Nutrition and Food Security Survey in Ampara District in 2009

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District profile - Vavuniya

Vavuniya is one of the four districts in the Northern Province of Sri Lanka. Vavuniya town is the main town within f the district.

Map of Sri Lanka showing Vavuniya district is given in Figure 1.

Administratively , the district is divided into 4 Divisional Secretary (DS) divisions and 102 Grama Nildhari (GN) divisions. The local government institutions in the province include one Urban Council and 4 Pradeshiya Sabahas

The district includes a land area of approximately 1967 sq.km. with a population of 183,046 (estimated for 2007). This is one of the districts which were affected by the conflict situation, during the past 3 decades.

Health services are provided by the state sector thrpugh aone Provincila Hopsital, , 1 District Hopsital, 1 Periphaerla Unit, 5 Central Dispensary / Maternity Homes, and 3 Central Dispensaries. Preventive and promotive health services are provided through 4 Health Unit areas with Medical Officers of Health and field staff.

A cross sectional descriptive study was carried out to assess the nutritional status of under five children and women in the 15 – 49 year age group and their correlates.

1. Methods

1.1 Selection of households.

A sample of **XXXX** households from the district of Vavuniya were included in the study. The sampling frame used for selection of clusters was the most recently available population estimate – the 2001 census from the Sri Lanka Department of Census and Statistics. Clusters were defined at the level of a Grama Niladhari (GN) division. GN divisions were identified using the probability proportional to size technique. Within each cluster, 30 households were identified using a systematic sampling procedure.

Map indicating the selected GN divisions is given in Figure 2.. .

A household was defined as persons routinely sharing food from the same cooking pot and living in the same compound or physical location. Members of a household need not necessarily be relatives by blood or marriage. All selected households were included in the survey, irrespective of whether there was a child under five.

1.2. Composition of the survey teams

Each survey team included three interviewers and one team leader . A Co-ordinator was recruited to take the overall responsibility for the conduct of the survey. All team leaders and team coordinators were trained by staff from Medical Research Institute (MRI) with experience from past surveys

The three interviewers from the survey team conducted all interviews. The team leader was responsible for selection of households.

1.3. The Household survey included several components.

Administration of the questionnaire : A pre tested questionnaire was administered to the head of the household. Where possible, mothers were interviewed to obtain information on child care practices and maternal nutrition. The minimum age of respondents was 15 years.

Anthropometric assessments: All children aged 0 to 59 months, along with their mothers and any pregnant women in the household, were selected for measurement. All measurements were conducted by team leaders, and standardized procedures for measuring the height/length, weight were used (WHO,1995). Anthropometric measurements were made using UNISCALES and UNICEF measuring boards. For pregnant women, Mid Upper Arm Circumference (MUAC) was measured in addition to height and weight.

Measurement of haemoglobin levels was carried out for all individuals selected for measurements except children less than six months of age using hemocue method, using capillary blood.

1.4. Supervision and quality assurance

Constant supervision and monitoring of all field activities was attempted. Team leaders monitored the work carried out by the interviewers, while team coordinators monitored team leaders as well as the interviewers. Routine field editing of all questionnaires was conducted by the team leaders.

1.5. Data processing and analysis

EPI Info 6.0 software package was used for data management and entry. Data cleaning was carried out in MS Access by sorting records to filter out extreme values and SQL queries to check logical errors. Consistency checks were run to detect and correct data entry errors.

Data analysis was conducted in Anthro and SPSS. Anthro was used to calculate nutrition z-scores for women and children based on the anthropometric measurements, using WHO standards as the reference value..

2. Results

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A total of **439 households TO BE CHECKED** were included in the survey, with 14.1 percent of households being in the urban sector and 85.9 percent in the rural sector and none in the estate sector

Of the total 2004 individuals who were usually resident in the selected households,563 (28.1 percent) were women aged between 15.0 and 49.9 years. Children aged between 5.0 and 14.9 years was 19.4 percent and 13.9 percent were children aged less than 5 years. There were 159 children aged between 2.0-4.9 years, 7.9 percent of the total population.

2.1. Nutritional Status

2.1.1. Nutritional status of children

Prevalence of malnutrition

The three indices of physical growth that describe the nutritional status of children according to WHO growth standards (WHO, 2006) are : Height-for-age, Weight-for-height and Weight-for-age. Each of the four nutritional status indicators expressed in terms of standard deviations from the median (Z-scores) of the reference population was used to assess the prevalence of stunting (height for age < -2SD), wasting (weight for height <-2SD) , underweight (weight for age <-2SD) and overweight (weight for height more than +2SD). .

A total of 248 children in the age group 0 – 59 months were included in the anthropometric assessment. As shown in Table 1, among this group, 18.1 percent were stunted, 10.9 percent wasted and 22.6 percent were underweight . Severe stunting was seen among 3.2 percent of the total group, with the comparable figure for severe wasting and severe underweight being 2.0 and 3.2 percent. With 1.6 percent having weight for height values more than +2 SD.

Comparisons made between sub groups are based on relatively low numbers within each such group, hence have limitations in interpretation..

The prevalence of stunting, wasting and underweight were highest in the 24 – 35 months age group. The percentages were higher among males.

A decline 9n the prevalence of stunting is seen with increasing levels of wealth quintiles.

Table 1 Prevalence of malnutrition: stunting, wasting, overweight and underweight by background characteristics

Background characteristic	Height-for- age (%)		Weight-for-height (%)			Weight-for-age (%)		Total No of Children
	<-2SD	<-3SD	<-2SD	<-3SD	≥+2SD	<-2SD	<-3SD	

Background characteristic	Height-for- age (%)		Weight-for-height (%)			Weight-for-age (%)		Total No of Children
	<-2SD	<-3SD	<-2SD	<-3SD	≥+2SD	<-2SD	<-3SD	
Age of child (months)								
<6	11.4	2.9	11.4	2.9	8.6	17.1	0.0	35
6-11	16.0	4.0	4.0	0.0	0.0	20.0	8.0	25
12-23	19.6	3.9	3.9	2.0	0.0	17.6	2.0	51
24-35	27.9	7.0	18.6	2.3	0.0	32.6	4.7	43
36-47	18.4	2.0	12.2	2.0	0.0	28.6	4.1	49
48-59	13.3	0.0	13.3	2.2	2.2	17.8	2.2	45
Sex of child								
Male	23.4	3.6	14.6	3.6	1.5	26.3	4.4	137
Female	11.7	2.7	6.3	0.0	1.8	18.0	1.8	111
Sector								
Urban	16.7	2.8	16.7	2.8	0.0	22.2	2.8	36
Rural	18.4	3.3	9.9	1.9	1.9	22.6	3.3	212
Mother's education								
No schooling	18.2	0.0	27.3	9.1	0.0	36.4	0.0	11
Primary	27.8	5.6	0.0	0.0	0.0	27.8	0.0	18
Secondary	22.4	3.0	11.9	1.5	3.0	20.9	4.5	67
Passed O' Level	17.3	4.0	9.3	0.0	0.0	22.7	4.0	75
Higher	10.2	2.0	12.2	2.0	2.0	16.3	0.0	49
Monthly household income								
< 9,000	21.3	3.4	11.2	2.2	0.0	27.0	4.5	89
9,000 – 13,999	22.5	4.2	9.9	2.8	1.4	25.4	4.2	71
14,000 – 19,999	12.2	4.9	9.8	2.4	7.3	14.6	2.4	41
20,000 – 31,999	9.7	0.0	16.1	0.0	0.0	16.1	0.0	31
≥ 32,000	18.2	0.0	9.1	0.0	0.0	27.3	0.0	11
Wealth index quintile								
Poorest	25.6	4.7	10.5	4.7	2.3	26.7	4.7	86
Second	18.5	3.1	15.4	0.0	0.0	29.2	3.1	65
Middle	18.6	2.3	7.0	0.0	2.3	16.3	2.3	43
Fourth	7.9	2.6	5.3	2.6	2.6	15.8	2.6	38
Richest	0.0	0.0	18.8	0.0	0.0	6.3	0.0	16
Overall	18.1	3.2	10.9	2.0	1.6	22.6	3.2	248

2.1.2. Anaemia in children

The haemoglobin levels of 215 children in the age group 6–59 months were assessed using the 'haemocue 'method (cut off point - Hb <11.0 gms %) . As shown in Table 2, the prevalence of anaemia in this group was 33.0 percent, The highest percentage was seen in during the latter half of infancy (40.0 percent), and this percentage declined with increasing age, with the 48–59 months age group showing the lowest (24.4 percent). Female children showed a higher prevalence (35.1 percent) than males(31.4).

There was no consistent pattern in the prevalence of anaemia with increasing maternal education and indicators of income and wealth.

Table 2 Prevalence of anaemia among children 6-59 months of age by background characteristics

Background characteristic	% of children with Anaemia (Hb<11.0g/dl)*	Number of Children who were investigated for Hb
Age of child (months)		
6-11	40.0	25
12-23	39.2	51
24-35	39.5	43
36-47	25.5	51
48-59	24.4	45
Sex of child		
Male	31.4	121
Female	35.1	94
Sector		
Urban	32.3	31
Rural	33.2	184
Mother's education		
No schooling	55.6	9
Primary	44.4	18
Secondary	39.0	59
Passed O' Level	30.9	68
Higher	20.5	39
Monthly household income		
< 9,000	37.2	78
9,000 – 13,999	28.3	60
14,000 – 19,999	36.8	38
20,000 – 31,999	23.1	26
≥ 32,000	37.5	8
Wealth index quintile		
Poorest	46.8	79
Second	24.0	50

Middle	30.6	36
Fourth	14.3	35
Richest	40.0	15
Overall	33.0	215

2.1.3. Birth weight

The birth weights were obtained form the Child Health Development Records (CHDRs). This study included children born within the 5 years preceding the survey. Considering the newborns with a birth weight of less than 2500 grams as being low birth weight (LBW), the overall prevalence was 16.4 percent (Table 3). Birth weight distribution by the current age of the child enables comparison of prevalence of LBW among different birth cohorts. There is no definite pattern observed except that the cohort aged between 12 – 23 months at the time of the study had the highest prevalence of LBW of 24.0 percent. The prevalence was higher among male newborns than females.

Mean birth weight for the total group was3.0 ± 0.5 kg with no clear pattern observed between age groups and in relation to increasing levels of maternal education, income levels and higher wealth quintiles.

Table 3 Prevalence of low birth weight, and mean birth weight among children born in the 5 years preceding the survey, by background characteristics

Background characteristic	Birth Weight				Number of children
	< 2500g (%)	≥ 2500g (%)	Mean (kg)	SD	
Age of child (months)					
0-5	15.8	84.2	3.1	0.5	38
6-11	11.5	88.5	2.9	0.5	28
12-23	24.0	76.0	2.8	0.4	51
24-35	17.8	82.2	2.9	0.6	49
36-47	17.0	83.0	2.9	0.5	58
48-59	9.1	90.9	3.0	0.7	47
Sex of child					
Male	17.6	82.4	3.0	0.6	149
Female	14.9	85.1	2.9	0.5	122
Residence					
Urban	8.3	91.7	3.1	0.4	40
Rural	17.7	82.3	2.9	0.6	231
Mother's education					
No schooling	30.0	70.0	2.7	0.3	11
Primary	15.4	84.6	3.0	0.4	18

Background characteristic	Birth Weight				Number of children
	< 2500g (%)	≥ 2500g (%)	Mean (kg)	SD	
Secondary	16.2	83.8	2.9	0.5	75
Passed O' Level	17.9	82.1	3.0	0.7	82
Higher	12.0	88.0	3.0	0.5	52
Monthly household income (n=2592)					
< 9,000	20.9	79.1	2.9	0.6	94
9,000 – 13,999	16.2	83.8	3.0	0.5	79
14,000 – 19,999	10.4	89.6	3.0	0.5	48
20,000 – 31,999	12.9	87.1	3.0	0.5	33
≥ 32,000	27.3	72.7	2.8	0.4	11
Wealth index quintile					
Poorest	18.4	81.6	2.9	0.6	92
Second	13.8	86.2	3.0	0.5	68
Middle	24.4	75.6	2.9	0.5	45
Fourth	9.3	90.7	3.1	0.5	46
Richest	15.0	85.0	2.9	0.4	20
Overall	16.4	83.6	3.0	0.5	271

2.2.Nutritional status of women of 15-49 year

2.2.1. Non pregnant women (using Body Mass Index)

A total of 195 non-pregnant women aged between 15 to 49 years, and with a child under 5 years age were included in the assessment of body mass index . As shown in Table 4., of the total sample of non-pregnant women, 15.0 percent had BMI less than 18.5, 20.6 percent with values between 25 and 29 (overweight) and 10.6 percent, with BMI values 30 or above (obese).

