other (specify) _____	7.3	52

22. What are important actions a mother should take when a child is recovering from diarrhea? (Multiple answers possible; record all answers.) (n=300)

	%	N
a. doesn't know	12.7	38
b. give the child smaller more frequent feeds	20.7	62
c. more foods than usual	45.3	136
d. give foods with high caloric content	22.7	68
e. other (specify) _____	13.3	40

Immunizations

23. Has (Name of child) ever received any immunizations? (n=300)

	%	N
1. yes	91.7	275
2. no	8.0	24
3. doesn't know	0.3	1
TOTAL	100.0	300

24. At what age should (Name of child) receive measles vaccine? (n=292)

	%	N
1. specify in months	68.2	199
2. doesn't know	31.8	93
TOTAL	100.0	292

25. Can you tell me the main reason why pregnant women need to be vaccinated with tetanus toxoid vaccine? (n=296)

	%	N
1. to protect both mother/newborn against tetanus	27.4	81
2. to protect only the woman against tetanus	8.4	25
3. to protect only the newborn against tetanus	39.5	117
4. doesn't know or other	24.7	73
TOTAL	100.0	296

26. How many tetanus toxoid injections does a pregnant woman need to protect the newborn infant from tetanus? (n=298)

	%	N
1. one	14.4	43
2. two	15.4	46
3. more than two	53.4	159
4. none	2.3	7
5. doesn't know	14.4	43
TOTAL	100.0	298

27. Do you have an immunization card for (Name of child)? (n=295)

	%	N
1. yes (must see card)	93.6	276
2. lost it ----> go to 29	1.7	5
3. never had one ----> go to 29	4.7	14
TOTAL	100.0	295

28. Look at the vaccination card and record the dates of all the immunizations:
Children ages 12-23 months. (n=145)

	%	N
BCG	94.4	136
OPV 1st	97.2	140
2nd	92.4	133
3rd	87.5	126
DPT 1st	96.5	139
2nd	91.7	132
3rd	86.1	124
Measles	84.7	122

Maternal Care

29. Do you have a maternal health card? (n=299)

	%	N
1. yes (must see card)	46.2	138
2. lost it ----> go to 33	42.1	126
3. no ----> go to 33	11.7	35
TOTAL	100.0	299

30. Look at the maternal health card and record the number of TT vaccinations in the space below: (n=138)

	%	N
1. one	15.2	21
2. two or more	73.2	101
3. none	11.6	16
TOTAL	100.0	138

31. Does the card have space to record ante-natal care visits? (n=138)

	%	N
1. yes	89.9	124
2. no ----> go to 33	10.1	14
TOTAL	100.0	138

32. If, yes, record whether the mother ever made any ante-natal visit? (n=123)

	%	N
1. one	8.9	11
2. two or more	89.4	110
3. none	1.6	2
TOTAL	100	123

33. Are you pregnant now? (n=297)

	%	N
1. yes → go to 37	11.8	35
2. no	88.2	262
TOTAL	100.0	297

34. Do you want to have another child in the next two years? (n=262)

	%	N
1. yes ----> go to 37	52.3	137
2. no	44.3	116
3. doesn't know	3.4	9
TOTAL	100.0	262

35. Are you or your husband currently using any method to avoid/postpone getting pregnant? (n=125)

	%	N
1. yes	36.0	45
2. no ---> go to 37	64.0	80
TOTAL	100.0	125

36. What is the main method you or your husband are using now to avoid/postpone getting pregnant? (n=43)

	%	N
a. tubal ligation	11.6	5
b. vasectomy	0	0
c. Norplant	0	0
d. injections	4.7	2
e. pill	62.8	27
f. IUD	0	0
g. barrier method/diaphragm	4.7	2
h. condom	27.9	12
I. foam/gel	0	0
j. exclusive breast-feeding	0	0
k. rhythm	0	0
l. abstinence	30.2	13
m. coitus interruptus	0	0
n. other	18.6	8

37. When should a pregnant woman first see a health professional (physician, nurse, midwife, trained TBA)? (probe for months) (n=299)

	%	N
1. first trimester, 1-3 months	28.1	84
2. middle of pregnancy, 4-6 months	69.6	208
3. last trimester, 7-9 months	1.3	4
4. no need to see health worker		0
5. doesn't know	1.0	3
TOTAL	100.0	299

38. What foods are good for a pregnant woman to eat to prevent pregnancy anemia? (Multiple answers possible; record all answers.) (n=300)

	%	N
a. doesn't know	5.4	16
b. proteins rich in iron (eggs, fish, meat)	51.3	154
c. leafy green vegetables, rich in iron	80.3	241
d. other (specify) _____	45.7	137

39. How much weight should a woman gain during pregnancy? (n=300)

	%	N
1. 8-10 kilos	10.0	30
2. gain weight of baby	30.7	92
3. doesn't know	49.0	147
4. other (specify) _____	10.3	31
TOTAL	100.0	300

40. When you were pregnant with (Name of child) did you visit any health site (dispensary/ health center, aid post) for pregnancy/prenatal care? (n=299)

	%	N
1. yes	95.3	285
2. no	4.7	14
TOTAL	100.0	299

41. When you were pregnant with (Name of child) was the amount of food you ate? (Read the choices to the mother) (n=299)

	%	N
1. more than usual?	32.4	97
2. same as usual?	24.7	74
3. less than usual?	42.8	128
4. doesn't know		0
TOTAL	100.0	299

42. At the delivery of (Name of child), who tied and cut the cord? (n=300)

	%	N
1. yourself	2.0	6
2. family member	29.3	88
3. traditional birth attendant	38.0	114
4. health professional (physician, nurse or midwife)	28.7	86
5. other (specify) _____	0.7	2
6. doesn't know	1.3	4
TOTAL	100.0	300

HIV/STDs

43. Please indicate the way(s) HIV/AIDS can be transmitted to a person. (Multiple answers possible; record all answers.) (N=300)

	%	N
a. shaking hands	2.0	6
b. sharing clothing or towels	5.3	16
c. from an infected mother to her child	9.7	29
d. sharing blood contaminated razors/needles	46.3	139
e. mosquitoes	2.0	6
f. evil spirits		0
g. eating contaminated foods	2.0	6
h. kissing	3.0	9
I. sexual transmission	58.7	176
j. other (specify) _____	16.3	49

44. Please list all the ways AIDS can be prevented. (Multiple answers possible; record all answers.) (n=300)

	%	N
a. abstinence	29.0	87
b. use of condoms	23.0	69
c. avoiding unscreened blood transfusions	3.3	10
d. mutual fidelity between uninfected partners	11.4	34
e. avoiding use of unsterilized needles/razors	30.0	90
f. other (specify) _____	49.5	148

Gardening

45. Do you have a kitchen garden? (n=294)

	%	N
1. yes	69.4	204
2. no ----> go to 48	30.6	90
TOTAL	100.0	294

46. If yes, what type of plants do you grow? (Multiple answers possible; record all answers.) (n=204)

	%	N
a. green leafy vegetables (spinach, collard greens, etc.)	62.7	128
b. yellow vegetables (pumpkins, carrots, etc.)	34.9	74
c. legumes (beans, peanuts, etc.)	14.2	30
d. other (specify) _____	58.8	120

47. What do you do with your harvest from your garden? (n=204)

	%	N
1. consume most of it	20.6	42
2. sell most of it	3.4	7
3. consume half and sell the other half	75.0	153
4. other (specify) _____	1.0	2
TOTAL	100.0	204

48. If no garden, why not? (Multiple answers possible; record all answers.) (n=92)

	%	N
a. no land	35.9	33
b. no time	2.2	2
c. no need	3.3	3
d. no water	54.3	50
e. no seed	4.3	4
f. no knowledge	3.3	3
g. other (specify) _____	15.1	14

49. Do you want to have a kitchen garden? (n=92)

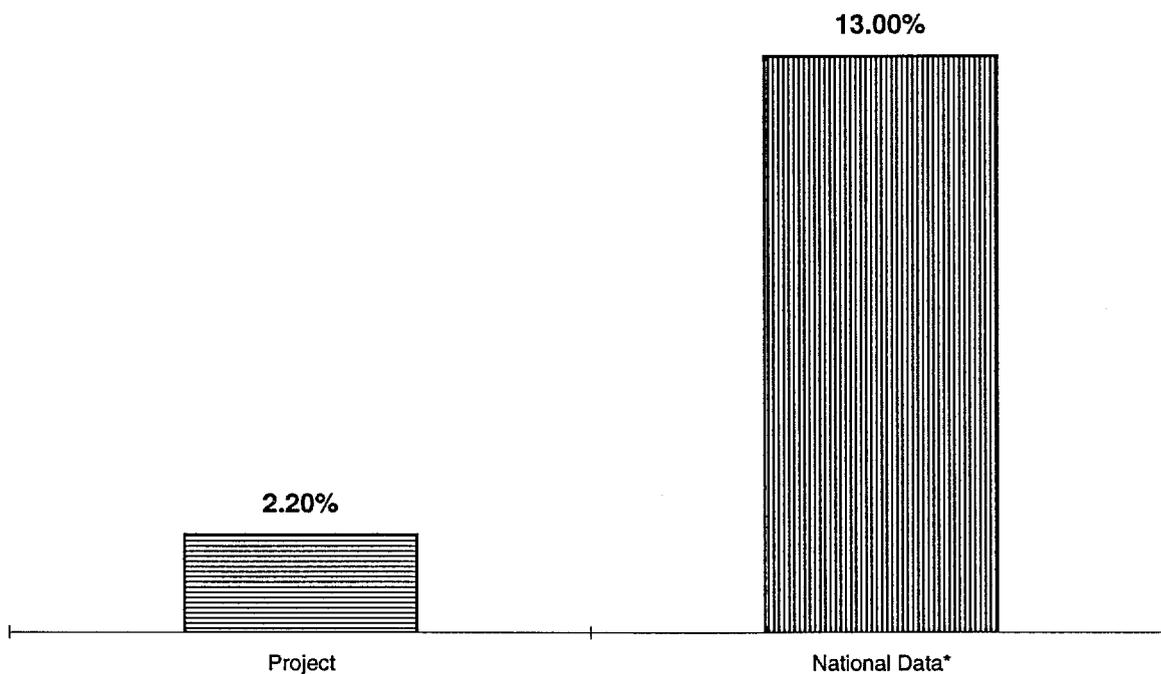
	%	N
1. yes	95.7	88
2. no	4.3	4
TOTAL	100.0	92

Appendix B Graphs

Indicator: Percent of infants <4 months who are being given only breast milk.

