

# Multiple Indicator Cluster Survey

## Model Preliminary Report



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# Acknowledgements

## I. Background

### *Introduction*

At the World Summit for Children held in New York in 1990, the government of [Country] committed itself to a Declaration and Plan of Action for Children. Subsequently, a National Programme of Action for Children was developed and implemented. [Describe National Programme of Action.]

The Plan of Action also called for the establishment of mechanisms for monitoring progress toward the goals and objectives set for the year 2000. Toward this end, UNICEF, in collaboration with WHO, UNESCO and others, has developed a core set of 75 indicators of specific aspects of the situation of children. The 2000 [Country] MICS survey has been conducted in order to provide end-decade information on many of these indicators.

The [Country] MICS was conducted by the Central Office of Statistics. Funding was provided by the UNICEF [Country] office. [Describe other organizational details.]

This preliminary report presents selected results on some of the principal topics covered in the survey and on a subset of indicators. A comprehensive full report is scheduled for publication in mid-2000.

### *Survey Objectives*

The 2000 [Country] Multiple Indicator Cluster Survey has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in [Country] at the end of the decade and for looking forward to the next decade;
- To furnish data needed for monitoring progress toward goals established at the World Summit for Children and as a basis for future action;
- To contribute to the improvement of data and monitoring systems in [Country] and to strengthen technical expertise in the design, implementation, and analysis of such systems.

## II. Sample and Survey Methodology

### *Sample Design*

The sample for the [Country] Multiple Indicator Cluster Survey (MICS) was designed to provide estimates of health indicators at the national level, for urban and rural areas, and for five regions: Central, South Central, East, West, and South. The sample was selected in two stages. At the first stage, 123 census enumeration areas were selected with probability proportional to size. After a household listing was carried out within the selected enumeration areas, a systematic sample of 4671 households was drawn. Because the sample was stratified by region, it is not self-weighting. For reporting national level results, sample weights are used.

## **Questionnaires**

In addition to a household questionnaire, questionnaires were administered in each household for women aged 15-49 and children under age five. The questionnaires are based on the MICS model questionnaire with the inclusion of the child disability module. From the MICS model English version, the questionnaires were translated into two languages: A and B. The questionnaires were pretested during November 1999. Based on the results of the pretest, modifications were made to the wording and translation of the questionnaires.

## **Fieldwork and Processing**

The field staff was trained for five days in early January 2000. The data were collected by five teams; each was comprised of four interviewers, one driver, and a supervisor. The MICS Coordinator provided overall supervision. The field work began in January 2000 and concluded in March 2000.

Data were entered on four microcomputers using the EpiInfo software. [Describe country-specific details.] In order to ensure quality control, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under MICS and adapted to the [Country] questionnaire were used throughout. Data processing began in February 2000 and finished in April 2000.

## **Sample Coverage**

Of the 4671 households selected for the sample, 4577 were found to be occupied. Of these, 4285 were successfully interviewed for a household response rate of 94 percent. In the interviewed households, 4236 eligible women (age 15-49) were identified. Of these, 3965 were successfully interviewed, yielding a response rate of 90 percent. In addition, 1957 children under age five were listed in the household questionnaire. Of these, questionnaires were completed for 1831 for a response rate of 94 percent.

## **Characteristics of the Respondents**

Table 1 presents the percent distribution of households in the sample by background characteristics. About 56 percent of the households (2395 households) are urban and 44 percent (1890 households) are rural. The Central region comprises the largest of the five regions with 42 percent of households while South Central is next largest with 22 percent. The remaining regions each contain between 9 and 15 percent of households. Most of the households have between two and five members. Thirty seven percent of the households contain at least one child under age five and 79 percent contain at least one woman age 15-49.

Women age 15-19 comprise the greatest percentage of the sample at 21 percent (Table 2). This percentage declines steadily across age groups until age 45-49 where it is nine percent. This pattern is typical of countries in the region. Approximately 64 percent of women in the sample are married and 67 percent have ever had a birth. The majority of women have had at least some secondary education while only seven percent have had no education.