The prevalence of underweight (BMI less than 18.5) was highest in the 20 – 29 age group (20.8 percent). No clear pattern was seen in relation to increasing income levels and with higher wealth quintiles

Of all non-pregnant women studied, 31.2 percent were either overweight or obese. This percentage was highest in the 30 – 39 age group. .

Table 4 Distribution of non-pregnant women 15-49 years by BMI levels, by background characteristics

Background Characteristics	BMI category (%)	Total women

	Underweight (BMI<18.5)	Normal (BMI=18.5-24.9)	Overweight BMI=25.0-29.0)	Obese (BMI>30.0)	
Age group (years)					
15-19	10.0	80.0	10.0	0.0	10
20-29	20.8	51.9	15.6	11.7	80
30-39	8.2	50.7	30.1	11.0	81
40-49	20.0	60.0	10.0	10.0	24
Sector					
Urban	7.4	44.4	11.1	37.0	27
Rural	16.3	55.6	22.2	5.9	168
Women's education level					
no schooling	28.6	57.1	14.3	0.0	7
primary	23.1	46.2	15.4	15.4	15
Secondary	19.0	50.0	22.4	8.6	63
Passed GCE (O/L)	12.1	60.3	15.5	12.1	66
Higher	8.8	50.0	29.4	11.8	34
Monthly household income					
< 9,000	8.9	67.9	19.6	3.6	63
9,000 – 13,999	18.2	50.9	23.6	7.3	61
14,000 – 19,999	15.2	39.4	21.2	24.2	33
20,000 – 31,999	16.7	50.0	16.7	16.7	19
≥ 32,000	25.0	37.5	25.0	12.5	8
Wealth index quintiles					
Poorest	17.3	59.6	21.2	1.9	59
Second	15.7	52.9	19.6	11.8	51
Middle	12.1	63.6	15.2	9.1	36
Fourth	14.3	39.3	21.4	25.0	31
Richest	12.5	43.8	31.3	12.5	18
Overall	15.0	53.9	20.6	10.6	195

2.2.2. Pregnant women (using Mid Upper Arm Circumference (MUAC)

Nutritional status of the 30 pregnant women were assessed using MUAC. This assessment indicated that 13.3. percent of these women were under nourished.

2.1.1. Anaemia in women

Three groups of women were included in this component of the study :(I). pregnant women (30) (ii.) lactating women (97) (iii.) all I non pregnant women including lactating women (183).

2.1.2.Pregnant women

As shown in Table 5, overall prevalence of anaemia among this group was 40.0 percent. Number of pregnant women in the sub groups are limited, hence no attempt is made to draw any observations on differences between sub groups.

2.1.3.Lactating women

Among lactating women, the overall prevalence was 32.0 percent. There was a consistent decline in the prevalence with increasing level of mother's education, even though no consistent pattern was seen with the changes in the two income related measures.

All non-pregnant women

The overall prevalence among this group was 31.1 percent.

Table 5 Prevalence of Anaemia*, among i) pregnant women, ii). lactating women and iii). All non-pregnant women by background characteristics

background characteristic	Pregnant		Lactating		All Non-pregnant	
	Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Age group (years)						
< 20	66.7	3	42.9	7	40.0	10
20-29	42.1	19	28.8	52	26.0	77
30-39	28.6	7	34.4	32	35.5	76
40-49	0.0	1	33.3	6	30.0	20
Residence						
Urban	50.0	6	23.1	13	18.5	27
Rural	37.5	24	33.3	84	33.3	156
Estate						
Women's education level						
no schooling	100.0	2	0.0	3	0.0	7
primary	33.3	3	100.0	5	53.8	13
Secondary	33.3	6	28.1	32	33.3	60
Passed GCE (O/L)	28.6	7	20.7	29	23.7	59
Higher	33.3	6	40.9	22	38.2	34
Monthly household income						

background characteristic	Pregnant		Lactating		All Non-pregnant	
	Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
< 9,000	50.0	10	28.6	28	32.8	58
9,000 – 13,999	12.5	8	33.3	36	29.1	55
14,000 – 19,999	50.0	4	15.4	13	27.3	33
20,000 – 31,999	80.0	5	25.0	8	16.7	18
≥ 32,000	0.0	1	80.0	5	75.0	8
Wealth quintile of household						
Poorest	50.0	10	38.7	31	35.2	54
Second	42.9	7	33.3	27	29.4	51
Middle	33.3	6	33.3	18	33.3	33
Fourth	33.3	3	7.7	13	17.2	29
Richest	25.0	4	37.5	8	43.8	16
Overall	40.0	30	32.0	97	31.1	183

All tables are given in annex 1

II

2.3. Childhood Illnesses

Diarrhoea and respiratory infections are the two common illnesses that lead to increased morbidity and mortality among children under 5 years. The present study sought information from respondents related to the occurrence of these two illnesses during the two weeks preceding the interview.

2.3.1 Respiratory illness

Respondents were asked whether their children less than five years of age had one or more symptoms related to respiratory illness (cough, rapid or difficult breathing) during the period of 2 weeks preceding the survey. A child who was having cough with rapid or difficult breathing, was identified as having had symptoms of respiratory illness.

Among the total group 13.4 percent reported to have had symptoms related to respiratory illness during the specified period (Table A 1)

2.3.2. Diarrhoea

The respondents were asked whether their children under five years had experienced an episode of diarrhea during the two weeks preceding the survey. (Diarrhoea was defined as three or more loose or watery stools per day or blood in stool). If the child had diarrhea, information on giving oral dehydration fluid using the packet 'Jeewani' during the episode of diarrhoea, was inquired into.

Of the total group,7.6 percent of children who reported to have had diarrhea during the specified period of whom 44.4 percent had given 'Jeevanie' .

2.4. Dietary intake and feeding practices

2.4.1. Breastfeeding practices

Percentage of children less than 24 months years of age who were ever breastfed, currently breastfed and started breastfeeding within one hour / one day of birth are given in Table A 2 . Of all children, 98.6 percent were ' ever breastfed'. Of them, 91.0 percent were breast fed within the first hour of birth and 95.5 percent were currently breast fed , given breast milk in the previous 24 hours .

2.4.2. Complementary feeding and bottle-feeding practices

As shown in Table A 2, of the children 6-8 months 84.6 percent were given breast milk and solid / semi solid foods. In the total sample, 23.0 percent of infants under 24 months had been bottle fed.

2.4.3. Food Consumption among children in the age group 6 – 59 months

Food consumption pattern was based on the information about the food items given to children aged 6 – 59 months on the day preceding the interview. Ten different food items were included in this analysis. Table A 3 shows the percentage of children in this age group who were given the food items within the preceding 24 hours, by background characteristics.

For the total sample, 92.7 percent of the children were given grains/roots/tubers, while 75 – 80 percent t were given vitamin A rich fruits and vegetables and other fruits and vegetables. , Of this group, 60 - 65 per cent were given meat fish/ poultry/ organ meats and eggs. Dairy products were given to 42.9 percent . Foods cooked with oil or fat were given to 48.5 percent of children and 42.2 percent had been given fortified food (commercially available cereals) with a much higher percentage (82.4 percent) having been given sugary foods (chocolates, sweets, candies, cakes, biscuits etc.).

2.3.4. Dietary diversity

Dietary diversity is based on the premise that more diverse diets are more likely to provide adequate levels of a range of nutrients.

Individual dietary diversity score for children aged 6-59 months

In this study, individual dietary diversity score for children aged 6 – 59 months was assessed. (according to FANTA[1]) . As shown in Table A 4, for all children in this age group, the IDDS was 5.3 (SD = 2.1) .

The dietary diversity score of children aged 6-59 in the households belonging to the highest wealth quintile was used as a "target to be achieved" based on the assumption that poorer households will diversify their food consumption practices as incomes rise, and thereby attempting to follow the consumption pattern of wealthier households. Table A 4 shows the IDDS among children in the highest wealth quintile was 6.0. Based on this value, the percentage of children yet to achieve the target was assessed. This percentage was 51.56 for the total sample.

Information on Minimum meal frequency, dietary diversity and minimum acceptable diet for children aged 6-23 months are given in Table A 5.

2.4. Care Practices

Care practices were studied in relation to activities on early childhood development including promoting early learning at household level, practices related to play activities, early childhood education, school enrolment. The age group to be included in the different components in the study of care practices varied, depending on the relevance.

2.4.1. Promoting early learning at household level

As shown in Table A 6, the average number of' education related activities' undertaken by the children was 4.9. For 80.3 percent of children, an adult was engaged in more than three activities that promoted early learning, during the 3 days preceding the survey. Considering the children under 5 years of age, 14.0 percent were looked after by a child under the age of 10 years, during the week preceding the interview.

2.4.2. Childhood education

As shown in Table A 7, of the children aged 36-59 months, 56.3 percent had attended an early childhood educational programme and 99.2 percent of the children who have completed 5 years by 31st January 2009 were enrolled in grade 1 and 95.2 percent of all children 5-10 years of age were attending Primary School (Table A 8).

None of the children included in the study had participated in activities identified as 'child labour'.

Information related to play items is given in Table A 9 respectively.

2.5. Use of health services

[1] *Anne Swindale & Paula Bilinsky Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide VERSION 2 September 2006*

2.5.1. Attendance at Child Welfare Clinic

As shown in Table A 10, 93.9 percent of the children under 5 years had received care at a Child Welfare Clinic (CWC) and 86.0 percent of the children had their Child Health Development Records (CHDRs) with them at the time of interview . Of the mothers who attended the child welfare clinics, 90.9,89.5 and 84.7 percent received advice on growth, nutrition and early childhood development respectively. Of this group,12.9 percent of children aged 6-59 months had received at least one packet of thriposha in the previous month.

2.5.2. Vitamin A supplementation for children

Of the group, 67.2 percent of children who had completed 9 months of age had received a mega dose of vitamin with the percentage of children who received a vitamin A mega dose at 18 months, 36 months being 68.6 and 66.3 percent respectively. Considering all children aged 36 months and 62.2 percent had been given 3 mega doses of Vitamin A (Table A 11). .

2.5.3. Source of medical care for common childhood illnesses

Source of medical care for those children who reported diarrhoea / respiratory symptoms within the 2 weeks preceding the interview was considered under services provided by the government sector, private sector and other sectors. As shown in Table A 12 , 53.8 percent of the total group used services from the government sector and 38.8 percent from the private sector and 5.0 percent from other sources..

2.5.4. Use of services at antenatal clinics

A total of 93.1 percent of the pregnant mothers had attended antenatal clinics regularly as shown in Table A 13 .

2.5.5. Food and nutrient supplementation for women

The two main nutrition supplementation programmes aimed at pregnant women are the provision of a food basket (“poshana malla”) through the Samurdhi programme implemented by the : Ministry of Samurdhi and Poverty Alleviation and the Thriposha programme implemented by the Ministry of Health care and Nutrition. Of all pregnant mothers, 85.7 percent received Thriposaha and 14.3 percent of women had received “poshana malla” (Table A 13). Recipients of iron tables totaled to 89.7 percent with 76.9 percent of such recipients using them regularly.

Of the lactating mothers with a child under 6 months of age, 76.7 percent had received “thriposha” (Table A 14) and vitamin A mega dose has been given to 89.7 percent, after childbirth.

2.5.6. *Samurdhi* beneficiaries

In the households included in the study, there were a total of 98 non pregnant, non lactating women in the age group 15 – 49 years. Of this group, 25.5 percent received *Samurdhi* benefits being members of households that were beneficiaries under the *Samurdhi* programme. (Table A 15). Percentage beneficiaries among the pregnant women and lactating women were 6.5 percent and 21.6 percent respectively.