Project	National Data*
2.20%	13.00%

Exclusive Breast Feeding

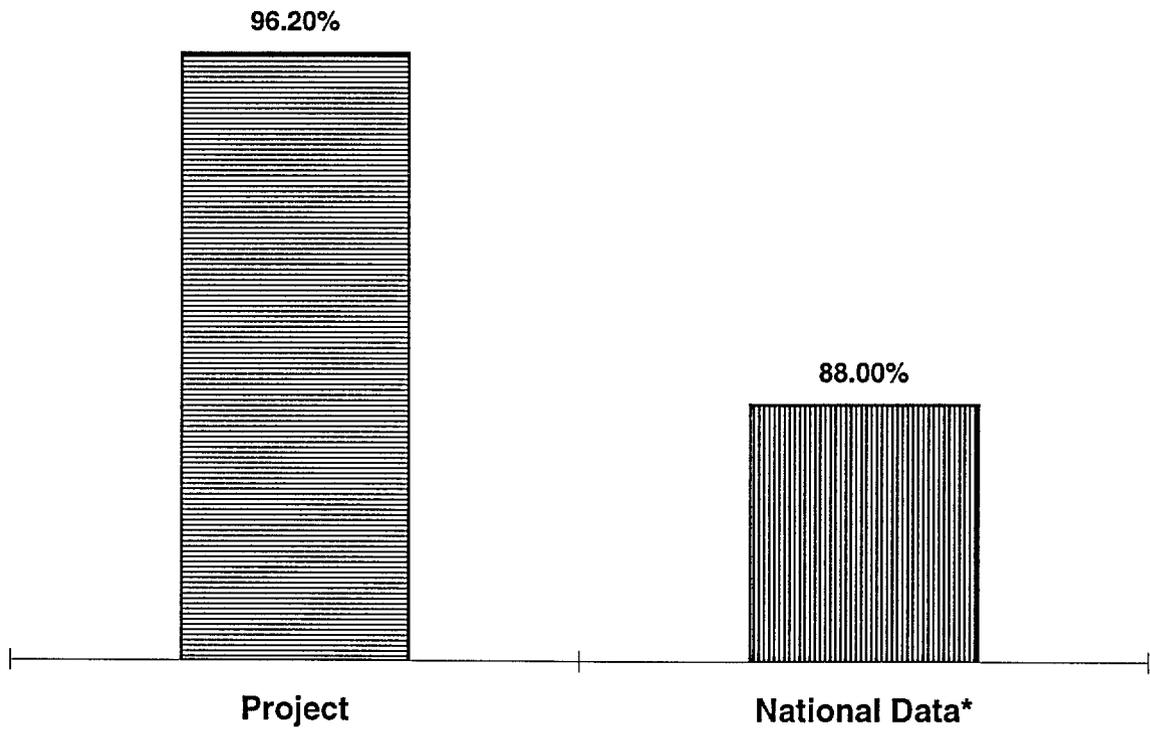


**State of the Worlds Children, UNICEF 1996*

Indicator: Percent of infants between 5-9 months who are being given solid or semi-solid foods.

Project	National Data*
96.20%	88.00%

Introduction of Foods

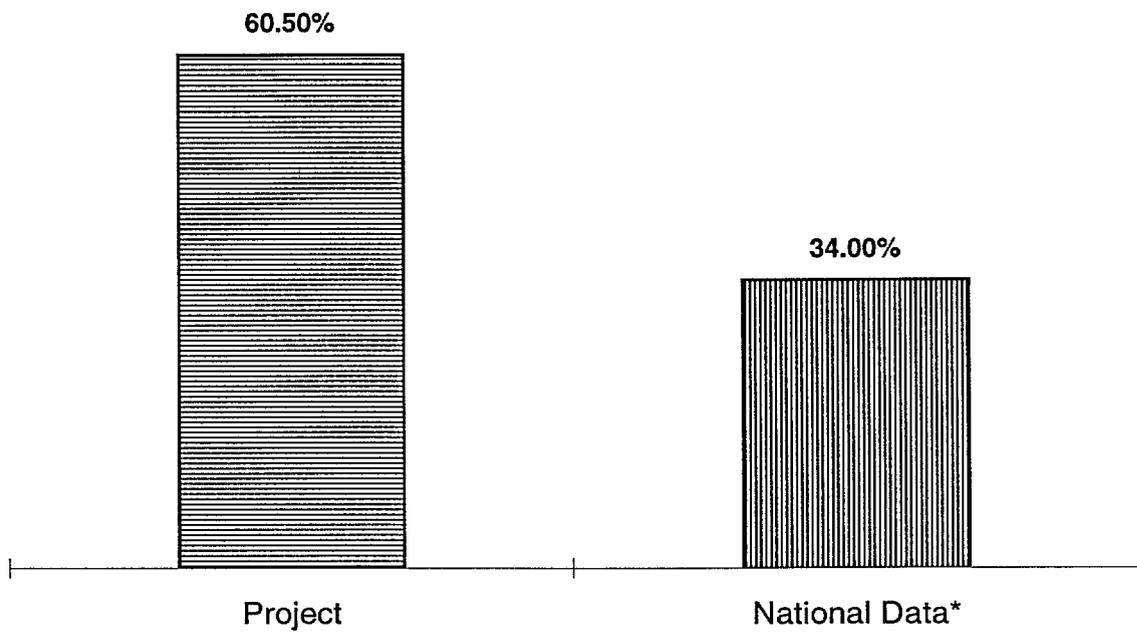


*State of the Worlds Children, UNICEF 1996

Indicator: Percent of children between 20-24 months who are still breast feeding and being given solid/semi-solid foods.

Project	National Data*
60.50%	34.00%

Persistence of Breast Feeding

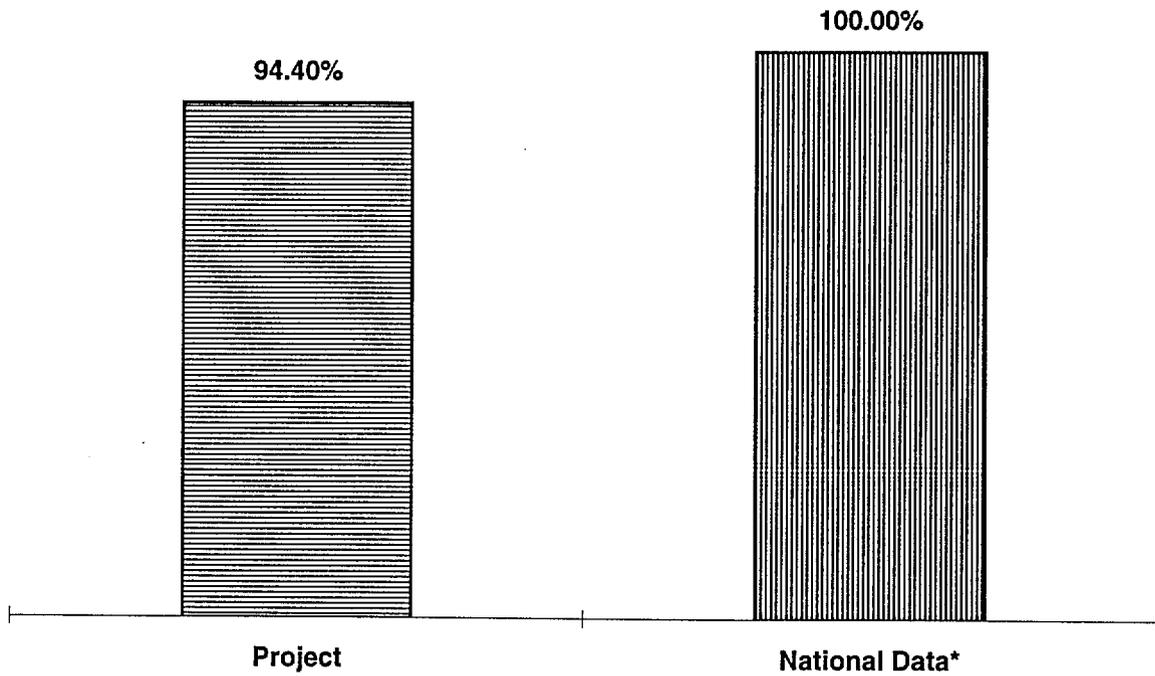


*State of the Worlds Children, UNICEF 1996

Indicator: Percent of children 12-23 months who received BCG vaccine.

Project	National Data*
94.40%	100.00%

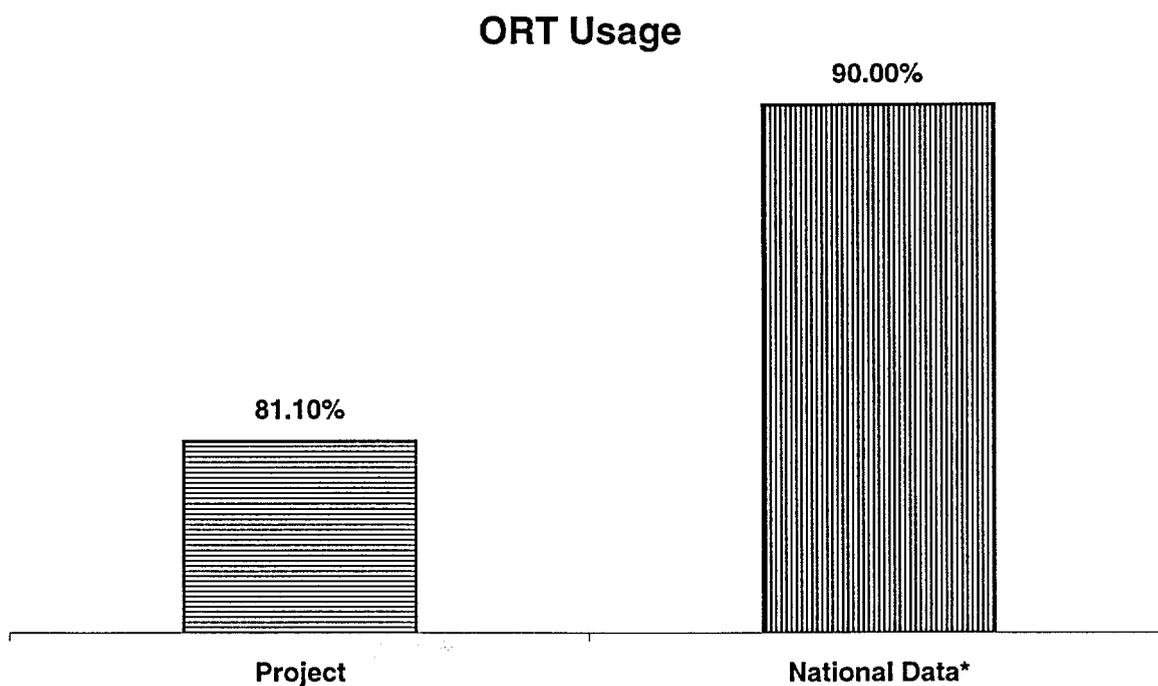
BCG Coverage (Card)



*State of the Worlds Children, UNICEF 1996

Indicator: Percent of infant/children < than 24 months with diarrhea in the past two weeks who were treated with ORT.