Table 3 shows the characteristics of children under age five. Fifty three percent of the children are male and 47 percent are female. Approximately 13 percent of mothers of children under age five have no education, a percentage that is almost two times greater than the overall percentage of women with no education in the sample. Note that, for children whose mothers did not live in

the household, the education of the child's caretaker is used. There are slightly more children aged under six months than aged 6-11 months, a pattern which is unexpected.

## **II. Results**

### ***Primary School Attendance***

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the World Summit for Children. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

Overall, 89 percent of children of primary school age in [Country] are attending primary school (Table 4). In urban areas, 96 percent of children attend school while in rural areas 82 percent attend. School attendance in the South is significantly lower than in the rest of the country at 52 percent. At the national level, there is virtually no difference between male and female primary school attendance.

More than two thirds of children who enter the first grade of primary school eventually reach grade five (Table 5). However, there are large regional and urban-rural disparities in the achievement of grade five. Approximately 87 percent of urban children who enter grade one reach grade five compared to slightly more than half of children in rural areas. In the West, only 58 percent of those who enter grade one reach grade five while in the South, the comparable percentage is 23. The main difference between the South and other regions is that only 52 percent of those entering grade one reach grade two. In subsequent grades, the percentage of children continuing schooling remains lower in the South than in other areas although the differences are not as great.

### ***Water and Sanitation***

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants with harmful effects on human health. In addition to its association with disease, access to drinking water may be particularly important for women and children, particularly in rural areas, who bear the primary responsibility for carrying water, often for long distances.

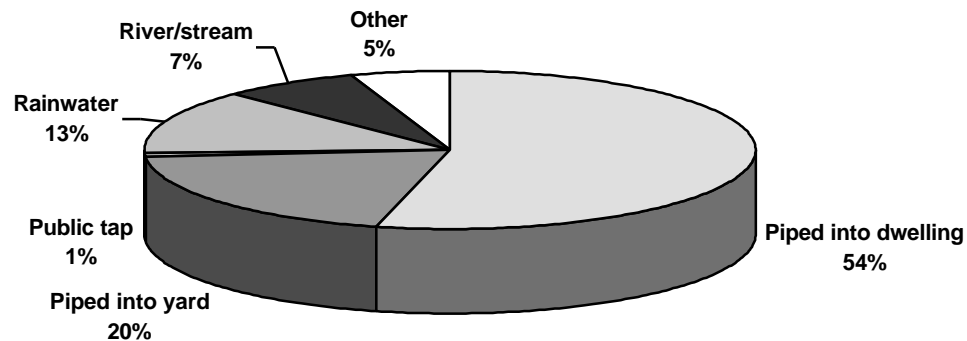
The distribution of the overall population by source of drinking water is shown in Figure 1. Over half of the population uses drinking water from that is piped into their dwelling and 20 percent used water piped into their yard or plot. Rainwater collection and rivers and streams are also important sources of drinking water.

The source of drinking water for the population varies strongly by region (Table 6). In the Central region, 94 percent of the population uses drinking water that is piped into their dwelling or into their yard or plot. In the South Central and West regions, 69 and 82 percent respectively use piped water. In contrast, only about 54 percent of those residing in the East and less than 10 percent of those in the South have piped water. In the East, the second most important source of drinking water is rainwater collection while in the South, more than two thirds use river or stream water (an unsafe source) and most of the remainder use collected rainwater.

The population using *safe drinking water* sources are those who use any of the following types of supply: piped water, public tap, borehole/tubewell, protected well, protected spring or rainwater. Overall, 76 percent of the population has access to safe drinking water – 93 percent in urban areas and 56 percent in rural areas. The situation in the South is considerably worse than in other regions; only 9 percent of the population in this region gets its drinking water from a safe source.