2.6. Water and Sanitation

2.6.1. Use of improved water sources

As shown in Table A 16, 75.2 percent of the households had improved sources of water. The households with piped water inside the dwelling was higher in the households belonging to higher wealth quintiles.

Of the households, 68.0 percent used any one of the appropriate water treatment , boiling being the most frequently used method, practiced by 44.0 percent of the households. (Table A 17). The percentage of households that used boiling as a method of making water safe, increased from the lowest wealth quintile to the highest

2.6.2.Use of sanitary means of excreta disposal

Use of flush toilets connected to sewage systems, or septic tanks was considered as sanitary means of excreta disposal. As shown in Table A 18, the percentage of households using sanitary means of excreta disposal was 52.8 percent.

2.6.3. Use of improved water sources and sanitary means of excreta disposal

Table A 19 shows the distribution of households that use both improved sources of drinking water and sanitary means of excreta disposal. For the district sample,39.6 percent of households reported used both improved water source and sanitary means of excreta disposal..

Information on the time consumed to collect water and the person collecting water are given in Tables A 20 and A 21 respectively.

2.7. Food Security and Coping Strategies

2.7.1. Household food consumption

The food items consumed by households were grouped into 11 categories based on the FAO classification of food groups with some modifications to include coconut and sugar separately. These food groups were used in assessing the food consumption pattern as shown in Tables A 22 and A 23 .

Table A 22 provides information on food items consumed within 24 hours preceding the survey. Consumption of rice and rice products, coconuts and sugar was nearly 100 percent and consistent across all sub groups studied. Bread and wheat products were consumed by 73.0 percent of all households. Of the households, 65.1 percent of households consumed nuts/pulses and 74.8 percent consumed meat/ poultry/ fish or dry fish, and 56.5 percent consumed eggs. . A total of 73.5 percent of households consumed fruits. The percentages of households that consumed milk and milk products was 48.9, oils and fats in79.3 percent of households.

Information on the consumption of different foods for at least 5 days during the week preceding the survey is shown in Table A 23. This information indicated important differences from the Table A. 23, which focused on the consumption pattern during the 24 hours preceding the survey, for example, .

Similar to the 24-hour consumption pattern, rice, coconut and sugar were consumed by more than 95 percent of the households. However, the consumption of food groups such as bread and wheat products, nuts and pulses, fruits, meat/poultry/fish and dry fish, eggs, and milk/dairy products were markedly lower during the 7-day period.

Table A 24 provides information on the household members who consume three or more main meals a day.

2.7.2. Household dietary diversity

Household dietary diversity score (HDDS) is a proxy measure of households consuming a variety of food indicating a nutritionally 'satisfactory' diet and the method used to make this assessment is given in Table A 25 . This table indicates that the mean HDDS for the total group was 8.1 (SD 1.8). The value shows an increasing trend with increasing income and wealth quintile.

The HDDS obtained by the households in the highest wealth quintile category (880) was taken as the 'target ' to be achieved and the percentage of households yet to achieve the target was calculated. For the total sample, the percentage of households yet to achieve the target was 54.7 .The percentage showed a consistent decline with increasing income and wealth quintiles.

2.7.3. Expenditure on food and other goods and services

Study of broad categories under which household expenditure for a one-month period showed that considering all households included in the study, 57.4 percent of the total household monthly income was spent on food, and 16.1 percent on other goods and services (Table A 26).

Type of food groups by source is given in Table A 27. Food availability at household, food stocks and food aid are given in tables A 28, 29 and 30 respectively.

2.7.4. Coping Strategies

During the periods when there were limitations in food availability, different coping strategies were adopted by households (Table A 31). Use of such strategies during the month preceding the survey was studied paying attention to the frequency of practice. Of the total number of households 31.4 percent had adopted 1 or more coping strategies. Of them, more of the households adopted food related coping strategies compared to non-food coping strategies.

The common strategies adopted were: to rely on less preferred food (25.6 percent) and purchased food on credit (26.7 percent) and 23.8 percent borrowed food. The main non-food strategies adopted were : borrowing money from relatives/neighbours (82.7 percent), pawning jewellary (18.0 percent) and using savings (10.6 percent). **CHECK THIS TABLE.**

The distribution of the households that adopted a specific food-related coping strategy by background characteristics is shown in Table A 32. However, there are limitations in drawing conclusions due to the limited number of households in the sub groups.

Taking loans is a commonly adopted strategy to cope with difficult situations, whether it is food related or not. As shown in Table A 33, 37.6 percent of households had taken loans within the preceding month which were used for: for purchase of food (50.6 percent), repaying loan (11.3 percent) , for income generation activities (10.7 percent) and for medical costs (10.1 percent)..

2.7.5. Food insecurity

A state of food insecurity exists when nutritionally adequate and safe foods are not readily available or there is inability to acquire acceptable foods**.** In this study, food insecurity levels were determined according to the method described by the World Food Programme (WFP), given in annex 2..

2.7.5.1. Household food consumption adequacy score (HFCAS)

As shown in Table A 34, the mean HFCAS for all households was71.5(SD=18.5). The scores differed between sectors, higher in the urban sector,75.9 and lower in the *rural* sector,70.8 . Study of HFCAS categories indicates that 0.9 percent of the households had poor food consumption,3.2 percent were borderline and 975.9 percent , had adequate food consumption. .

2.7.5.2. Food insecurity categories

Food insecurity levels obtained by cross-tabulating food access categories (as indicated by percentage expenditure on food) and food consumption categories for households with a child aged less than 5 years (n= 222) are presented in Table 35. Of these households, 0.5 percent were found to be 'severely food insecure' with comparable percentages for 'moderately insecure' and 'secure' were12.2 and 87.4 percent respectively.

In interpreting food insecurity, the two categories, moderately and severely food insecure categories were considered together. There were no food insecure households in the urban sector(Table 36)

Considering the key socio-economic indicators included in this study, the marked influences such indicators have on food insecurity is clearly shown. There was an upward trend in the percentage of food secure households, with increasing level of education of the head of the household and increasing income levels and wealth quintiles. However, these observations have to be interpreted with caution as numbers in some of the such categories are small.

ANNEX 1

Table A1 : Percentage of under-5 children who reported symptoms of respiratory illness and diarrhoea by background characteristics

background characteristic	Total number of children	% reported symptoms of		Total No. of children reported Diarrhoea	% Given *Jeewanee* *
		Respiratory illness	Diarrhoea		
Age of child (months)					
<6	37	5.4	2.7	1	100.0
6-11	25	12.0	8.0	2	0.0
12-23	50	20.0	14.0	7	33.3
24-35	48	6.3	4.2	2	50.0
36-47	56	16.1	10.7	6	66.7
48-59	46	17.4	4.3	2	0.0
Sex of child					
Male	143	13.3	4.9	143	50.0
Female	119	13.4	10.9	119	41.7
Sector					
Urban	39	12.8	10.3	39	75.0
Rural	223	13.5	7.2	223	35.7
Mother's education					
No schooling	11	18.2	36.4	11	100.0
Primary	18	5.6	16.7	18	0.0
Secondary	73	17.8	5.5	73	50.0
Passed O' Level	81	11.1	7.4	81	20.0
Higher	51	9.8	5.9	51	50.0
Monthly household income					
< 9,000	89	13.5	9.0	89	37.5
9,000 – 13,999	77	10.4	10.4	77	50.0
14,000 – 19,999	46	13.0	4.3	46	50.0
20,000 – 31,999	33	9.1	0.0	33	0.0
≥ 32,000	11	54.5	18.2	11	50.0
Wealth quintile					
Poorest	88	15.9	10.2	88	37.5
Second	67	4.5	9.0	67	66.7
Middle	42	16.7	4.8	42	0.0
Fourth	45	17.8	2.2	45	0.0
Richest	20	15.0	10.0	20	50.0

background characteristic	Total number of children	% reported symptoms of		Total No. of children reported Diarrhoea	% Given *Jeewanee* *
		Respiratory illness	Diarrhoea		
Overall	262	13.4	7.6	20	44.4

Table A 2 : Infant and young child feeding practices by background characteristics.

background characteristic	Percent						No. of children under 2 year
	Ever breastfed	Currently breastfed	Initiated breastfeeding within one hour of birth*	initiated breastfeeding within one day of birth	Introduced complementary food among infants 6-8 months	bottle-fed	
Age of child in months							
<6	100.0	100.0	86.5	97.3	-	5.4	38
6-11	93.3	84.6	92.3	100.0	-	46.2	28
12-23	100.0	94.1	100.0	100.0	-	24.0	51
Sex of child							
Male	97.1	93.9	90.9	100.0	85.7	20.7	60
Female	100.0	97.1	91.2	97.1	83.3	25.5	57
Residence							
Urban	100.0	100.0	71.4	100.0	50.0	18.8	18
Rural	98.4	95.0	93.3	98.3	90.9	23.7	99
Maternal education							
no schooling	100.0	100.0	100.0	100.0	0.0	25.0	4
Primary	100.0	50.0	100.0	100.0	0.0	20.0	5
Secondary	95.2	95.2	90.0	95.0	0.0	14.7	35
Passed GCE (O/L)	100.0	93.8	93.8	100.0	100.0	22.6	31
Higher	100.0	100.0	88.2	100.0	85.7	29.2	25
Monthly household income							
< 9,000	96.0	95.8	100.0	100.0	0.0	14.3	38
9,000 – 13,999	100.0	95.0	85.0	95.0	80.0	21.6	37
14,000 – 19,999	100.0	100.0	80.0	100.0	100.0	35.0	20
20,000 – 31,999	100.0	100.0	100.0	100.0	100.0	8.3	12
≥ 32,000	100.0	100.0	100.0	100.0	100.0	66.7	6
Wealth quintile of household							
Poorest	96.4	92.0	96.0	100.0	66.7	22.5	42
Second	100.0	95.0	85.0	95.0	100.0	15.6	32
Middle	100.0	100.0	100.0	100.0	50.0	13.3	16

background characteristic	Percent						No. of children under 2 year
	Ever breastfed	Currently breastfed	Initiated breastfeeding within one hour of birth*	initiated breastfeeding within one day of birth	Introduced complementary food among infants 6-8 months	bottle-fed	
Fourth	100.0	100.0	88.9	100.0	100.0	36.8	19
Richest	100.0	100.0	66.7	100.0	100.0	42.9	8
Overall	98.6	95.5	91.0	98.5	84.6	23.0	117