Project	National Data*
81.10%	90.00%

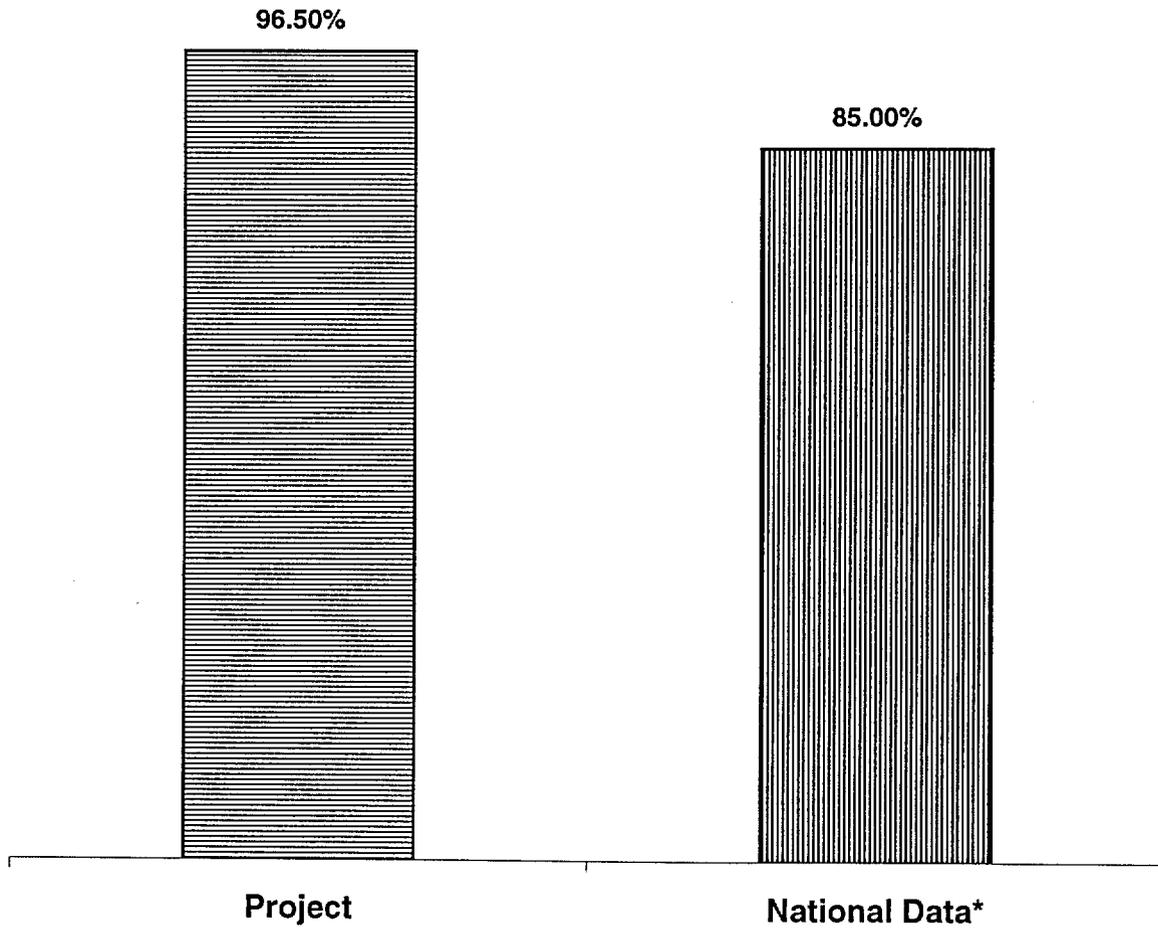


*State of the Worlds Children, UNICEF 1996

Indicator: Percent of children 12-23 months who received DPT1.

Project	National Data*
96.50%	85.00%

EPI Access (Card)

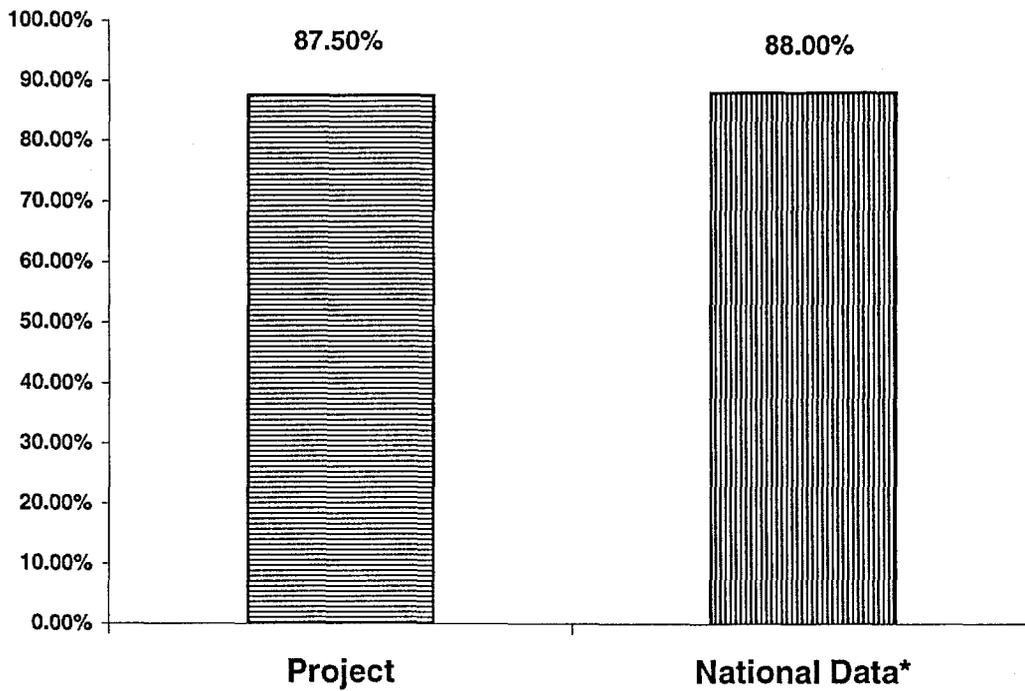


**State of the Worlds Children, UNICEF 1996*

Indicator: Percent of children 12-23 months who received OPV 3.

Project	National Data*
87.50%	88.00%

EPI Coverage (Card)

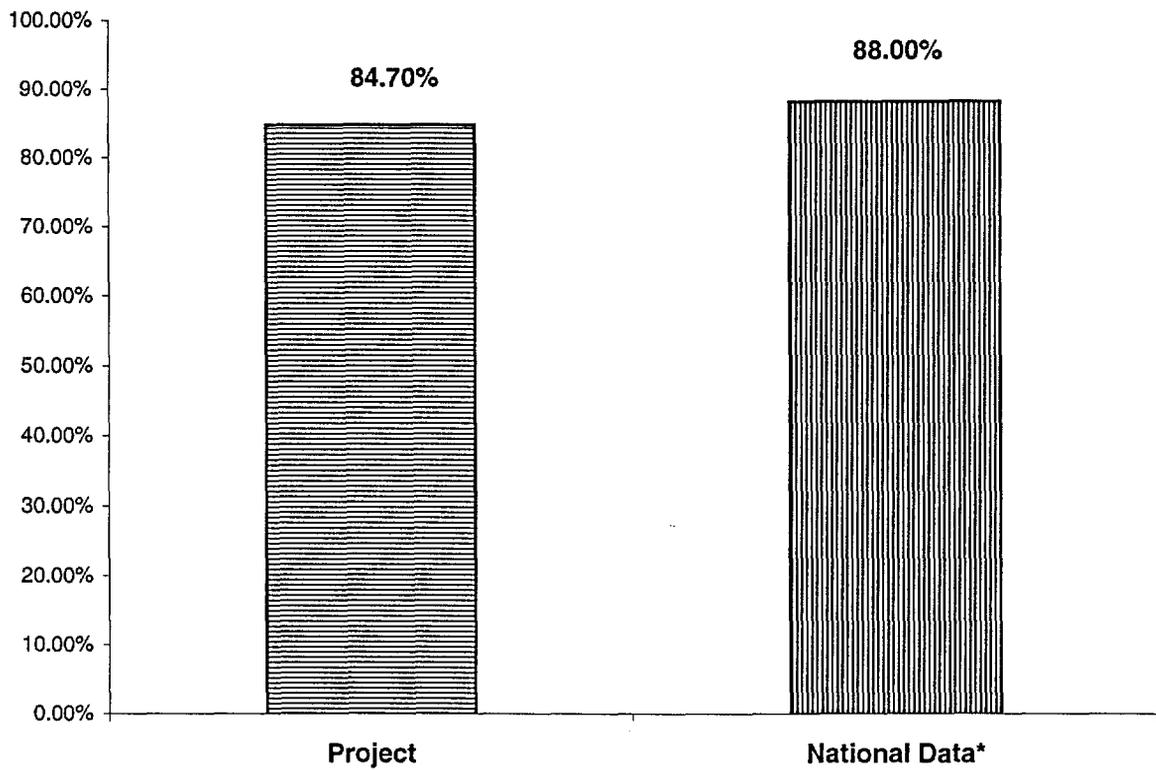


*State of the Worlds Children, UNICEF 1996

Indicator: Percent of children 12-23 months who received measles vaccine.

Project	National Data*
84.70%	88.00%

Measles Coverage (Card)

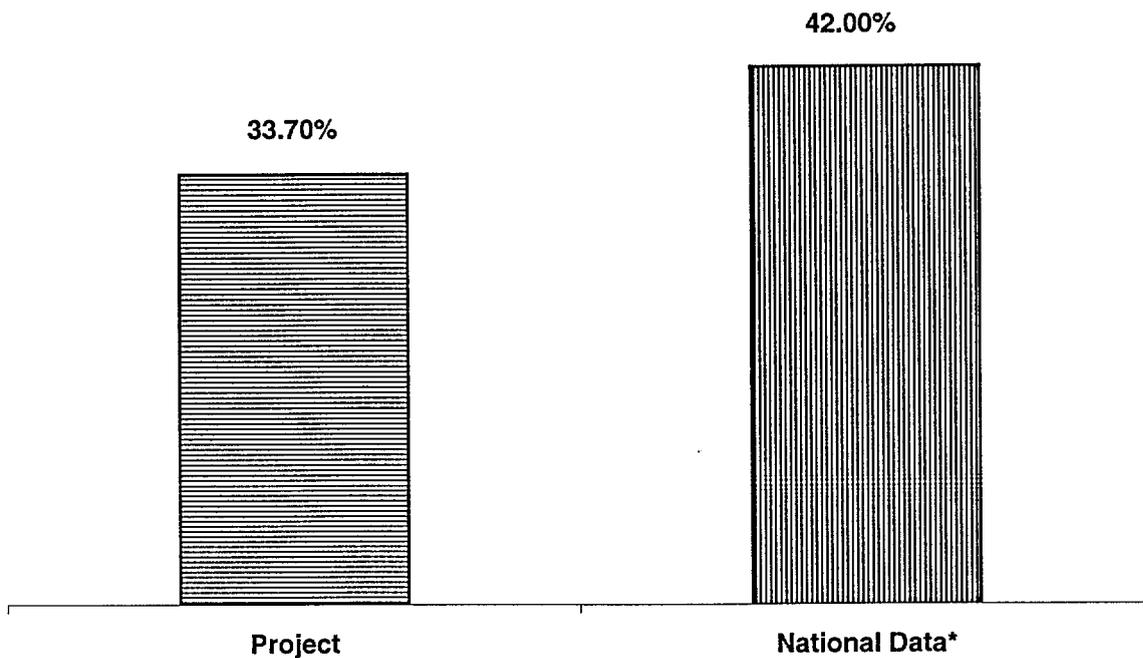


*State of the Worlds Children, UNICEF 1996

Indicator: Percent of mothers who received 2 doses of TT vaccine (card).