Table A 3 : Percentage of children aged 6-59 months, who were given different food items on the day preceding the interview, by background characteristics

background characteristic	Grains /Roots/ Tubers	Legume/Nuts	Vit A rich fruits and vegetables	Other fruits and vegetables	Dairy product/Milk / yogurt / cheese*	Eggs	Meat/fish/Poultry/organ meats	Food cooked with oil or Fat	Fortified Food	Sugary Food
Age of child in months										
6-11	78.6	32.1	60.7	57.1	21.4	32.1	39.3	21.4	39.3	57.1
12-23	94.1	64.7	82.4	72.5	31.4	62.7	60.8	33.3	47.1	84.3
24-35	93.9	79.6	81.6	77.6	55.1	61.2	75.5	59.2	51.0	85.7
36-47	96.6	72.4	84.5	79.3	50.0	69.0	65.5	65.5	50.0	89.7
48-59	93.6	66.0	78.7	78.7	46.8	63.8	68.1	48.9	44.7	83.0
Sex of child										
Male	93.1	67.2	76.3	72.5	40.5	60.3	62.6	46.6	45.8	80.2
Female	92.2	64.7	83.3	77.5	46.1	60.8	65.7	51.0	49.0	85.3
Residence										
Urban	91.2	73.5	82.4	76.5	58.8	35.3	64.7	58.8	14.7	82.4
Rural	93.0	64.8	78.9	74.4	40.2	64.8	63.8	46.7	52.8	82.4
Maternal education										
no schooling	100.0	88.9	100.0	55.6	55.6	55.6	55.6	44.4	33.3	55.6
primary	100.0	61.1	83.3	83.3	33.3	72.2	66.7	22.2	55.6	94.4
Secondary	87.5	62.5	73.4	70.3	39.1	67.2	68.8	51.6	42.2	82.8
Passed GCE (O/L)	94.6	67.6	81.1	74.3	41.9	58.1	60.8	48.6	54.1	86.5
Higher	92.9	66.7	81.0	83.3	54.8	52.4	64.3	50.0	45.2	71.4
Monthly household income										

background characteristic	Grains /Roots/ Tubers	Legume/Nuts	Vit A rich fruits and vegetables	Other fruits and vegetables	Dairy product/Milk / yogurt / cheese*	Eggs	Meat/fish/Poultry/organ meats	Food cooked with oil or Fat	Fortified Food	Sugary Food
< 9,000	97.5	63.0	81.5	70.4	34.6	75.3	63.0	46.9	56.8	79.0
9,000 – 13,999	91.0	55.2	68.7	71.6	38.8	44.8	50.7	43.3	37.3	85.1
14,000 – 19,999	88.1	81.0	83.3	88.1	66.7	52.4	78.6	59.5	35.7	83.3
20,000 – 31,999	89.3	78.6	89.3	78.6	53.6	64.3	78.6	53.6	64.3	92.9
≥ 32,000	90.0	80.0	90.0	90.0	30.0	50.0	50.0	60.0	40.0	60.0
Wealth quintile of household										
Poorest	94.0	52.4	77.4	63.1	29.8	57.1	58.3	42.9	52.4	82.1
Second	90.4	71.2	75.0	75.0	38.5	67.3	59.6	48.1	44.2	88.5
Middle	92.3	79.5	79.5	84.6	56.4	69.2	64.1	59.0	43.6	82.1
Fourth	90.2	63.4	85.4	85.4	58.5	53.7	73.2	51.2	46.3	80.5
Richest	100.0	94.1	88.2	82.4	52.9	52.9	82.4	47.1	41.2	70.6
Overall	92.7	66.1	79.4	74.7	42.9	60.5	63.9	48.5	47.2	82.4

(*Breast milk was not included)

Table A 4 : Individual dietary diversity score in children (IDDS) according to background characteristics fro children 6 – 59 months

Background characteristic	IDDS (range 0-8)		% of individuals yet to achieve the target	Total number of children
	Mean	SD		
Age of child in months				
6-11	3.4	2.5	75.0	28
12-23	5.0	2.1	58.8	51
24-35	5.8	2.1	42.9	49
36-47	5.8	1.7	41.4	58
48-59	5.4	1.9	51.1	47
Sex of child				
Male	5.2	2.1	52.7	131
Female	5.4	2.2	50.0	102
Residence				
Urban	5.4	2.2	55.9	34
Rural	5.3	2.1	50.8	199
Maternal education				
no schooling	5.6	2.6	44.4	9

Background characteristic	IDDS (range 0-8)		% of individuals yet to achieve the target	Total number of children
	Mean	SD		
Primary	5.2	1.7	55.6	18
Secondary	5.2	2.2	54.7	64
Passed GCE (O/L)	5.3	1.8	54.1	74
Higher	5.5	2.5	38.1	42
Monthly household income				
< 9,000	5.3	1.9	51.9	81
9,000 – 13,999	4.6	2.3	64.2	67
14,000 – 19,999	6.0	1.9	38.1	42
20,000 – 31,999	5.9	2.3	35.7	28
≥ 32,000	5.4	2.5	50.0	10
Wealth quintile of household				
Poorest	4.8	2.0	70.2	84
Second	5.3	2.3	46.2	52
Middle	5.8	2.2	30.8	39
Fourth	5.6	2.2	41.5	41
Richest	6.0	1.7	47.1	17
Overall	5.3	2.1	51.5	233

Table A 5 : Minimum meal frequency, dietary diversity, and minimum acceptable diet in children 6-23 months, by background characteristics

Background characteristic	Minimum meal frequency		Minimum Dietary diversity score, Mean (range 0-7)	% with minimal dietary diversity (≥4 groups)	Percentage of minimum acceptable diet	Total no. of children
	Breastfed	Non-Breastfed				
Age group in months						
6-8	85.7	16.7	2.8	46.2	15.4	13
9-11	25.0	27.3	3.5	53.3	20.0	15
12-14	0.0	37.5	4.4	73.3	13.3	15
15-17	33.3	27.3	4.6	64.3	14.3	14
18-20	100.0	10.0	5.3	75.0	25.0	12
21-23	50.0	16.7	4.5	70.0	30.0	10
Sex of child						
Male	38.5	27.6	4.0	57.1	16.7	42
Female	50.0	17.4	4.3	70.3	21.6	37
Residence	0.0	0.0		0.0	0.0	
Urban	0.0	40.0	4.2	66.7	25.0	12

Background characteristic	Minimum meal frequency		Minimum Dietary diversity score, Mean (range 0-7)	% with minimal dietary diversity (≥4 groups)	Percentage of minimum acceptable diet	Total no. of children
	Breastfed	Non-Breastfed				
Rural	48.0	19.0	4.2	62.7	17.9	67
Maternal education						
no schooling	0.0	0.0	2.5	0.0	0.0	2
Primary	0.0	0.0	5.0	80.0	0.0	5
Secondary	33.3	26.7	4.3	62.5	20.8	24
Passed GCE (O/L)	57.1	25.0	4.5	69.6	26.1	23
Higher	42.9	37.5	3.7	60.0	13.3	15
Monthly household income						
< 9,000	20.0	13.3	4.3	64.0	16.0	25
9,000 – 13,999	50.0	17.6	3.3	40.0	4.0	25
14,000 – 19,999	50.0	50.0	5.0	85.7	35.7	14
20,000 – 31,999	50.0	0.0	5.3	85.7	14.3	7
≥ 32,000	100.0	66.7	3.8	80.0	60.0	5
Wealth quintile of household						
Poorest	40.0	5.3	4.0	58.8	11.8	34
Second	50.0	33.3	3.7	43.8	12.5	16
Middle	50.0	33.3	4.2	70.0	30.0	10
Fourth	50.0	20.0	4.8	78.6	21.4	14
Richest	40.0	60.0	4.8	100.0	60.0	5
Overall	44.4	23.1	4.2	63.3	19.0	79

Table A 6 : Participation of adult members in activities of children aged 2 to 5 years, and percentage of under 5 children cared for by a child <10 years, by background characteristics

Background characteristic	Household adult member involved		father's involvement		Total children 2- up to 5 years	% of children left under the care of <10 year old child in the past week	Total Children under 5 years
	Mean No. of activities	% of children with four or more activities	Mean No. of activities	% of children with at least one activity			
Age in months							
24-35	4.4	66.7	1.8	50.0	36	25.0	36
36-47	5.0	82.7	1.6	48.1	52	17.3	52
48-59	5.2	88.6	2.5	61.4	44	20.5	44
Sex of child							
Male	4.9	81.6	1.6	46.1	76	16.1	93
Female	4.9	78.6	2.4	62.5	56	17.8	73
Residence							
Urban	5.0	82.4	3.0	76.5	17	10.3	29
Rural	4.9	80.0	1.8	49.6	115	14.5	186
Maternal education							
no schooling	4.0	66.7	1.0	16.7	6	0.0	7
primary	5.4	100.0	2.8	83.3	12	26.7	15
Secondary	4.7	80.6	1.9	50.0	36	24.5	49
Passed GCE (O/L)	5.1	78.6	1.2	42.9	42	8.0	50
Higher	5.0	83.3	2.9	66.7	24	28.6	28
Monthly household income							
< 9,000	4.5	76.0	1.6	40.0	50	20.6	63
9,000 – 13,999	5.0	77.1	1.8	54.3	35	11.4	44
14,000 – 19,999	5.4	90.9	2.4	68.2	22	7.7	26
20,000 – 31,999	5.2	77.8	2.8	72.2	18	22.7	22
≥ 32,000	5.4	100.0	1.4	40.0	5	42.9	7
Wealth quintile of household							
Poorest	4.7	76.1	1.4	37.0	46	16.7	78
Second	5.0	83.3	1.7	46.7	30	9.1	44
Middle	5.3	91.7	2.8	66.7	24	18.9	37
Fourth	4.8	68.2	2.5	77.3	22	2.7	37
Richest	5.0	90.0	1.8	60.0	10	26.3	19

Background characteristic	Household adult member involved		father's involvement		Total children 2- up to 5 years	% of children left under the care of <10 year old child in the past week	Total Children under 5 years
	Mean No. of activities	% of children with four or more activities	Mean No. of activities	% of children with at least one activity			
Overall	4.9	80.3	1.9	53.0	132	14.0	215

Table A 7 : Percentage of children aged 36-59 months who were attending an early childhood education programme, by background characteristics

Background characteristic	Percent attending Preschool or Daycare	Mean	SD	Total number of children
Age group in months				
36-47	50.0	4.3	1.3	52
48-59	63.6	3.9	1.7	44
Sex of child				
Male	58.5	4.0	1.6	53
Female	53.5	4.3	1.4	43
Residence				
Urban	38.5	4.6	0.9	13
Rural	59.0	4.1	1.5	83
Maternal education				
no schooling	40.0	2.5	0.7	5
primary	87.5	3.3	1.4	8
Secondary	46.2	4.4	1.2	26
Passed GCE (O/L)	65.7	4.3	1.6	35
Higher	46.7	3.7	1.6	15
Monthly household income				
< 9,000	60.0	4.2	1.1	35
9,000 – 13,999	51.7	4.3	1.6	29
14,000 – 19,999	55.6	3.5	2.1	18
20,000 – 31,999	50.0	3.8	1.6	10
≥ 32,000	100.0	5.0	0.0	3
Wealth quintile of household				
Poorest	53.1	4.4	1.5	32
Second	52.4	3.6	2.0	21
Middle	55.0	3.8	1.5	20

Background characteristic	Percent attending Preschool or Daycare	Mean	SD	Total number of children
Fourth	64.7	4.3	1.2	17
Richest	66.7	4.7	0.6	6
Overall	56.3	4.1	1.5	96

Tab A 8 : Percentage of children 5-10 years of age attending Primary School, by background characteristics

background characteristic	Percentage of children of primary school age currently attending Primary School	No. of children of primary school age (5-10 years)	% entered Grade 1	No. of Children Completed 5 yrs By 31st of Jan 2009
Sex of child				
Male	99.2	129	100.0	7
Female	99.1	109	92.9	14
Residence				
Urban	97.0	33	0.0	
Rural	99.5	205	95.2	21
Monthly household income				
< 9,000	98.5	66	50.0	2
9,000 – 13,999	100.0	50	100.0	2
14,000 – 19,999	100.0	33	100.0	2
20,000 – 31,999	94.4	18	100.0	1
≥ 32,000	100.0	5	0.0	
Wealth quintile of household				
Poorest	98.9	93	92.3	13
Second	97.7	44	100.0	4
Middle	100.0	43	100.0	2
Fourth	100.0	34	100.0	1
Richest	100.0	24	100.0	1
Overall	99.2	238	95.2	21

Table A 9 : Use of different types of play items by children under 5 years of age, according to background characteristics

Background characteristic	percentage of children who play with:					Total number of children <5 year
	household objects	outdoor material	homemade toys	ready-made toys	3 or more types of play items	
Age group in months						
24-35	88.9	88.9	91.7	66.7	83.3	36
36-47	98.1	92.3	84.6	59.6	84.6	52
48-59	86.4	88.6	79.5	47.7	70.5	44
Sex of child						
Male	92.1	89.5	78.9	48.7	73.7	76
Female	91.1	91.1	92.9	69.6	87.5	56
Residence	0.0	0.0	0.0	0.0	0.0	
Urban	94.1	100.0	88.2	58.8	82.4	17
Rural	91.3	88.7	84.3	57.4	79.1	115
Maternal education						
no schooling	100.0	100.0	100.0	66.7	100.0	6
primary	91.7	100.0	83.3	33.3	75.0	12
Secondary	97.2	91.7	88.9	75.0	88.9	36
Passed GCE (O/L)	90.5	90.5	76.2	47.6	71.4	42
Higher	87.5	79.2	87.5	54.2	75.0	24
Monthly household income						
< 9,000	92.0	94.0	90.0	60.0	82.0	50
9,000 – 13,999	94.3	94.3	82.9	57.1	82.9	35
14,000 – 19,999	95.5	81.8	72.7	59.1	77.3	22
20,000 – 31,999	88.9	83.3	94.4	50.0	72.2	18
≥ 32,000	60.0	80.0	60.0	60.0	60.0	5
Wealth quintile of household						
Poorest	97.8	95.7	84.8	63.0	87.0	46
Second	90.0	90.0	86.7	53.3	80.0	30
Middle	83.3	91.7	87.5	50.0	75.0	24
Fourth	90.9	77.3	81.8	45.5	68.2	22
Richest	90.0	90.0	80.0	90.0	80.0	10
Overall	91.7	90.2	84.8	57.6	79.5	132

Table A 10 : Percentage of children less than 5 years of age who received care at child welfare clinic, by background characteristics

background characteristic		Availability of CHDR	Children Attended CWC	% of children whose mothers received advice on			% Received Thriposha*	Total No. of Children
		%	%	Growth	Nutritional status	ECCD		
Age group in months	<6	86.8	87.1	82.1	78.6	70.4	-	
	6-11	75.0	100.0	95.7	95.7	90.9	7.1	28
	12-23	86.3	97.8	93.5	95.6	93.0	13.7	51
	24-35	87.8	95.6	95.0	94.9	87.2	6.1	49
	36-47	84.5	94.3	90.7	87.0	82.4	22.4	58
	48-59	91.5	89.4	87.5	85.0	82.5	10.6	47
Sex of child	Male	85.2	96.3	93.7	91.3	85.8	11.5	131
	Female	86.9	90.9	87.6	87.4	83.3	14.7	102
		0.0	0.0	0.0	0.0	0.0	0.0	
Residence	Urban	92.5	94.9	91.2	93.8	93.1	5.9	34
	Rural	84.8	93.7	90.9	88.8	83.4	14.1	199
Maternal education**	no schooling	63.6	100.0	100.0	100.0	100.0	11.1	9
	primary	88.9	88.2	92.9	85.7	85.7	11.1	18
	Secondary	82.7	95.6	90.6	89.1	82.0	10.9	64
	Passed GCE (O/L)	92.7	94.9	92.0	90.7	86.5	18.9	74
	Higher	90.4	93.6	91.5	91.1	83.7	11.9	42
Monthly household income*** (	up to 9000	86.2	93.2	87.1	85.9	81.0	7.4	81
	9000-13999	88.6	91.2	89.4	86.4	79.0	11.9	67
	14000-19999	85.4	95.5	95.1	92.5	87.5	26.2	42
	20000-31999	81.8	100.0	100.0	100.0	100.0	14.3	28
	32000 +	72.7	90.0	88.9	100.0	100.0	10.0	10
Wealth quintile of household	Poorest	82.6	95.2	91.4	90.1	80.8	9.5	84
	Second	86.8	92.1	90.0	88.3	86.2	15.4	52
	Middle	84.4	92.3	89.2	89.2	82.9	12.8	39
	Fourth	93.5	95.2	95.0	89.7	89.7	17.1	41
	Richest	85.0	94.1	84.6	91.7	91.7	11.8	17
Overall		86.0	93.9	90.9	89.5	84.7	12.9	233

Table A 11 : Percentage distribution of children who received Vitamin A mega dose supplement at 9, 18 and 36 months, by background characteristics.

background characteristic		Children 9-59 months		Children 18-59 months		Children 36-59months			Of the children 36-59, percentage never received Vit A.
		Number of children	% received Vit A at 9 months	Number of children	% received Vit A at 18 months	Number of children	% received Vit A at 36 month	% received 3 doses of Vit A	
Sex of child	Male	104	69.2	84	70.2	50	62.0	58.3	25.5
	Female	88	64.8	69	66.7	42	71.4	66.7	18.6
Residence	Urban	31	93.5	22	95.5	14	85.7	80.0	0.0
	Rural	161	62.1	131	64.1	78	62.8	58.7	26.3
Maternal education	no schooling	6	50.0	5	60.0	4	50.0	40.0	25.0
	primary	17	52.9	14	50.0	7	42.9	42.9	42.9
	Secondary	53	73.6	39	82.1	25	80.0	79.2	19.2
	Passed GCE (O/L)	67	70.1	56	75.0	33	72.7	66.7	11.4
	Higher	31	61.3	24	50.0	16	50.0	42.9	40.0
Monthly household income	up to 9000	66	57.6	55	63.6	34	61.8	54.5	27.8
	9000-13999	57	68.4	43	72.1	28	67.9	64.3	17.2
	14000-19999	34	73.5	26	76.9	17	70.6	68.8	17.6
	20000-31999	23	73.9	20	70.0	9	77.8	77.8	22.2
	32000 +	7	71.4	5	60.0	3	66.7	66.7	50.0
Wealth quintile of household	Poorest	68	64.7	56	66.1	31	54.8	50.0	25.8
	Second	44	72.7	34	73.5	21	71.4	63.6	17.4
	Middle	33	51.5	27	59.3	18	66.7	66.7	33.3
	Fourth	33	78.8	27	77.8	17	82.4	81.3	5.9
	Richest	14	71.4	9	66.7	5	60.0	50.0	40.0
Overall		192	67.2	153	68.6	92	66.3	62.2	22.3

Table A 12 : Source of care provider for children who had diarrhoea or respiratory illness during 2 weeks preceding survey, by background characteristics

background characteristic	Source of provider (%)	Number of children who

		Gov. sector	Private sector	Other	had diarrhoea or respiratory illness in previous 2 weeks
Age of child in months	<6	85.7	14.3	0.0	7
	6-11	57.1	14.3	14.3	9
	12-23	53.3	40.0	6.7	20
	24-35	53.8	38.5	7.7	17
	36-47	56.5	39.1	4.3	29
	48-59	33.3	60.0	0.0	16
Sex of child	Male	54.5	38.6	2.3	49
	Female	52.8	38.9	8.3	49
Residence	Urban	30.8	69.2	0.0	15
	Rural	58.2	32.8	6.0	83
Mother's education	No schooling	100.0	0.0	0.0	5
	Primary	42.9	42.9	0.0	10
	Secondary	72.0	24.0	4.0	29
	Passed O' Level	40.9	45.5	9.1	29
	Higher	41.7	58.3	0.0	15
Monthly household income	up to 9000	76.9	15.4	3.8	32
	9000-13999	53.8	34.6	7.7	31
	14000-19999	50.0	50.0	0.0	18
	20000-31999	14.3	85.7	0.0	8
	32000 +	0.0	83.3	16.7	8
Wealth quintile of household	Poorest	61.3	29.0	3.2	37
	Second	82.4	11.8	5.9	22
	Middle	42.9	57.1	0.0	15
	Fourth	28.6	57.1	14.3	17
	Richest	0.0	100.0	0.0	7
Overall		53.8	38.8	5.0	98

Table A 13 : Percent of pregnant mothers who attended antenatal clinics, and who received "poshana malla", "thriposha" and Iron tablets, by background characteristics.

background characteristic	Regular ANC Visits*	"poshana malla",	"thriposha"	Iron tablets	Total No. of

		Percent	Total No of Mothers	Percent	Total No of Mothers	Percent	Total No of Mothers	percent received tablets	Of the received, percent took daily	Total No of Mothers	Pregnant women
Residence	Urban	100.0	5.0	0.0	3.0	33.3	3.0	80.0	25.0	5.0	6.0
	Rural	91.7	24.0	16.0	25.0	92.0	25.0	91.7	86.4	24.0	25.0
Maternal education	no schooling	100.0	2.0	0.0	2.0	100.0	2.0	100.0	50.0	2.0	2.0
	primary	75.0	4.0	0.0	4.0	100.0	4.0	50.0	100.0	4.0	4.0
	Secondary	100.0	6.0	33.3	6.0	100.0	6.0	100.0	100.0	6.0	6.0
	Passed GCE (O/L)	100.0	7.0	14.3	7.0	71.4	7.0	85.7	66.7	7.0	7.0
	Higher	100.0	5.0	20.0	5.0	80.0	5.0	100.0	80.0	5.0	6.0
Monthly household income	up to 9000	81.8	11.0	18.2	11.0	90.9	11.0	81.8	88.9	11.0	11.0
	9000-13999	100.0	7.0	12.5	8.0	87.5	8.0	85.7	100.0	7.0	8.0
	14000-19999	100.0	4.0	0.0	4.0	75.0	4.0	100.0	75.0	4.0	4.0
	20000-31999	100.0	4.0	50.0	2.0	100.0	2.0	100.0	25.0	4.0	5.0
	32000 +	100.0	1.0	0.0	1.0	0.0	1.0	100.0	100.0	1.0	1.0
Wealth quintile of household	Poorest	81.8	11.0	18.2	11.0	90.9	11.0	81.8	77.8	11.0	11.0
	Second	100.0	6.0	0.0	6.0	83.3	6.0	83.3	80.0	6.0	7.0
	Middle	100.0	6.0	16.7	6.0	83.3	6.0	100.0	83.3	6.0	6.0
	Fourth	100.0	2.0	50.0	2.0	100.0	2.0	100.0	100.0	2.0	3.0
	Richest	100.0	4.0	0.0	3.0	66.7	3.0	100.0	50.0	4.0	4.0
Overall		93.1	29.0	14.3	28.0	85.7	28.0	89.7	76.9	29.0	31.0

*(First visits were excluded)

Table A 14 : Percentage of lactating mothers who received "thriposha" and Vitamin A by background characteristics

background characteristic		"thriposha" (child <6 months)		Vitamin A mega dose (child <24 months)	
		Percent	Total No of Women	Percent	Total No of Women
Sector	Urban	50.0	2	85.7	7
	Rural	78.6	28	90.2	61
Maternal education	no schooling	50.0	2	100.0	7
	primary	0.0		100.0	1
	Secondary	60.0	10	88.5	26
	Passed GCE (O/L)	87.5	8	88.9	18
	Higher	100.0	7	93.3	15

background characteristic		"thriposha" (child <6 months)		Vitamin A mega dose (child <24 months)	
		Percent	Total No of Women	Percent	Total No of Women
Monthly household income	up to 9000	83.3	12	91.3	23
	9000-13999	63.6	11	84.0	25
	14000-19999	80.0	5	88.9	9
	20000-31999	100.0	2	100.0	6
	32000 +	0.0		100.0	4
Wealth quintile of household	Poorest	87.5	8	75.0	24
	Second	84.6	13	95.0	20
	Middle	60.0	5	100.0	11
	Fourth	66.7	3	100.0	8
	Richest	0.0	1	100.0	5
National		76.7	30	89.7	68

Table A 15 : "Samurdhi" beneficiaries" among women 15-49 years by background characteristics

background characteristic		Pregnant		Lactating		Non-pregnant & non-lactating	
		Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Residence	Urban	0.0	6	7.7	13	14.3	14
	Rural	8.0	25	23.8	84	27.4	84
Maternal education	no schooling	0.0	2	0.0	3	25.0	4
	primary	25.0	4	40.0	5	40.0	10
	Secondary	16.7	6	21.9	32	48.4	31
	Passed GCE (O/L)	0.0	7	27.6	29	10.8	37
	Higher	0.0	6	9.1	22	8.3	12
Monthly household income	up to 9000	0.0	11	32.1	28	40.0	35
	9000-13999	12.5	8	19.4	36	24.0	25
	14000-19999	0.0	4	23.1	13	10.0	20
	20000-31999	0.0	5	25.0	8	18.2	11
	32000 +	0.0	1	0.0	5	33.3	3
Wealth quintile of household	Poorest	9.1	11	35.5	31	25.0	28
	Second	14.3	7	11.1	27	54.2	24
	Middle	0.0	6	22.2	18	5.6	18
	Fourth	0.0	3	7.7	13	11.1	18
	Richest	0.0	4	25.0	8	20.0	10

background characteristic	Pregnant		Lactating		Non-pregnant & non-lactating	
	Percent	Total No of Women	Percent	Total No of Women	Percent	Total No of Women
Overall	6.5	31	21.6	97	25.5	98

Table A 16 : Distribution of households according to main source of drinking water, and households with improved source of water, by background characteristics