Project	National Data*
33.70%	42.00%

TT Coverage (Card)

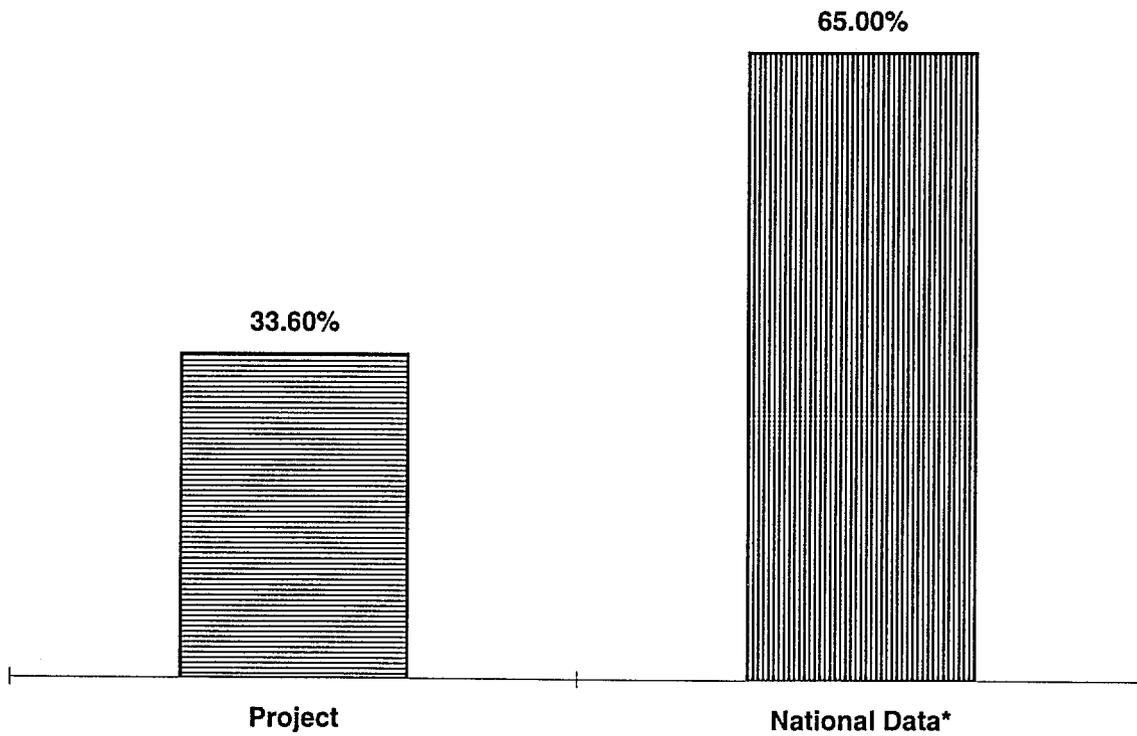


**State of the Worlds Children, UNICEF 1996*

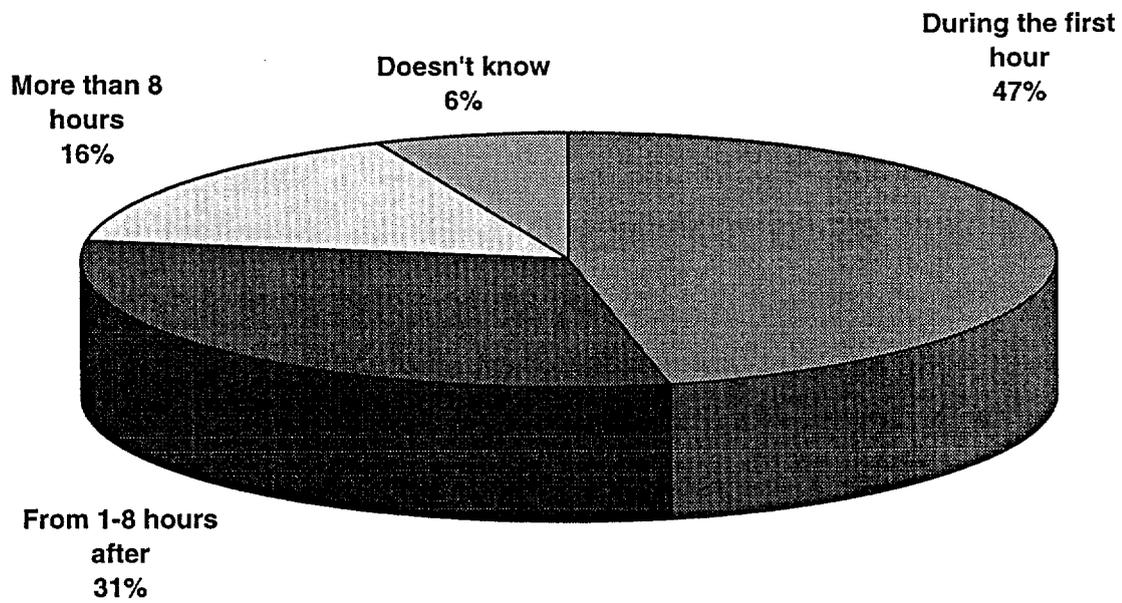
Indicator: Percent of mothers who are literate.

Project	National Data*
33.60%	65.00%

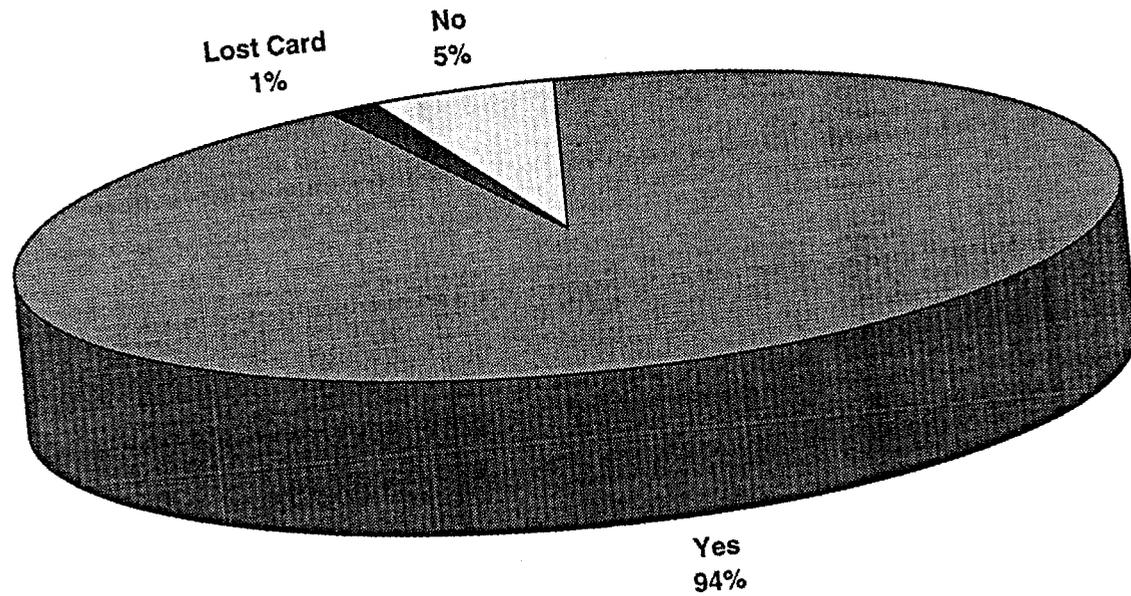
Mothers' Literacy Rate



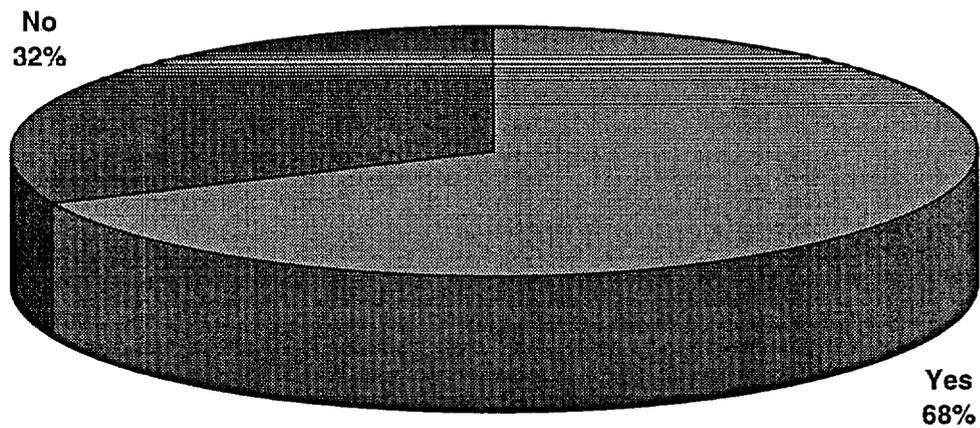
After delivery, how soon was the baby breast-fed



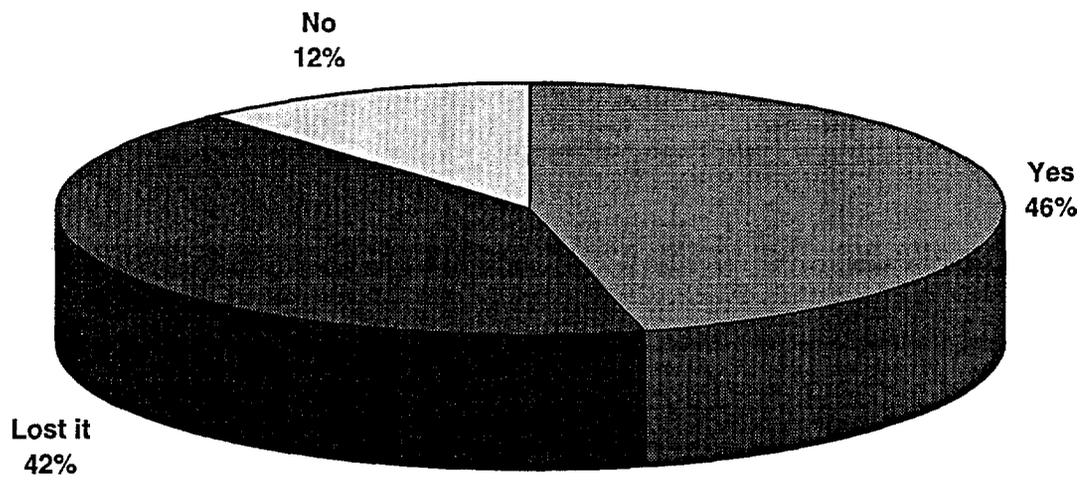
Does your child have a growth monitoring card?