Background Characteristics		Main source of drinking water: Improved sources: Piped into dwelling	Piped into yard or plot	Public tap /standpipe	Tubewell/ borehole	Protected well	Protected spring	Rainwater collection	Bottled water	Unimproved sources	Improved source of drinking water*
Sector	Urban	17.7	1.6	17.7	8.1	24.2	0.0	3.2	0.0	27.4	72.6
	Rural	7.7	1.1	11.9	8.8	45.6	0.0	0.5	0.0	24.4	75.6
Income group	< 9,000	9.8	1.2	16.6	9.2	38.0	0.0	0.0	0.0	25.2	74.8
	9,000 -13,999	8.8	0.9	14.0	7.9	43.9	0.0	1.8	0.0	22.8	77.2
	14,000 – 19,999	10.3	1.3	6.4	10.3	41.0	0.0	0.0	0.0	30.8	69.2
	20,000 – 31,999	3.8	0.0	7.7	7.7	50.0	0.0	1.9	0.0	28.8	71.2
	≥ 32,000	15.8	5.3	0.0	5.3	57.9	0.0	5.3	0.0	10.5	89.5
Wealth index quintiles	Poorest	8.1	1.6	20.2	12.1	32.3	0.0	0.0	0.0	25.8	74.2
	Second	1.8	0.9	13.5	8.1	46.8	0.0	0.9	0.0	27.9	72.1
	Middle	4.6	1.1	14.9	9.2	44.8	0.0	3.4	0.0	21.8	78.2
	Fourth	17.6	0.0	4.1	6.8	45.9	0.0	0.0	0.0	25.7	74.3
	Richest	25.6	2.3	0.0	2.3	51.2	0.0	0.0	0.0	18.6	81.4
Overall		9.1	1.1	12.8	8.7	42.6	0.0	0.9	0.0	24.8	75.2

Table A 17 : Distribution of households according to drinking water treatment methods used, by background characteristics*

Background Characteristics		Water treatment method used in the household: None	Boil	Add bleach/chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	Appropriate water treatment method *	Total No of household
Sector	Urban	11.3	41.9	48.4	21.0	22.6	0.0	38.7	9.7	71.0	62
	Rural	14.9	44.3	33.2	33.4	12.2	1.9	23.6	3.4	63.9	377
Wealth index quintiles	Poorest	16.1	33.1	21.8	37.9	7.3	0.8	21.0	4.0	52.4	124
	Second	13.5	45.9	37.8	38.7	10.8	4.5	29.7	8.1	65.8	111
	Middle	18.6	48.3	39.1	25.3	10.3	1.1	23.0	3.4	67.8	87
	Fourth	10.8	48.6	36.5	25.7	24.3	0.0	32.4	1.4	70.3	74

Background Characteristics		Water treatment method used in the household								Appropriate water treatment method *	Total No of household
		None	Boil	Add bleach/chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other		
	Richest	9.3	53.5	58.1	18.6	27.9	0.0	23.3	2.3	83.7	43
Income group	< 9,000	14.1	44.2	29.4	35.0	12.9	3.7	24.5	6.7	58.3	163
	9,000 – 13,999	15.0	42.1	38.6	29.8	5.3	0.0	25.4	3.5	65.8	114
	14,000 – 19,999	15.4	37.2	29.5	38.5	19.2	0.0	23.1	1.3	62.8	78
	20,000 – 31,999	13.5	48.1	42.3	17.3	23.1	0.0	28.8	1.9	76.9	52
	≥ 32,000	10.5	68.4	52.6	15.8	26.3	0.0	31.6	5.3	84.2	19
Overall		14.4	44.0	35.3	31.7	13.7	1.6	25.7	4.3	64.9	439

Table A 18 : Distribution of household members according to type of toilet used by the household, by background characteristics

Background Characteristics		Type of toilet facility used by household					Percentage of population using sanitary means of excreta disposal *	Number of households
		Flush	Pit	Temporary	No toilet	Missing		
Sector	Urban	43.5	56.5	0.0	0.0	0.0	43.5	62
	Rural	54.4	35.0	5.3	5.3	0.0	54.4	377
Wealth index quintiles	Poorest	37.9	32.3	16.1	13.7	0.0	37.9	124
	Second	43.2	54.1	0.0	2.7	0.0	43.2	111
	Middle	50.6	49.4	0.0	0.0	0.0	50.6	87
	Fourth	73.0	27.0	0.0	0.0	0.0	73.0	74
	Richest	90.7	9.3	0.0	0.0	0.0	90.7	43
Income group	< 9,000	49.1	35.6	7.4	8.0	0.0	49.1	163
	9,000 – 13,999	53.5	39.5	4.4	2.6	0.0	53.5	114
	14,000 – 19,999	53.8	41.0	3.8	1.3	0.0	53.8	78
	20,000 – 31,999	57.7	40.4	0.0	1.9	0.0	57.7	52
	≥ 32,000	63.2	36.8	0.0	0.0	0.0	63.2	19

Background Characteristics	Type of toilet facility used by household					Percentage of population using sanitary means of excreta disposal *	Number of households
	Flush	Pit	Temporary	No toilet	Missing		
Overall	52.8	38.0	4.6	4.6	0.0	52.8	439

Table A 19 : Distribution of households using both improved drinking water sources and sanitary means of excreta disposal, by background characteristics

Background Characteristics		Percentage of household population using improved sources of drinking water *	Percentage of household population using sanitary means of excreta disposal **	Percentage of household population using improved sources of drinking water and using sanitary means of excreta disposal	Number of household
Sector	Urban	72.6	43.5	37.1	62
	Rural	75.6	54.4	40.1	377
Wealth index quintiles	Poorest	74.2	37.9	29	124
	Second	72.1	43.2	29.7	111
	Middle	78.2	50.6	35.6	87
	Fourth	74.3	73	55.4	74
	Richest	81.4	90.7	76.7	43
Income group	< 9,000	74.8	49.1	35.6	163
	9,000 – 13,999	77.2	53.5	40.4	114
	14,000 – 19,999	69.2	53.8	39.7	78
	20,000 – 31,999	71.2	57.7	40.4	52
	≥ 32,000	89.5	63.2	57.9	19
Overall		75.2	52.8	39.6	439

Table A 20 : Distribution of households according to duration to and from the source of drinking water, by background characteristics.

Background Characteristics		Time to source of drinking water				Mean time to source of drinking water (excluding those on premises)	Number of households
		Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	More than 30 minutes		
Sector	Urban	19.4	45.2	9.7	8.1	9.3	62
	Rural	8.8	75.6	6.9	6.4	8.2	377
Wealth index quintiles	Poorest	9.7	66.9	10.5	11.3	10.9	124
	Second	2.7	73.9	9.9	9.0	9.7	111

Background Characteristics		Time to source of drinking water				Mean time to source of drinking water (excluding those on premises)	Number of households
		Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	More than 30 minutes		
	Middle	5.7	80.5	4.6	4.6	6.7	87
	Fourth	17.6	73.0	2.7	1.4	5.1	74
	Richest	27.9	55.8	4.7	0.0	5.4	43
Income group	< 9,000	11.0	70.6	9.8	6.7	9.2	163
	9,000 – 13,999	9.6	70.2	6.1	9.6	9.3	114
	14,000 – 19,999	11.5	69.2	6.4	7.7	7.9	78
	20,000 – 31,999	3.8	86.5	1.9	1.9	5.1	52
	≥ 32,000	21.1	63.2	0.0	0.0	4.1	19
Overall %		10.3	71.3	7.3	6.6	8.3	439

Table A 21 : Distribution of households according to the person collecting water used in the household, by background characteristics

Background Characteristics		Person collecting drinking water					Number of households
		Adult man	Adult woman	Male child (under 15)	Female child (under 15)	Other	
Sector	Urban	40.4	59.6	0.0	0.0		62
	Rural	22.6	75.8	1.1	0.6		377
Wealth index quintiles	Poorest	22.5	74.2	1.7	1.7		124
	Second	33.7	64.4	1.9	0.0		111
	Middle	29.3	70.7	0.0	0.0		87
	Fourth	14.9	85.1	0.0	0.0		74
	Richest	12.1	87.9	0.0	0.0		43
Income group	< 9,000	24.1	72.2	2.5	1.3		163
	9,000 – 13,999	30.8	69.2	0.0	0.0		114
	14,000 – 19,999	23.2	76.8	0.0	0.0		78
	20,000 – 31,999	14.6	85.4	0.0	0.0		52
	≥ 32,000	28.6	71.4	0.0	0.0		19

Background Characteristics	Person collecting drinking water					Number of households
	Adult man	Adult woman	Male child (under 15)	Female child (under 15)	Other	
Overall	24.6	73.9	1.0	0.5		439

Table A 22: Proportion of households by type of foods consumed at least once in the day or night preceding the interview , by to background characteristics

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry/fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
No. of members in family											
1-3	100.0	71.3	65.3	89.4	69.7	71.4	56.6	51.6	76.5	98.4	99.2
4-6	99.6	71.4	64.4	91.5	74.6	77.3	57.2	48.4	78.2	99.6	100.0
≥ 7	98.1	84.0	67.9	92.5	76.9	70.6	52.8	45.2	91.7	98.1	100.0
Sector											
Urban	100.0	71.2	43.5	96.8	80.6	70.0	41.7	33.3	90.2	100.0	100.0
Rural	99.5	73.3	68.8	90.1	72.2	75.6	59.1	51.3	77.4	98.9	99.7
Religion of HH Head											
Budddhist	100.0	33.3	57.9	91.7	65.4	89.3	41.5	92.7	95.0	100.0	100.0
Hindu	99.3	77.2	70.0	91.3	73.2	70.4	60.0	44.2	74.7	98.5	99.6
Islam	100.0	75.5	48.1	90.7	79.6	88.9	47.2	39.5	78.0	100.0	100.0
Catholic	100.0	73.3	65.5	93.3	80.6	64.3	65.5	41.7	82.8	100.0	100.0
Other	100.0	100.0	0.0	0.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0
Monthly household income											
< 9,000	99.4	78.9	70.5	86.9	65.3	74.5	61.8	40.4	72.7	99.4	100.0
9,000 – 13,999	99.1	67.3	57.5	93.9	73.0	74.5	55.2	45.7	81.6	98.2	99.1
14,000 – 19,999	100.0	76.2	63.2	90.9	83.3	72.6	50.7	66.7	87.8	98.7	100.0
20,000 – 31,999	100.0	66.7	72.5	94.2	82.0	84.0	50.0	56.8	82.7	100.0	100.0
≥ 32,000	100.0	66.7	73.7	100.0	78.9	72.2	66.7	42.9	83.3	100.0	100.0
Wealth quintile											
Poorest	98.4	72.3	63.0	86.8	62.0	71.8	51.8	40.7	75.5	98.3	99.2
Second	100.0	71.6	64.2	92.7	72.0	74.0	58.7	44.0	79.8	99.1	100.0
Middle	100.0	77.5	70.9	92.0	74.7	70.9	57.0	52.4	85.2	100.0	100.0
Fourth	100.0	71.0	61.6	91.8	86.1	81.4	58.5	52.7	71.0	100.0	100.0
Richest	100.0	72.2	67.4	95.3	82.9	81.0	60.0	67.6	90.5	97.7	100.0
Overall %											

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry/fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
Total No.	99.5	73.0	65.1	91.0	73.5	74.8	56.5	48.9	79.3	99.1	99.8

Table A 23 : Proportion of households by type of foods consumed in 5 days and more preceding the interview, *by* background characteristics

Background Characteristic	Food Groups										
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry/fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
No. of members in family											
1-3	96.8	25.0	13.6	70.4	25.0	29.6	14.4	29.6	58.4	95.9	96.7
4-6	94.2	21.2	16.2	65.4	31.9	33.5	20.4	23.9	56.0	92.3	93.1
≥ 7	90.6	43.4	15.1	66.0	30.2	37.7	32.1	32.1	54.7	92.5	92.5
Sector											
Urban	98.4	40.3	6.5	79.0	51.6	29.0	21.0	17.7	83.9	98.4	98.4
Rural	93.9	22.5	16.8	64.9	26.1	33.5	19.9	28.0	52.0	92.5	93.3
Religion of HH Head											
Budddhist	100.0	3.3	11.7	90.0	21.7	55.0	10.0	60.0	85.0	98.3	98.3
Hindu	92.8	28.5	17.6	62.0	29.1	29.7	24.4	21.1	49.1	91.4	92.8
Islam	98.1	27.8	5.6	63.0	44.4	24.1	13.0	20.4	53.7	96.3	98.1
Catholic	90.3	29.0	25.8	77.4	35.5	29.0	19.4	26.7	66.7	93.1	86.2
Other	100.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	100.0
Monthly household income											
< 9,000	93.2	26.3	17.9	55.6	21.7	30.2	22.2	20.5	47.8	90.6	93.1
9,000 – 13,999	93.9	25.4	12.3	73.7	31.6	28.1	20.2	26.3	58.8	93.8	94.7
14,000 – 19,999	96.2	20.5	11.5	74.4	33.3	37.2	15.4	34.6	62.8	96.2	94.9
20,000 – 31,999	98.1	28.8	19.2	73.1	34.6	44.2	25.0	34.6	67.3	98.1	94.2
≥ 32,000	94.7	15.8	26.3	68.4	57.9	42.1	15.8	26.3	78.9	89.5	94.7
Wealth quintile											
Poorest	91.1	24.4	18.5	63.7	21.8	27.4	17.7	22.0	50.4	90.2	92.7
Second	91.7	23.9	9.1	68.2	22.0	34.5	19.1	26.4	61.8	91.7	91.7
Middle	98.9	31.0	13.8	72.4	36.8	35.6	27.6	26.4	57.5	97.7	97.7
Fourth	95.9	23.0	18.9	63.5	33.8	33.8	21.6	29.7	54.1	93.2	91.9
Richest	100.0	20.9	18.6	67.4	51.2	37.2	11.6	34.9	62.8	97.7	100.0
Overall %	94.5	25.0	15.3	66.9	29.7	32.9	20.1	26.5	56.5	93.3	94.0
Total No.											

Table A 24 : Percentage of household members (in broad age groups) who consume three or more main meals a day, by background characteristics

Background Characteristic	5-17 years		18-59 years		60 years or above	
	male	female	male	female	male	female
No. of members in family						
1-3	100.0	94.1	90.4	90.0	83.3	91.7
4-6	97.8	98.4	94.4	94.9	86.7	88.2
≥ 7	94.4	100.0	97.6	93.0	100.0	100.0
Sector						
Urban	100.0	100.0	100.0	100.0	83.3	83.3
Rural	97.0	98.0	92.7	92.4	86.4	92.6
Monthly household income (LKR)						
< 9,000	92.6	96.9	86.4	86.3	75.0	77.8
9,000 – 13,999	100.0	98.1	96.9	96.0	100.0	100.0
14,000 – 19,999	100.0	100.0	98.5	98.6	100.0	100.0
20,000 – 31,999	100.0	100.0	97.7	97.8	100.0	100.0
≥ 32,000	100.0	100.0	100.0	100.0	66.7	66.7
Wealth quintile						
Poorest	95.5	95.1	89.1	87.7	75.0	75.0
Second	97.0	100.0	96.4	96.6	66.7	88.9
Middle	97.6	100.0	94.4	93.4	100.0	100.0
Fourth	100.0	100.0	96.9	96.9	85.7	75.0
Richest	100.0	100.0	94.9	97.3	100.0	100.0
Overall %	97.4	98.3	93.7	93.4	85.7	90.9

Table A 25 : Household dietary diversity score according to background characteristics

Background Characteristic	Household diversity score		% of households yet to achieve the target	No of households
	mean	SD		
No. of members in Household				
1-3	8.0	1.9	55.2	125
4-6	8.1	1.8	55.9	261
≥ 7	8.5	1.4	47.2	53
Sector				
Urban	8.1	1.4	53.2	62

Rural	8.1	1.9	54.9	377
Religion of the HH Head				
Budddhist	7.9	1.3	63.3	60
Hindu	8.1	1.9	53.0	279
Islam	8.3	1.6	51.9	54
Catholic	8.1	2.2	50.0	32
Other	7.0	0.0	100.0	1
Monthly household income				
< 9,000	8.0	2.0	56.4	163
9,000 – 13,999	8.1	1.7	55.3	114
14,000 – 19,999	8.3	1.8	56.4	78
20,000 – 31,999	8.6	1.3	46.2	52
≥ 32,000	8.6	1.3	36.8	19
Wealth quintile				
Poorest	7.6	2.0	68.5	124
Second	8.1	1.8	49.5	111
Middle	8.4	1.5	49.4	87
Fourth	8.2	1.8	55.4	74
Richest	8.8	1.6	37.2	43
overall	8.1	1.8	54.7	439

Table A 26 :. Average monthly expenditure for food, services, health, education and productive assets, by background characteristics

Background characteristic	Average monthly expenditure in LKR							Number of households
	food	liquor/tobacco	Utility services	health	education	productive assets	Total	
No. of members in family								
1-3	65.8	9.0	13.5	7.7	3.1	0.9	18941	52
4-6	61.7	4.7	12.0	6.5	4.3	10.8	23335	146
≥ 7	53.2	2.5	11.8	5.9	4.4	22.2	36839	25
Residence								

Background characteristic	Average monthly expenditure in LKR							Number of households
	food	liquor/tobacco	Utility services	health	education	productive assets	Total	
Urban	58.6	2.4	16.2	7.1	5.5	10.2	29447	30
Rural	57.4	4.9	10.7	6.1	3.9	17.0	24575	193
Religion of household Head								
Buddhist	69.5	6.7	11.7	2.0	4.1	6.0	16629	27
Hindu	66.2	5.3	13.7	7.4	5.4	1.9	22434	141
Islam	51.5	2.3	11.2	6.6	3.0	25.3	31926	32
Catholic and other Christian	39.2	3.7	7.1	4.4	1.5	44.2	37750	13
Education of household Head								
No schooling	54.9	6.3	7.8	8.7	3.1	19.2	29116	11
Primary	77.1	6.9	7.3	5.3	3.3	0.0	16815	17
Secondary	56.6	4.7	9.8	6.2	3.5	19.2	26943	84
Passed O' Level	65.9	5.0	15.0	5.8	4.9	3.4	20715	70
Higher	58.7	5.2	17.3	9.7	5.6	3.5	24018	28
Monthly household income								
< 9,000	49.7	4.3	8.4	6.2	2.8	28.6	29591	80
9,000 – 13,999	66.9	5.8	11.8	5.7	4.0	5.7	20935	65
14,000 – 19,999	65.4	2.7	14.5	7.8	5.8	3.7	22498	37
20,000 – 31,999	63.0	1.2	16.1	5.8	6.2	7.7	24928	26
≥ 32,000	55.4	6.7	21.4	7.3	9.2	0.0	27636	10
Wealth quintile								
Poorest	61.6	5.6	8.5	5.5	3.2	15.5	23208	75
Second	51.0	3.3	8.8	5.5	3.3	28.0	26454	57
Middle	64.3	2.2	15.7	8.7	6.9	2.2	23037	38
Fourth	65.7	7.0	15.2	6.7	4.7	0.7	24477	37
Richest	54.3	0.0	18.1	7.5	5.2	15.0	27810	16
Overall	57.4	4.6	11.5	6.2	4	16.1	25315	223

Table A 27 : Food groups by the main and secondary sources

Background Characteristic	Food Groups											
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry	fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
Main source												
Own production	12.2	0.3	3.0	10.1	11.9	0.6	0.5	17.4	6.9	1.5	10.4	0.2

Background Characteristic	Food Groups											
	Rice	Wheat	Nuts/pulses	vegetables	fruits	meat/poultry	fish	eggs	milk/diary products	oils/fats	Coconut	Sugar
Purchase	83.7	94.9	92.5	86.6	84.9	92.5	95.5	78.6	85.8	93.3	85.0	94.7
Purchase on credit	0.9	1.3	1.2	0.2	0.2	0.0	0.5	0.5	0.0	0.5	0.5	0.7
Traded goods or services	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Borrowed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gift from family or relatives	1.4	0.5	0.5	1.4	0.7	0.0	0.5	0.7	0.3	0.7	1.4	0.5
Food aid	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Cash assistance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table A 28 : . Percent of households reported food had run out at some time during the previous 12 months, and months of adequate household food provisioning (MAHFP) by background characteristics

Background characteristic	% household food had run out during past 12 months	Average MAHFP	% yet to acheive the target	No. of Households
No. of members in family				
1-3	39.2	11.0	8.4	125
4-6	37.2	11.0	8.0	261
≥ 7	32.1	11.2	6.6	53
Residence				
Urban	19.4	11.5	3.8	62
Rural	40.1	11.0	8.7	377
Education of household Head				
No schooling	16.7	11.4	5.1	18
Primary	43.3	11.0	8.6	60
Secondary	41.4	10.9	9.1	152
Passed O' Level	39.0	11.0	8.2	123
Higher	24.1	11.3	5.7	54
Monthly household income				
< 9,000	49.7	10.6	12.1	163
9,000 – 13,999	41.2	11.1	7.2	114
14,000 – 19,999	25.6	11.5	4.2	78
20,000 – 31,999	17.3	11.5	3.8	52
≥ 32,000	0.0	12.0	0.0	19
Wealth quintile				
Poorest	52.4	10.6	12.0	124
Second	39.6	10.9	8.9	111

Background characteristic	% household food had run out during past 12 months	Average MAHFP	% yet to acheive the target	No. of Households
Middle	32.2	11.3	6.1	87
Fourth	25.7	11.4	4.8	74
Richest	16.3	11.6	3.1	43
Overall	37.1	11.0	8.0	439

Table A 29 : 2 Current food stock duration, and size compared to last year, by background characteristics

background characteristic	Size of food stock compared to last year				*mean No. of days current food stock last*	*No. of households*
	more (%)	same (%)	less (%)	much less (%)		
No. of members in family						
1-3	7.5	39.6	41.5	11.3	6.15	106
4-6	6.2	46.5	35.8	11.5	6.69	226
≥ 7	4.8	35.7	50.0	9.5	6.32	42
Sector						
Urban	3.9	52.9	37.3	5.9	8.09	51
Rural	6.8	41.8	39.3	12.1	6.23	323
Education of household Head						
No schooling	0.0	15.4	15.4	69.2	1.43	13
Primary	5.9	41.2	37.3	15.7	4.49	51
Secondary	5.9	41.9	47.1	5.1	5.40	136
Passed O' Level	7.1	44.6	36.6	11.6	8.38	112
Higher	2.4	43.9	41.5	12.2	10.10	41
Monthly household income						
< 9,000	2.2	36.8	47.1	14.0	4.76	136
9,000 – 13,999	5.3	41.1	38.9	14.7	5.03	95
14,000 – 19,999	11.9	46.3	37.3	4.5	7.74	67
20,000 – 31,999	12.8	53.2	25.5	8.5	10.20	47
≥ 32,000	11.1	50.0	33.3	5.6	11.26	18
Wealth quintile						
Poorest	3.7	44.9	36.4	15.0	4.06	107
Second	4.4	40.0	41.1	14.4	4.85	90
Middle	9.9	45.1	38.0	7.0	8.01	71
Fourth	7.6	45.5	39.4	7.6	9.19	66
Richest	10.0	40.0	42.5	7.5	9.79	40

background characteristic	Size of food stock compared to last year				*mean No. of days current food stock last*	*No. of households*
	more (%)	same (%)	less (%)	much less (%)		
Overall	6.4	43.3	39.0	11.2	6.49	374

Table A 30 : Average number of times a household received food aid in the last 6 months, by background characteristics