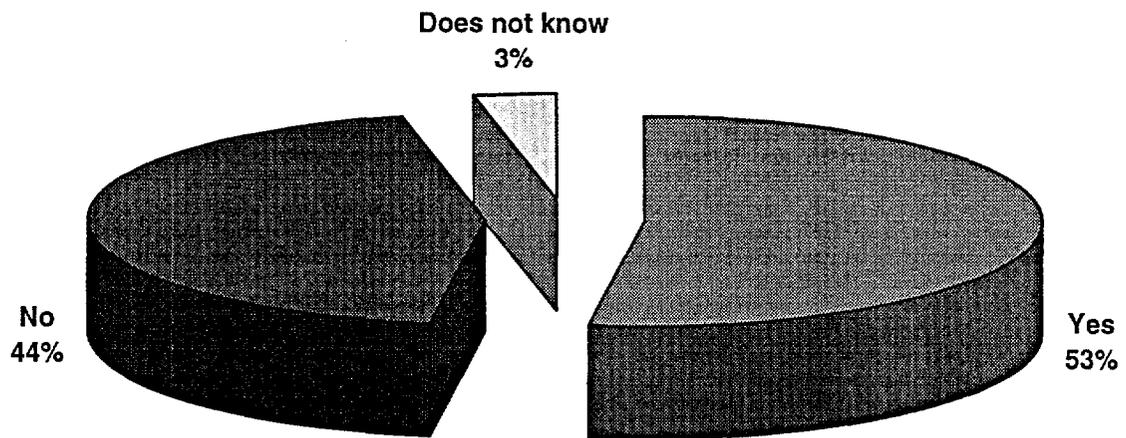
Percentage of children with GM cards who have been weighed in the last 4 months



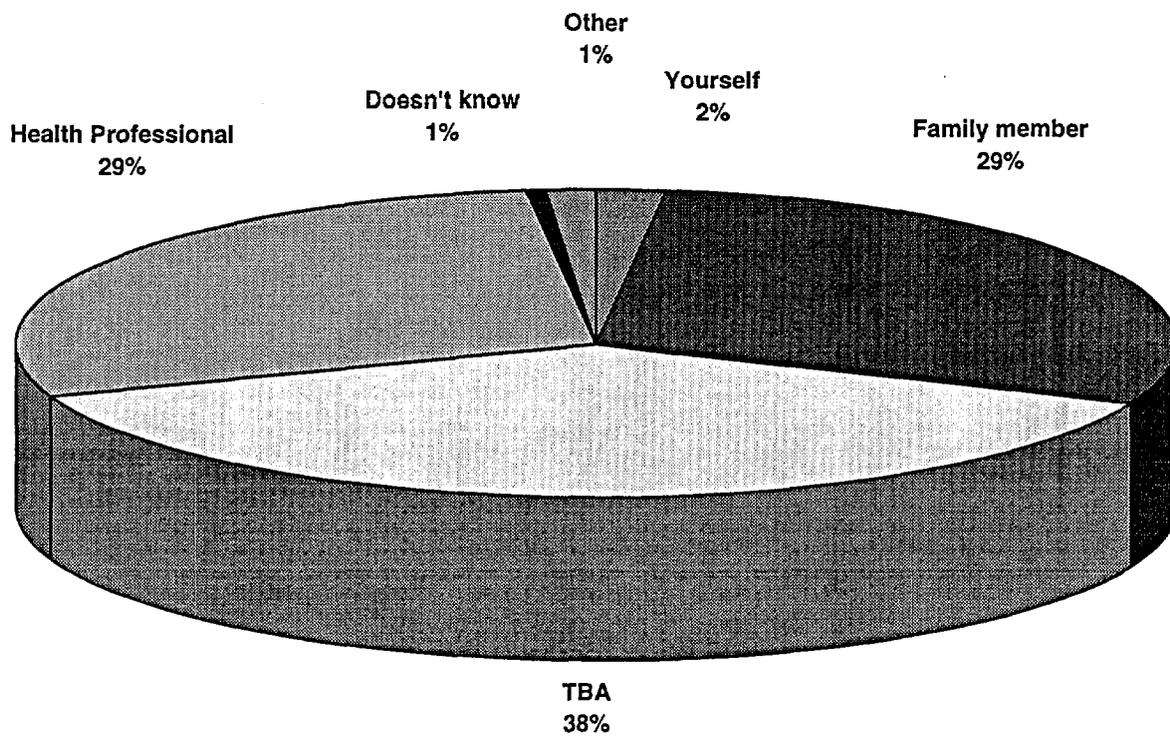
Do you have a maternal health card?



Do you want a child in the next two years?



A the delivery of your last child, who cut and tied the cord?



Appendix C Survey Staff

Supervisors

Nelson Maluga	Evaluator ADRA/Malawi Assistant Trainer
Petty Nyirenda (Mrs.)	Chipata District Ministry of Health, Information Officer
Ireen Mwenitete (Mrs.)	MCH Coordinator, Mwami Hospital Family Health Nurse
Dorah Chilembo (Mrs.)	Chadiza District Family Health Nurse MCH Coordinator
Victoria Daaku (Mrs.)	Trainer, Survey Field Coordinator Program Coordinator ADRA/Ghana

Interviewers

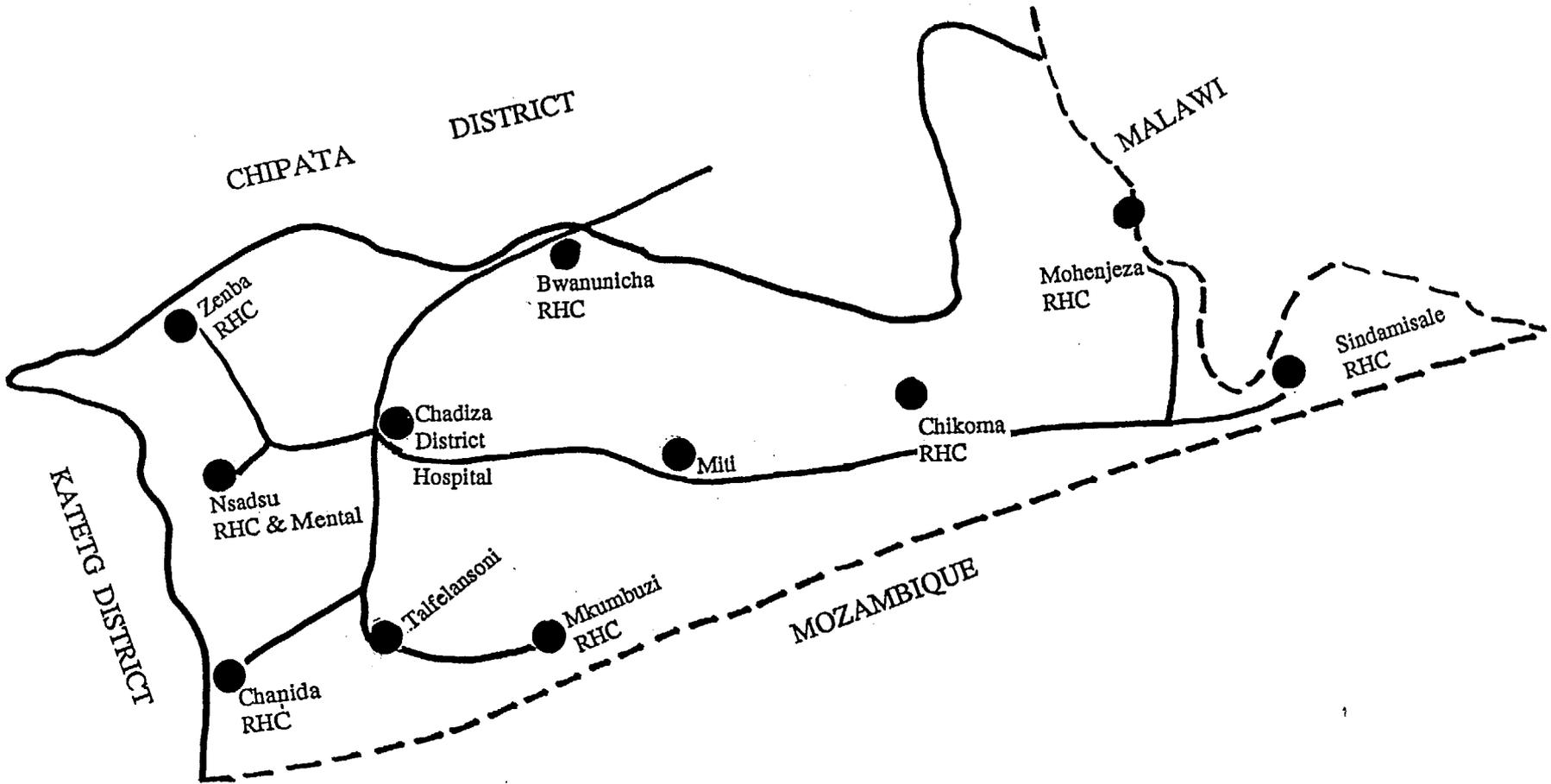
Masamu Hilary	Nkholongo Romano
Phiri Matthews	Chizyuka Miyoba
Florence Banda	Simon Luonde
Elizabeth Daka	Phiri Msanide Banda
Ndovi Binah	Andrew Banda

Appendix D Schedule of Activities in Zambia

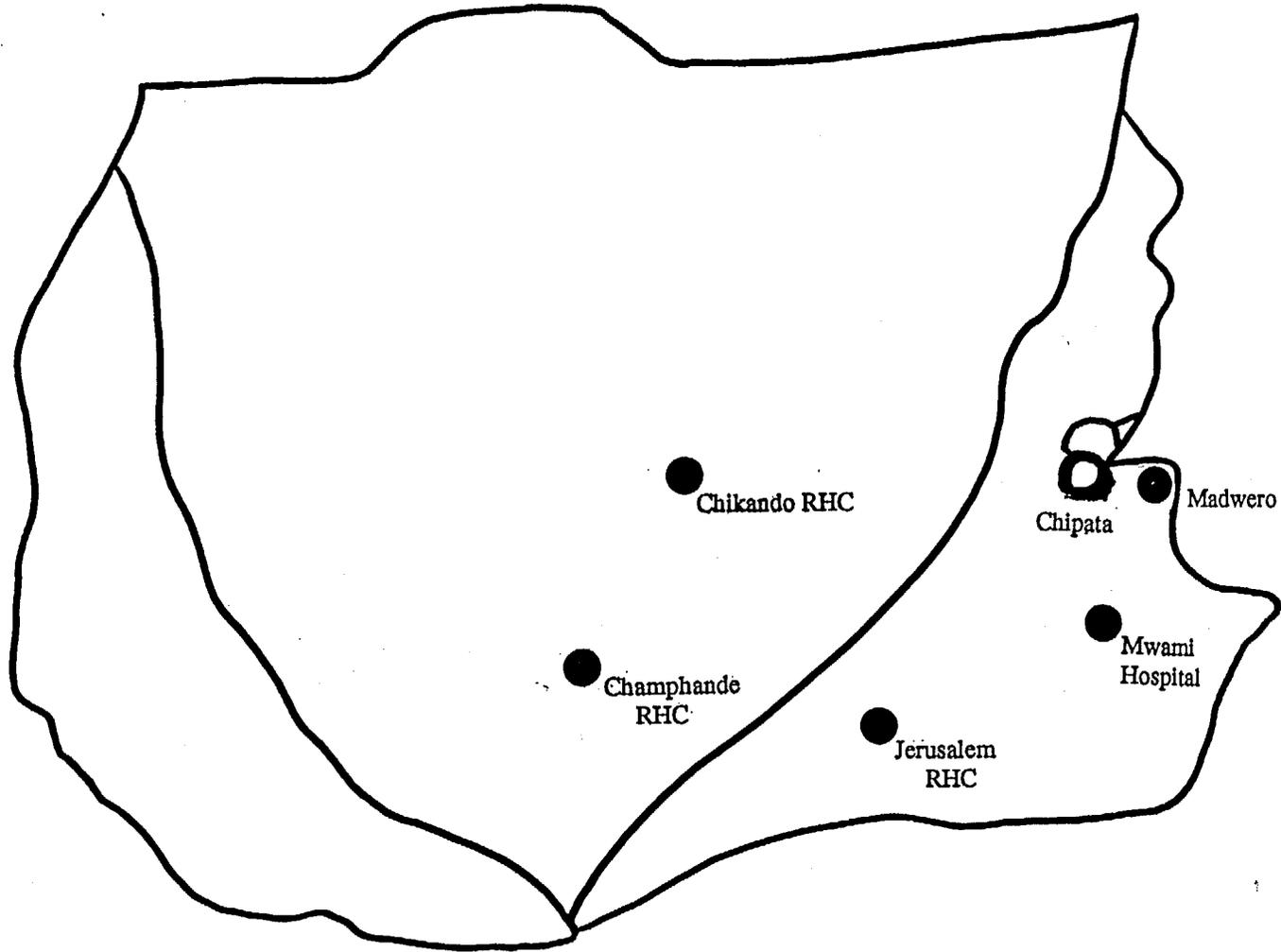
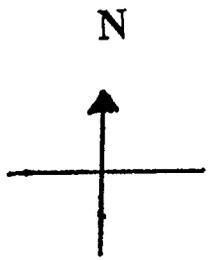
Period	Activity
Nov 20-25, 1995	Collection of population data for selection of clusters and translation
Nov 27-30, 1995	Training supervisors
Dec 1, 1995	Interviewers informing villagers
Dec 5-9, 1995	Data collection
Dec 11 - 12, 1995	Preparation for analysis and data entry

Appendix E Map of Project Location

Chadiza District Ministry of Health Locations of Rural Health Centre



South Chadiza District Mwami Catchment Area



Appendix F Nyanja Questionnaire and English Questionnaire

63

PVO Child Survival Rapid Knowledge, Practice & Coverage (KPC) Survey

Mafutso onse ayakhidwe ndi mai alindi mwana wochepele zaka ziwiri:

Tsiku lolakulilana: _____/_____/_____/95

Dzina wofutsa: _____

Woyang'anile: _____

Kudzi: _____

1. Dzina ndi zaka za mai

Dzina _____ Zaka _____

2. Dzina ndi miyezi ye mwana wochepele zaka ziwiri

Dzina _____

Tsiku lakubadwa _____/_____/_____ Miyezi _____

3. Kapudzilo/Ntchito ya mai

Anapudzila bwanji?

- 1. Alibe ()
- 2. Kapudzilo oyamba saziwa kuweringa ()
- 3. Oyamba aziwa kuweringa ()
- 4. Secondary/College ()

4. Kodi mukuchita ntchito yoweletsa ndalama?
(Mayankho onse ndikulemba)

- a. Sagwira ntchito ()
- b. Zopangapanga ndi magu ()
- c. Akolola, atola zipatso ()
- d. Agulitsa mbeu zamunda ()
- e. Agulitsa zakudya, agulitsa mukako ()
- f. Agwira ntchito kumunthu ()
- g. Agulisa musitolo, agulitsa mumisev ()
- h. Alandila ndalare pamwazi ()
- i. Zina (Kambani) ()

5. Kodi muli kuyawutse (Dzina la mwana)?

- 1. Inde () ----- pitani ku futso 7
- 2. Yai ()

6. Kodi munayawutseko (Dzina la mwana)?

- 1. Inde ()
- 2. Yai () ----- pitani futso 8

7. Kodi mutschila, munyenbe liti kuyamwitsa (Dzina la mwana) koyamba?
1. Ola loyamba mutschila ()
 2. Patapite msola limodzi kufika asanu ndi yotatu (I - 8) .. ()
 3. Kupita pa msola asanu ndi otatu ()
 4. Sakumbukila ()
8. a. Kodi mulikupatsa (Dzina la mwana) sadzi (ka ana wazani ngati tii)?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- b. Kodi mulikupatsa (Dzina la mwana) mukaka weng'ombe, wa mbuzi kapena wakusitolo?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- c. Kodi mulikupatsa (Dzina la mwana) zakudya zolibe monga pala?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- d. Kodi mulikupatsa (Dzina la mwana) zipatso?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- e. Kodi muli kupatsa (Dzina la mwana) karoti, masofi, kapena papaya?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- f. Kodi muli kupatsa (Dzina la mwana) ndiyo zamasalba yobiliwira monga mupilu?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- g. Kodi muli kupatsa (Dzina la mwana) nyama kapena somba?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- h. Kodi muli kupatsa (Dzina la mwana) kayela, soye kapena shawa?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()

- i. Kodi muli kupatsa (Dzina la mwana) mazila kapena mukaka wosasa?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- J. Kodi muliku sakaniza ndiwo samasamba, monga mupilu kwa (Dzina la mwana) chakudya?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- K. Kodi muikako uchi kapena shuga kwa (Dzina la mwana) chakudya chake?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- l. Kodi muikako mafuta kuchakudya cha (Dzina la mwana)?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
- m. Kodi muikako chidulo (Dzina) kuchakudya cha (Dzina la mwana)?
1. Inde ()
 2. Yai ()
 3. Sadziwa ()
9. Mai achitsinji kodi mumiyezi inai yamoyo wanwana wace pitiliza kuyamwitsa? (Mayankho yosiyana onse ndikulemba)
- a. Sadziwa ()
 - b. Kuyamwitsa tango chila posachedwa (wosachotsa mukaka woyamba) ()
 - c. Kusamalila mawele ()
 - d. Kuyamwitsa kawiri-kawiri kuti mukaka uchoke wambiri ()
 - e. Kuyamwitsa miyezi inai woyamba kulibe zakudya zina ()
 - f. Lekani kugwiritsila ntchito botolo yanukaka ()
 - g. Kuyamba kuyamwitsaso (Ngati an: lekez, mai a ngayabetso) ()
 - h. Zina (Chulani) _____ ()
10. Kodi mai ayamba liti kusekaniza zakudya ku mukaka wakumawele?
1. Kuyamba sanakwanitse miyezi inai ()
 2. Kuyamba pakati pa 4-6 miyezi yakubwera ()
 3. Kuyamba miyezi isanu ndi chimodzi ()
 4. Kuyamba patapitako miyezi isanu ndi umodzi ()
 5. Sadziwa ()

- II. Kodi (Dzina la mwana) ali nacho chipepala chaku chipimo?
- | | | |
|--------------------|-----|------|
| 1. Inde | () | |
| 2. Chinasowa | () | → 13 |
| 3. Yai | () | → 13 |
- I2. Yang'anani chipepala chakusikelo camwana ndikulemba izi:
Kodi mwana anakwela sikelo mumiyezi inai ya pitayi?
- | | |
|---------------|-----|
| 1. Inde | () |
| 2. Yai | () |
- I3. Matenda yothulula mumimba kodi (Dzina la mwana) alikuthulura kodi masabata awiri apitawa?
- | | |
|------------------|-----|
| 1. Inde | () |
| 2. Yai | () |
| 3. Sadziwa | () |
- I4. Kodi (Dzina la mwana) anali kuyamwa pomwe ali kuthulura?
(werengani zisakho I-4 kwa mai)
- | | |
|-------------------------------|-----|
| 1. Kupitilila kale | () |
| 2. Monga kale | () |
| 3. Kucepelela kale | () |
| 4. Kulekelatu | () |
| 5. Kuyamwa mukaka wokha | () |
- I5. Kodi pamene (Dzina la mwana) analikuthulula kodi munapitiliza kumupatsa zakudya zolimba? (werengani zisakho I-4 kwa mai)
- | | |
|-------------------------------|-----|
| 1. Kupitilila kale | () |
| 2. Monga kale | () |
| 3. Kucepelela kale | () |
| 4. Kulekelatu | () |
| 5. Kuyamwa mukaka wokha | () |
- I6. Kodi pamene (Dzina la mwana) analikuthulula kodi munapatsa (Dzina la mwana) zakumwa zina osati mukaka yakumawele?
- | | |
|-------------------------------|-----|
| 1. Kupitilila kale | () |
| 2. Monga kale | () |
| 3. Kucepelela kale | () |
| 4. Kulekelatu | () |
| 5. Kuyamwa mukaka wokha | () |
- I7. Kodi pamene (Dzina la mwana) alikuthulula mankwala yanji, ngati alipo, kodi munapatsa? (Mayankho onse lembani)
- | | |
|--|-----|
| a. Kulibe | () |
| b. Madzi yamoyo | () |
| c. Madzi yamoyo (opangidwa kumudzi) | () |
| d. Madzi yachoka kuphunga chimanga ndizina | () |
| e. Zakumwa zina zopezeka kunyumba | () |
| f. Mankwala a mumimba | () |
| g. Zina (chulani) | () |
- I8. Pamene (Dzina la mwana) analikuthulula, kodi munafunsa thandizo kapena mankwala ya mimba?
- | | |
|---------------|------------------|
| 1. Inde | () |
| 2. Yai | () Pitani ku 20 |

19. Munafunsa kwandani langizo kapena mankwala pa matenda otulula a
(Dzina la mwana)?
(Mayankho oyembekezeka, lembani yankho lililonse)
- a. Kuchipatala cha chikulu ()
 - b. Ku malo a za umoyo (wa thanzi) ()
 - c. Ku chipatalachaching'ono/kwa sing'anga ()
 - d. Kumalo otengela mankwala..... ()
 - e. Kwa ogwira ntchito zanthanzi m'mudzi ()
 - f. Kwa ociritsa wa cikuda ()
 - g. Kwa anawino ()
 - h. Abale ndi a bwenzi ()
 - i. Kwina kwace (Tsimikizani) _____ ()
20. Ndi zizindikiro kapena zooneka zotani zimene mungafune nazo malangizo kapena mankwala pa matenda a (Dzina la mwana) otulula?
(Mayankho oyembekezeka; lembani mayankho onse)
- a. Sindidziwa ()
 - b. Kusanza ()
 - c. Kuphya thupi ()
 - d. M'kamwa mouma, maso olowa, liombo lolowa, kusakodza kawiri-kawiri - (Kuchepa kwa madzi m'thupi) ()
 - e. Kutulule kwa nthawi yaitali (Kokwana milungu iwiri) ()
 - f. Magazi ku chimbudzi ()
 - g. Kusafuna kudywa ()
 - h. Ku fooka kapena kutopa ()
 - i. Zina zace (Tsimikizani) _____ ()
21. Kodi nizofunikila zotani zimene lungacite ngati (Dzina la mwana) ali kuthulula?
(Mayankho oyembekezeka; lembani mayankho onse).
- a. Sindidziwa ()
 - b. Kumupatsa madzi kawiri kawiri ()
 - c. Kumupatsa mwana madzi ambiri kuposa thawi zonse ()
 - d. Kupatsa mwana zakudya zing'ono kawiri kawiri ()
 - e. Kusekenidza bwino ndi kumupatsa madzi a moyo ()
 - f. Kuyeleka mwana ku chipatala/chipatala cing'ono ()
 - g. Kumudyetsa kwambiri pambuyo pa ku thulula kuti a bweze thupi .. ()
 - h. Kuimika za kumwa ()
 - i. Kuimika za kudywa ()
 - j. Zina zace (Tsimikizani) _____ ()
22. Kodi ndi zofunikila zotani zimene mudzimai angacite ngati mwana wayamba kucila ndi matenda akuthulula. (Mayankho oyembekezeka; Lembani mayankho onse)
- a. Sindidziwa ()
 - b. Ku patsa mwana zakudya zing'ono zing'ono kawiri kawiri ()
 - c. Zakudya zambiri kupatsanthawi zonse ()
 - d. Kupatsa za kudywa zomanga thupi zambiri ()
 - e. Zina zace (Tsimikizani) _____ ()