Characteristic	Not received food aids	Type of food aid (mean no. of times per 6 months)								
		WFP /GA	Samurdhi	Food Basket	School feeding	CSB	Thriposha	Food for work	Other	No. of household
No. of members in family										
1-3	77.6	6.0	12.3	6.0	0.0	3.8	3.9	0.0	4.0	125.0
4-6	62.8	2.7	4.4	1.8	104.3	4.2	4.3	1.0	2.8	261.0
≥ 7	73.6	0.0	27.3	0.0	44.0	2.0	2.0	0.0	0.0	53.0
Sector										
Urban	82.3	2.0	4.0	0.0	0.0	1.0	1.3	0.0	0.0	62.0
Rural	66.0	3.5	8.9	2.5	86.2	4.3	4.4	1.0	3.0	377.0
Monthly household income										
< 9,000	68.1	3.2	5.1	1.7	120.0	2.8	2.9	1.0	3.4	163.0
9,000 – 13,999	72.8	3.0	4.0	6.0	44.0	3.5	3.7	0.0	0.0	114.0
14,000 – 19,999	66.7	3.0	3.0	1.0	150.0	5.1	4.0	0.0	0.0	78.0
20,000 – 31,999	57.7	0.0	27.1	0.0	6.0	3.5	6.8	0.0	1.0	52.0
≥ 32,000	78.9	0.0	5.0	0.0	4.0	0.0	1.0	0.0	0.0	19.0
Wealth index quintile										
Poorest	58.9	3.5	4.2	2.8	91.5	5.4	3.7	1.0	3.1	124.0
Second	64.9	3.0	9.8	3.0	122.0	3.0	5.0	0.0	0.0	111.0
Middle	79.3	2.0	26.3	0.0	120.0	3.5	3.6	0.0	6.0	87.0
Fourth	75.7	0.0	4.1	0.0	5.0	1.0	3.6	0.0	1.0	74.0
Richest	69.8	0.0	3.8	1.0	0.0	6.0	3.0	0.0	0.0	43.0
Overall	68.3	3.1	8.8	2.5	86.2	4.0	4.0	1.0	3.0	439.0

Table A 31 : Percent of households with coping strategy adopted in the previous 30 days, with its frequency

Coping Strategy	*% of households adopted strategy*				Total households
	Never	Ever			
		Once in a while (1-2 per week)	Pretty often (3-6 per week)	Daily (>24 days)	
Food-related coping strategy					
a. Relied on less preferred food	74.3	18.8	5.7	1.1	436
b. Borrowed food	76.2	16.9	5.3	1.6	437
c. Purchased food on credit	73.3	17.8	5.9	3.0	439
d. Consumed seeds held for next season	89.7	7.8	2.3	0.2	435
e. Reduced meal size	83.7	12.4	2.8	1.1	435
f. Reduced number of meals per day	87.6	9.2	2.1	1.2	434
g. Restricted consumption for adults	92.2	5.8	1.6	0.5	434
h. Sent children to live with relatives	0.2	0.5	1.4	97.9	434
i. Reduced expenditure on health and education	0.9	0.5	4.1	94.5	434
	% of Households				Total households
Non-food coping strategies	**No**	**Yes**			
j. Sold livestock	95.9	4.1			434
k. Pawned jewellary	82.0	18.0			433
l. Sold agricultural tools, seeds	94.9	5.1			434
m. Sold other assets	97.0	3.0			434
n. Used savings	91.9	8.1			434
o. Borrowed money from relatives/neighbours	17.3	82.7			434
p. Took children out of school to earn income	1.8	98.2			434

Table A 32 : Food-related coping strategies adopted during the 30 days preceding the survey, by background characteristics (Take at least once who adopted out of total)

Background Characteristic	Percent of households adopted strategy at least once during the preceding 30 days										
	No of households adopted coping strategies	Percent	Relied on less preferred food	Borrowed food	Purchased food on credit	Consumed seeds held for next season	Reduced meal size	Reduced number of meals per day	Restricted consumption for adults	Sent children to live with relatives	Reduced expenditure on health and education
No. of members in Household											
1-3	125	32.0	72.5	70.0	67.5	25.0	45.0	30.0	5.0	0.0	5.0
4-6	261	33.3	82.8	77.0	93.1	34.5	52.9	42.5	31.0	8.0	21.8
≥ 7	53	20.8	100.0	81.8	81.8	45.5	63.6	45.5	45.5	18.2	27.3
Sector											
Urban	62	17.7	72.7	63.6	81.8	18.2	27.3	36.4	9.1	0.0	9.1
Rural	377	33.7	81.9	76.4	85.0	33.9	53.5	39.4	26.0	7.1	18.1
Religion of the HH Head											
Budddhist	60	16.7	60.0	40.0	70.0	0.0	60.0	50.0	40.0	0.0	0.0
Hindu	279	34.8	81.4	75.3	84.5	32.0	47.4	38.1	20.6	5.2	17.5
Islam	54	33.3	83.3	88.9	100.0	55.6	55.6	44.4	27.8	16.7	22.2
Catholic	32	28.1	88.9	88.9	77.8	44.4	55.6	22.2	33.3	11.1	33.3
Monthly household income											
< 9,000	163	43.6	81.7	78.9	84.5	33.8	60.6	54.9	29.6	8.5	23.9
9,000 – 13,999	114	34.2	82.1	71.8	87.2	17.9	51.3	28.2	23.1	5.1	12.8
14,000 – 19,999	78	17.9	71.4	57.1	85.7	35.7	28.6	7.1	28.6	7.1	14.3
20,000 – 31,999	52	17.3	88.9	77.8	77.8	66.7	11.1	11.1	0.0	0.0	0.0
≥ 32,000	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wealth quintile											

Poorest	124	43.5	88.9	74.1	81.5	31.5	64.8	50.0	31.5	3.7	22.2
Second	111	30.6	79.4	76.5	91.2	23.5	61.8	50.0	20.6	8.8	17.6
Middle	87	36.8	65.6	68.8	75.0	21.9	31.3	21.9	15.6	3.1	9.4
Fourth	74	16.2	83.3	83.3	100.0	66.7	33.3	25.0	41.7	25.0	25.0
Richest	43	14.0	100.0	100.0	100.0	83.3	16.7	0.0	0.0	0.0	0.0
overall	439	31.4	81.2	75.4	84.8	32.6	51.4	39.1	24.6	6.5	17.4

Table A 33 : Households taken loans and reasons for borrowing money, by background characteristics

Background Characteristic	Received loan		Main reason for loan (% of the total received loan)								
	No	%	Purchase food	Medical cost	Repair of damaged house	Transport	Repay loan	support additional members	Marriage	Income generation	other
No. of members in Household											
1-3	125	29.6	34.2	10.5	10.5	0.0	13.2	0.0	0.0	13.2	18.4
4-6	261	39.5	60.6	11.5	3.8	1.0	9.6	0.0	1.9	7.7	3.8
≥ 7	53	47.2	34.6	3.8	7.7	0.0	15.4	3.8	7.7	19.2	7.7
Sector											
Urban	62	29.0	47.4	5.3	0.0	0.0	10.5	0.0	0.0	10.5	26.3
Rural	377	39.0	51.0	10.7	6.7	0.7	11.4	0.7	2.7	10.7	5.4
Monthly household income											
< 9,000	163	41.1	52.2	11.9	3.0	1.5	9.0	1.5	3.0	7.5	10.4
9,000 – 13,999	114	46.5	54.5	9.1	9.1	0.0	10.9	0.0	1.8	7.3	7.3
14,000 – 19,999	78	29.5	43.5	8.7	13.0	0.0	8.7	0.0	4.3	13.0	8.7
20,000 – 31,999	52	28.8	37.5	6.3	0.0	0.0	25.0	0.0	0.0	31.3	0.0
≥ 32,000	19	5.3	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Wealth quintile											

Background Characteristic	Received loan		Main reason for loan (% of the total received loan)								
	No	%	Purchase food	Medical cost	Repair of damaged house	Transport	Repay loan	support additional members	Marriage	Income generation	other
Poorest	124	46.0	55.2	8.6	6.9	1.7	8.6	1.7	1.7	10.3	5.2
Second	111	41.4	59.6	10.6	2.1	0.0	6.4	0.0	4.3	8.5	8.5
Middle	87	34.5	32.3	12.9	9.7	0.0	19.4	0.0	0.0	19.4	6.5
Fourth	74	31.1	43.5	13.0	4.3	0.0	17.4	0.0	0.0	4.3	17.4
Richest	43	20.9	55.6	0.0	11.1	0.0	11.1	0.0	11.1	11.1	0.0
Overall	439	37.6	50.6	10.1	6.0	0.6	11.3	0.6	2.4	10.7	7.7

Table A 34:.16 Household Food Consumption Adequacy Score (HFCAS) and prevalence of household food insecurity status, by background characteristics

Background characteristic	Mean (SD) HFCAS Score*	SD	HFCAS Score Category (%)			No. of households
			Poor	Borderline	Adequate	
No. of members in family						
1-3	70.3	(19.1)	1.6	3.2	95.2	124
4-6	70.6	(17.9)	0.4	3.1	96.5	258
≥ 7	78.8	(18.9)	1.9	3.8	94.3	53
Residence						
Urban	75.9	(14.5)	0.0	0.0	100.0	62
Rural	70.8	(19.0)	1.1	3.8	95.2	373
Religion of household Head						
Buddhist	65.4	(15.1)	0.0	5.0	95.0	60
Hindu	72.8	(19.6)	1.1	3.6	95.3	276
Islam	74.0	(12.2)	0.0	0.0	100.0	54
Catholic and other Christian	66.7	(23.9)	3.2	3.2	93.5	31
Education of household Head						
No schooling	80.5	(22.6)	0.0	5.6	94.4	18
Primary	65.2	(20.1)	0.0	6.9	93.1	58
Secondary	71.5	(17.7)	0.7	2.6	96.7	151
Passed O' Level	70.9	(18.8)	1.6	3.3	95.1	122
Higher	77.1	(18.3)	1.9	1.9	96.3	54
Monthly household income						
< 9,000	69.9	(20.3)	1.9	4.3	93.8	161
9,000 – 13,999	72.6	(16.4)	0.0	2.6	97.4	114
14,000 – 19,999	70.9	(18.2)	0.0	3.9	96.1	77
20,000 – 31,999	76.4	(15.5)	1.9	0.0	98.1	52
≥ 32,000	72.3	(17.9)	0.0	5.3	94.7	19
Wealth quintile						

Background characteristic	Mean (SD) HFCAS Score*	SD	HFCAS Score Category (%)			No. of households
			Poor	Borderline	Adequate	
Poorest	69.4	(19.9)	0.0	4.1	95.9	122
Second	69.0	(19.5)	2.7	4.5	92.7	110
Middle	75.7	(16.7)	0.0	2.3	97.7	87
Fourth	72.5	(18.7)	1.4	2.7	95.9	73
Richest	74.0	(13.0)	0.0	0.0	100.0	43
Overall	71.5	(18.5)	0.9	3.2	95.9	435

Table A 35 : Distribution (No and Percent) of households by food security Levels

Food Consumption Food Access (Percent expenditure on food)	Poor (0-21)		Borderline (21.01 – 35)		Adequate (> 35.01)	
Poor (> 90 %)	0	(0.0)	1	(0.5)	24	(10.8)
Average (75-90 %)	0	(0.0)	3	(1.4)	101	(45.5)
Good (<75 %)	0	(0.0)	1	(0.5)	92	(41.4)

Table A 36: Food Security Levels

Background characteristic	Food Security Level			*No. of households*
	Food Secure (%)	Moderately Food Secure (%)	Food Insecure (%)	
No. of members in family				
1-3	82.7	17.3	0.0	52
4-6	88.3	11.0	0.7	145
≥ 7	92.0	8.0	0.0	25
Sector				
Urban	100.0	0.0	0.0	30
Rural	85.4	14.1	0.5	192
Education of household Head				
No schooling	90.9	0.0	9.1	11
Primary	82.4	17.6	0.0	17
Secondary	81.9	18.1	0.0	83
Passed O' Level	90.0	10.0	0.0	70
Higher	92.9	7.1	0.0	28
Monthly household income				
< 9,000	80.0	18.8	1.3	80

9,000 – 13,999	89.2	10.8	0.0	65
14,000 – 19,999	94.4	5.6	0.0	36
20,000 – 31,999	92.3	7.7	0.0	26
≥ 32,000	90.0	10.0	0.0	10
Wealth quintile				
Poorest	76.0	22.7	1.3	75
Second	89.5	10.5	0.0	57
Middle	94.7	5.3	0.0	38
Fourth	94.4	5.6	0.0	36
Richest	100.0	0.0	0.0	16
Overall	87.4	12.2	0.5	222