23. Kodi (Dzina la mwana) analandileko katemela aliyense?
1. Inde ()
 2. Ayi ()
 3. Sindidziwa ()
24. Kodi ndipo waka zingati pamene (Dzina la mwana) angathe kulandila katemela wa kankhuku?
1. Tsimikizani mu nyedzi ()
 2. Sindidziwa ()
25. Kodi mungapatse cholinga cacikulu cimene adzimai ali ndipakati epatsiwire katemela wa kafumbata.
1. Kucinjilidza onse nai/mwana wekhanda ku Kafumbata ()
 2. Kucinjilidza nai yeka ku kafumbata ()
 3. Kucinjilidza mwana wekhanda yeka ku kafumbata ()
 4. Sindidziwa kagena zina zake ()
26. Kodi ndi siyano zingati za katemela wa kafumbata zimene mudzimai wapakati ayenera kulandila kuti acinjilidze mwana wake ku kafumbata?
1. Imodzi ()
 2. Ziwiri ()
 3. Kupotsa ziwiri ()
 4. Palibe ()
 5. Sindidziwa ()
27. Kodi muli naco citupa cakatemela?
1. Inde (Onani citupa) ()
 2. Cinasowa (Pitani ku funso 29 .. ()
 3. Ndikalibe kukhalapo ndi cimodzi chomwe . (Pitani ku funso 29 . ()
28. Yangansni pa citupa cakatemela ndipo lembani matsiku onse skatemela
- BCG ----/---/---
- OPV Ist ---/---/---
- 2nd ---/---/---
- 3rd ---/---/---
- DPT Ist ---/---/---
- 2nd ---/---/---
- 3rd ---/---/---
- Kankhuku ---/---/---

CISAMALILO CA ADZIMAI

29. Kodi muli naco citupa ca cisamalilo ca adzimai?
1. Inde (Onani citupa) ()
 2. Cinasowa (Pitani ku funso 33) ()
 3. Ayi (Pitani ku funso 33) ()

30. Yanganani pa citupa ca cisamalilo ca adzimai ndipo lembani nambala la singano za citetedzo ca kafumbata.
1. Imodzi ()
 2. Ziwiri kapena kupotsapo ()
 3. Palibe ndi imodzi ()
31. Kodi citupa cilinayo malo olembapo za maulendo a mudzimai wapakati?
1. Inde ()
 2. Ayi () (Pitani ku funso 33)
32. Ngati, inde, lembani kapena mudzimai ane pangapo ulendo wa cisamalilo ca mudzimai wapakati?
1. Kamodzi ()
 2. Kawiri kapena kuposapo ()
 3. Palibe ndikamodzi komwe ()
33. Kodi muli ndipakati tsopano?
1. Inde () Pitani ku funso 37
 2. Ayi ()
34. Kodi mufuna kukhala ndi mwanamu zaka ziwiri zikubwela?
1. Inde () Pitani ku funso 37
 2. Ayi ()
 3. Sindidziwa ()
35. Kodi ndani inu/kapena amuna anu amene asowezetsa njira za cilodzi kuti musakhale ndi pakati?
1. Inde ()
 2. Ayi () Pitani kufunso 37
36. Kodi ndi njira iti imene inu kapena amuna anu alikusewenzetsa kuti musakhale ndi pakati palipano?
1. Kumangitsa cibalilo ()
 2. Kuthenetsa ()
 3. ()
 4. Kulandila singano ()
 5. Napilisi ()
 6. IUD ()
 7. Kutseka njira ()
 8. Condom/kapila ka a muna ()
 9. Mafuta kepanakilimu yofaka mu mkazi ()
 10. Kuyamwitsa mwana mosalekedza ()
 11. Ku dziwa kapena ku konkha masiku amene mai amasamba ()
 12. Kusa khala malo amodzi ()
 13. kufaka mwana ku mphatsa ()
 14. Zina zace ()
37. Kodi niliti pamene mudzimai wapakati angathe kuonana ndi sing'anga, a lezi, a namuna koyamba?
1. Pa myezi 1 - 3 ()
 2. Pa kati pamamba - myezi 4 - 6 ()
 3. Kufupi ndi kubala 7 - 9 myezi ()
 4. Palibe ndifukwa coonuna nawo ()
 5. Sindidziwa ()

38. Nzakudya zotani zimene mudzizani wapakati amadya zo onjezera mapazi kapena mwadzi?
- Sindidziwa ()
 - Koranga thupi zimene zionjezera gazi (Nyana, mandanda, nsomba) ()
 - Zamatumba zimene zili ndizoonjezera gazi ()
 - Zina zace (Tsitikizani) _____ ()
39. Pamene Mzinai ali ndi pakati, ayenera kulezela makilo angati pasikelo kusiyana ndi makilo yomwe amalemela pomwe alibe pakati?
- 8 - 10 makilo ()
 - Kulingana ndi kulezela kwa mwana wakhandu ()
 - Sidzikudzindikilika bwino ()
 - Zina ndi zina (Nenani nsongoyene yene) _____ ()
40. Pamene munali ndi pakati (ndi dzina la mwana), muna pitako kusikelo, kuchipimo kapena kwa a namwino chifukwa chapathuri, kapena chifukwa chakufuna kudindikila kasamalidwe ka pathupi?
- Inde ()
 - Ayi ()
41. Pamene munali ndi pakati (ndi dzina la mwana), munali kudya chakudya chochulukira bwanji? (Werengani ma yankho kwa amai)
- Chopyole pa muyezo oyenera ()
 - Cholingana ndi muyezo oyenera ()
 - Chocheperapo pa muyezo oyenera ()
 - Sidzikudzindikilika bwino ()
42. Panthawi yobeleka mwana (Dzina la mwana), adani anamanga ndikudula **nicombo**?
- Inuyo nokha ()
 - Acibale ()
 - Azimai ena akurudzi ()
 - Anarwino akuchipatala, a dotolo kapena a lezi ()
 - Zina ndizina (Nena nsongoyeni yeni) _____ ()
 - Sidzikudzindikilika bwino ()

KALIYONDEYONDE/NTENDA LOTANGULA NJIRA YA CHIWELEWELE

43. Conde onetsani njira yomwe matenda akaliyondeyonde angatergele muthu kapena ku patidwa. (Onani njira zarbiri, komwe munga kwanitse)
- Kupasana moni wachenza ()
 - Kubvalirana dzotvala kapena kugwiritse ntchito cogukutira chimodzi mtatha kusamba ()
 - Kuchokera kwamai odwala matenda aya kupita kurwana wake wakhandu ()
 - Kupyolela **nikugawirana** kwazi ndi kugwiritse ntchito kaleza ndi singano komwe dzina gwiritse kale ntchito ()
 - Kupyolera munjira yolumidwa ndi udzudzu ()
 - M'kugwidwa ndi mizimu yonyansa ()
 - Kupyolera m'kudya chakudya chosasamalidwa bwino ()
 - M'kupsoyosyonthane ()
 - Zina ndi zina (Nenani nsongoyene yene) _____ ()

44. Conde lembaninjira norwe matenda akaliyondeyonde agogwe tedwala. (0 ni njira zambiri)

- a. Kusiya kuchita ci-olewele ()
- b. Kugwiritse ntchito mipila yama koodomu ()
- c. Kusiya kulandira mwazi wosapikidwa ()
- d. M'khalidwe wokulupirirana pakati pa abwenzi omwe alibe kalombo kakaliyondeyonde ()
- e. Kuleka kugwilitse ntchito nsingano ndi maleze osapikidwa .. ()
- f. Zina ndi zina (Nenani nsonga yene yene) _____ ()

NTCHIRO YAMALIMBA AMADLEBA

45. Kodi muli ndi dimba lorwe mumatenga ndiyo na kunumbira kwenu?

- 1. Inde ()
- 2. Yai ----- Pitani pa nombala 48 ()

46. Ngati Inde, kodi mumelima ndiyo zotani?

- a. Ndiyo zamtsamba ansipu (spinach, collard greens etc) . ()
- b. Ndiyo zamtsamba scikasu (stanje, koloti, telemwemu)
- c. Ndiyo zomwe wopezeka nigulu lakayela (songa kayela m'mene, ndozi, ndizinazotele) ()
- d. Zina ndi zina (Nena nsonga yene yene) _____ ()

47. Ngati mwa kolola, mumacitanazo ciani sokolola?

- 1. Kudya gao lalikulu ()
- 2. Kugulitsapo gao lalikulu ()
- 3. Kudya gao limodzi ndi kugulitsa zina ()
- 4. Zina ndi zina (Nenani nsonga yene yene) _____ ()

48. Ngati kulibe dimba, chifukwa ndichani?

- a. Kusowa nthaka ()
- b. Kusowa nthawi ()
- c. Dimba ilibe yindu ()
- d. Kusowa kwa madzi ()
- e. Kusowa kwa mbau ()
- f. Kusowa kwa nzeru zolimira kapena kusamalira dimba ... ()
- g. Zina ndi zina (Nenani nsonga yene yene) _____ ... ()

49. Mukulakalaka kupata dimba yoti mmitengako ndiyo zakudya ku nyumba?

- 1. Inde ()
- 2. Iyai ()

PVO Child Survival Rapid Knowledge, Practice & Coverage (KPC) Survey

All questions are to be addressed to the mother with a child less than 24 months old

Interview date ___/___/95

Interviewer name _____

Supervisor _____

Village _____

1. Name and age of the mother

Name _____ Age (years) _____

2. Name and age of the child less than 24 months of age

Name _____

Birth date ___/___/___ Age in months _____

Mother's Education/Occupation

3. What was the highest educational level you attained?

- 1. none []
- 2. primary does not read []
- 3. primary reads. []
- 4. secondary & higher []

4. Do you do any "income generating work"?

(multiple answers possible; record all answers)

- a. nothing. []
- b. handicraft, weaving, rugs, etc []
- c. harvesting, fruit picker []
- d. selling agricultural products. []
- e. selling foods, dairy products. []
- f. servant/household services []
- g. shop keeper, street vendor []
- h. salaried worker. []
- I. other (specify) _____ []

Breastfeeding/Nutrition

5. Are you breastfeeding (name of child)?

- 1. yes. [] ---> go to 7
- 2. no. []

6. Have you ever breast-fed (name of child)?

- 1. yes. []
- 2. no. [] ---> go to 8

7. After the delivery, when did you breast-feed (name of child) for the first time?
1. during the first hour after delivery []
 2. from 1 to 8 hours after delivery []
 3. more than 8 hours after delivery []
 4. do not remember. []
8. a. Are you giving (name of child) water (or herbal teas)?
1. yes. []
 2. no []
 3. doesn't know []
- b. Are you giving (name of child) cow milk, goat milk, or formula?
1. yes []
 2. no. []
 3. doesn't know. []
- c. Are you giving (name of child) semisolid foods such as gruels/porridge?
1. yes []
 2. no. []
 3. doesn't know. []
- d. Are you giving (name of child) fruits?
1. yes []
 2. no. []
 3. doesn't know. []
- e. Are you giving (name of child) carrot, squash, mango or papaya?
1. yes []
 2. no. []
 3. doesn't know. []
- f. Are you giving (name of child) dark green leafy vegetables, such as spinach?
1. yes []
 2. no. []
 3. doesn't know. []
- g. Are you giving (name of child) meat or fish?
1. yes []
 2. no. []
 3. doesn't know. []
- h. Are you giving (name of child) lentils, peanuts, or beans?
1. yes []
 2. no. []
 3. doesn't know. []
- i. Are you giving (name of child) eggs or yogurt?
1. yes []
 2. no. []
 3. doesn't know. []

- j. Are you adding dark green leafy vegetables, such as spinach, to (name of child)'s food? 76.2
1. yes []
 2. no. []
 3. doesn't know. []
- k. Are you adding honey or sugar to (name of child)'s meals?
1. yes []
 2. no. []
 3. doesn't know. []
- l. Are you adding fat (lard) or oil to (name of child)'s meals?
1. yes []
 2. no. []
 3. doesn't know. []
- m. Are you adding iodized salt (local brand name) to (name of child)'s meals?
1. yes []
 2. no. []
 3. doesn't know. []
9. What can a mother do in the baby's first four months of life to keep on breastfeeding?
(multiple answers possible; record all answers)
- a. doesn't know. []
 - b. breastfeed as soon as possible after delivery
(don't discard colostrum). []
 - c. care of breasts, nipples. []
 - d. frequent sucking to stimulate production. []
 - e. exclusive breastfeeding during the first four months. . . . []
 - f. avoid bottle feeding of baby. []
 - g. relactation (if had to stop, mother can resume breastfeeding again)[]
 - h. other (specify) _____ []
10. When should a mother start adding foods to breastfeeding?
1. start adding earlier than 4 months of age []
 2. start adding between 4-6 months of age. []
 3. start adding about 6 months of age. []
 4. start adding later than 6 months of age []
 5. doesn't know. []

Growth Monitoring

11. Does (name of child) have a growth monitoring/promotion card?
1. yes. [] (must see card)
 2. lost card. [] ---> go to 13
 3. no. [] ---> go to 13
12. Look at the growth monitoring card of the child, and record the following information: has the child been weighed in the last four months?
1. yes []
 2. no []

12 b. on the growth monitoring card, is there a
 Space to record vitamin A?
 1. yes
 2. no

12 c. if yes record dates.
 1st 3rd
 2nd 4th

15

Diarrheal Diseases

13. Has (name of child) had diarrhea during the last two weeks?
1. yes. []
2. no. [] ---> go to 20
3. doesn't know [] ---> go to 20
14. During (name of child)'s diarrhea did you breast-feed
(read choices 1-4 to the mother)
1. more than usual? []
2. same as usual? []
3. less than usual? []
4. stopped completely? []
5. child not breastfed []
15. During (name of child)'s diarrhea, did you provide (name of child) with
fluids other than breast-milk
(read choices 1-4 to the mother)
1. more than usual? []
2. same as usual? []
3. less than usual? []
4. stopped completely? []
5. exclusively breastfeeding []
16. During (name of child)'s diarrhea, did you continue to provide (name of
child) with solid/semisolid foods
(read choices 1-4 to the mother)
1. more than usual? []
2. same as usual? []
3. less than usual? []
4. stopped completely? []
5. exclusively breastfeeding []
17. When (name of child) had diarrhea, what treatments, if any, did you use?
(multiple answers possible; record all answers)
a. nothing []
b. ORS sachet. []
c. sugar-salt solution []
d. cereal based ORT. []
e. infusions or other home available fluids. []
f. anti-diarrhea medicine or antibiotics []
g. other specify _____ []
18. When (name of child) had diarrhea, did you seek advice or treatment for the
diarrhea?
1. yes. []
2. no. [] ---> go to 20

19. FROM WHOM did you seek advice or treatment for the diarrhea of (name of child)?

(multiple answers possible; record each answer)

- a. general hospital. []
- b. health center/clinic/post []
- c. private clinic/doctor []
- d. pharmacy. []
- e. village health worker []
- f. traditional healer. []
- g. traditional birth attendant []
- h. relatives & friends []
- i. other (specify) _____ []

20. What signs/symptoms would cause you to seek advice or treatment for (name of the child)'s diarrhea?

(multiple answers possible; record all answers)

- a. doesn't know. []
- b. vomiting. []
- c. fever []
- d. dry mouth, sunken eyes, sunken fontanelle, decreased urine output (dehydration). []
- e. diarrhea of prolonged duration (at least 14 days). []
- f. blood in stool. []
- g. loss of appetite. []
- h. weakness or tiredness []
- i. other (specify) _____ []

21. What are important actions you should take if (name of child) has diarrhea? (multiple answers possible; record all answers)

- a. doesn't know []
- b. initiate fluids rapidly []
- c. give the child more to drink than usual []
- d. give the child smaller more frequent feeds. []
- e. proper mixing and administration of ORS []
- f. take child to the hospital/health center. []
- g. feed more after diarrhea episode so that child can re-gain weight []
- h. withhold fluids []
- i. with hold foods. []
- j. other (specify) _____ []

22. What are important actions a mother should take when a child is recovering from diarrhea?

(multiple answers possible; record all answers)

- a. doesn't know. []
- b. give the child smaller more frequent feeds. []
- c. more foods than usual []
- d. give foods with high caloric content. []
- e. other (specify) _____ []

Immunizations

23. Has (name of child) ever received any immunizations?

- 1. yes []
- 2. no []
- 3. doesn't know []

24. At what age should (name of child) be vaccinated?
 1. specify in months [_ / _]
 2. doesn't know. []
25. Can you tell me the main reason why pregnant women need to be vaccinated with tetanus toxoid vaccine?
 1. to protect both mother/newborn against tetanus []
 2. to protect only the woman against tetanus []
 3. to protect only the newborn against tetanus. []
 4. doesn't know or other. []
26. How many tetanus toxoid injections does a pregnant woman need to protect the newborn infant from tetanus?
 1. one []
 2. two []
 3. more than two []
 4. none. []
 5. doesn't know. []
27. Do you have an immunization card for (name of child)?
 1. yes [] (must see card)
 2. lost it [] -----> go to 29
 3. never had one [] -----> go to 29

28. Look at the vaccination card and record the dates of all the immunizations

BCG -- / -- / --

OPV 1st -- / -- / --
 2nd -- / -- / --
 3rd -- / -- / --

DPT 1st -- / -- / --
 2nd -- / -- / --
 3rd -- / -- / --

Measles -- / -- / --
 -- / -- / --

Maternal Care

29. Do you have a maternal health card?
 1. yes [] (must see card)
 2. lost it [] ----> go to 33
 3. no [] ----> go to 33
30. Look at the maternal health card and record the number of TT vaccinations in the space below:
 1. one []
 2. two or more []
 3. none []
31. Does the card have space to record ante-natal care visits?
 1. yes []
 2. no [] ----> go to 33

32. If, yes, record whether the mother ever made any urine tests:
1. one
 2. two or more
 3. none
33. Are you pregnant now?
1. yes. ---> go to 37
 2. no.
34. Do you want to have another child in the next two years?
1. yes. ---> go to 37
 2. no.
 3. doesn't know
35. Are you or your husband currently using any method to avoid/postpone getting pregnant?
1. yes.
 2. no ---> go to 37 80
36. What is the main method you or your husband are using now to avoid/postpone getting pregnant?
1. tubal ligation.
 2. vasectomy
 3. Norplant.
 4. injections.
 5. pill.
 6. IUD
 7. barrier method/diaphragm.
 8. condom.
 9. foam/gel.
 10. lactational amenorrhea method(exclusive breast-feeding)
 11. rhythm
 12. abstinence
 13. coitus interruptus
 14. other
37. When should a pregnant woman first see a health professional (physician, nurse, midwife, trained TBA)?
(probe for months)
1. first trimester, 1-3 months
 2. middle of pregnancy, 4-6 months
 3. last trimester, 7-9 months.
 4. no need to see health worker.
 5. doesn't know.
38. What foods are good for a pregnant woman to eat to prevent pregnancy anemia?
(multiple answers possible; record all answers)
- a. doesn't know.
 - b. proteins rich in iron (eggs, fish, meat).
 - c. leafy green vegetables, rich in iron.
 - d. other (specify) _____

39. How much weight should a woman gain during pregnancy?
1. 8-10 kilos []
 2. gain weight of baby []
 3. doesn't know. []
 4. other (specify) _____ []
40. When you were pregnant with (name of child) did you visit any health site (dispensary/health center, aid post) for pregnancy/prenatal care?
1. yes []
 2. no. []
41. When you were pregnant with (name of child) was the amount of food you ate? (read the choices to the mother)
1. more than usual? []
 2. same as usual? []
 3. less than usual? []
 4. doesn't know. []
42. At the delivery of (name of child), who tied and cut the cord?
1. yourself. []
 2. family member []
 3. traditional birth attendant []
 4. health professional (physician, nurse or midwife) []
 5. other (specify) _____ []
 6. doesn't know []

HIV/STDs

43. Please indicate the way(s) HIV/AIDS can be transmitted to a person. (Check as many as appropriate.)
- a. shaking hands. []
 - b. sharing clothing or towels []
 - c. from an infected mother to her child []
 - d. sharing blood contaminated razors/needles []
 - e. mosquitoes []
 - f. evil spirits []
 - g. eating contaminated foods []
 - h. kissing []
 - i. other (specify) _____ []
44. Please list all the ways AIDS can be prevented. (Check as many as appropriate.)
- a. abstinence []
 - b. use of condoms []
 - c. avoiding unscreened blood transfusions []
 - d. mutual fidelity between uninfected partners []
 - e. avoiding use of unsterilized needles/razors []
 - f. other (specify) _____ []

Gardening

45. Do you have a kitchen garden?
1. yes []
 2. no ----> Go to 48 []

46. If yes, what type of plants do you grow? (Multiple answers possible; record all answers)
- | | | | | | |
|----|---|---|---|---|----|
| a. | green leafy vegetables (spinich, collard greens etc.) | - | - | - | [] |
| b. | yellow vegetables (pumpkins, carrots, etc.) | - | - | - | [] |
| c. | legumes (beans, peanuts, etc.) | - | - | - | [] |
| d. | other (specify) _____ | - | - | - | [] |
47. What do you do with your harvest from your garden?
- | | | | | | |
|----|--------------------------------------|---|---|---|----|
| 1. | consume most of it | - | - | - | [] |
| 2. | sell most of it | - | - | - | [] |
| 3. | consume half and sell the other half | - | - | - | [] |
| 4. | other (specify) _____ | - | - | - | [] |
48. If no garden, why not? (multiple answers possible; record all answers)
- | | | | | | |
|----|-----------------------|---|---|---|----|
| a. | no land | - | - | - | [] |
| b. | no time | - | - | - | [] |
| c. | no need | - | - | - | [] |
| d. | no water | - | - | - | [] |
| e. | no seed | - | - | - | [] |
| f. | no knowledge | - | - | - | [] |
| g. | other (specify) _____ | - | - | - | [] |
49. Do you want to have a kitchen garden?
- | | | | | | |
|----|-----|---|---|---|----|
| 1. | yes | - | - | - | [] |
| 2. | no | - | - | - | [] |