Inadequate disposal of human excreta and personal hygiene is associated with a range of diseases including diarrheal diseases and polio. *Sanitary means of excreta disposal* include: flush toilets connected to sewage systems or septic tanks, other flush toilets, improved pit latrines, and traditional pit latrines. Ninety two percent of the population of [Country] is living in households with sanitary means of excreta disposal (Table 7). This percentage is 99 in urban areas and 82 percent in rural areas. Residents of the South are much less likely than others to use sanitary means of excreta disposal. Most of this population uses rivers, bush, fields, or has no facilities. In contrast, the most common facilities in other areas of the country are flush toilets with connection to a sewage system or septic tank.

**Figure 1: Percent distribution of the population by source of drinking water**



### ***Nutritional Status***

Children’s nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness, and are well cared for, they reach their growth potential and are considered well nourished.

In a well-nourished population, there is a standard distribution of height and weight for children under age five. Undernourishment in a population can be gauged by comparing children to this standard distribution. The standard or reference population used here is the NCHS standard, which is recommended for use by UNICEF and the World Health Organization. Each of the three nutritional status indicators are expressed in standard deviation units (z-scores) from the median of this reference population.

Weight for age is a measure of both acute and chronic malnutrition. Children whose weight for age is more than two standard deviations below the median of the reference population are considered *moderately or severely underweight* while those whose weight for age is more than three standard deviations below the median are classified as *severely underweight*.

Height for age is a measure of linear growth. Children whose height for age is more than two standard deviations below the median of the reference population are considered short for their

age and are classified as *moderately or severely stunted*. Those whose height for age is more than three standard deviations below the median are classified as *severely stunted*. Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness.

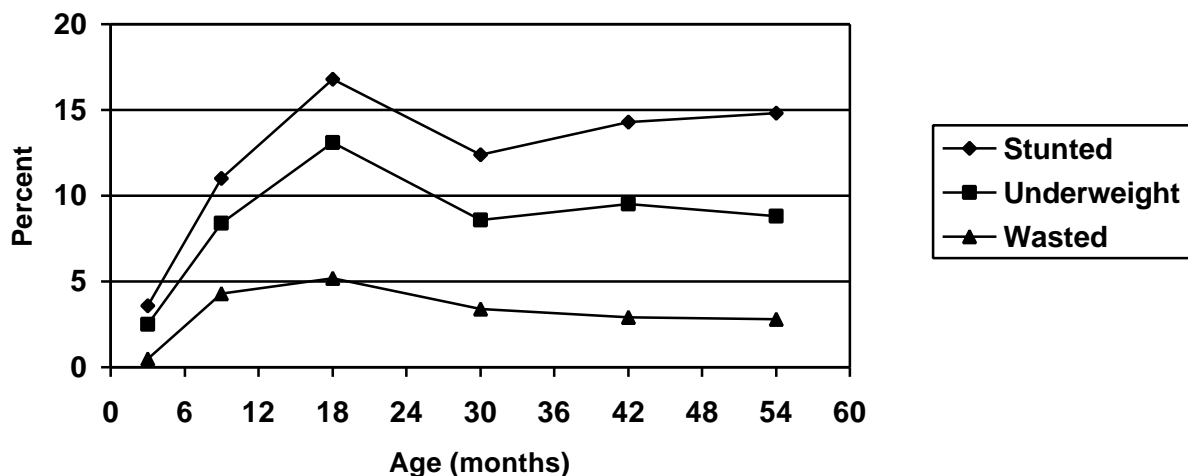
Finally, children whose weight for height is more than two standard deviations below the median of the reference population are classified as *moderately or severely wasted*, while those who fall more than three standard deviations below the median are *severely wasted*. Wasting is usually the result of a recent nutritional deficiency. The indicator may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

In Table 8, children who were not weighed and measured (approximately 6 percent of children) and those whose measurements are outside a plausible range are excluded. In addition, a small number of children whose birth dates are not known are excluded.

Almost one in ten children under age five in [Country] are underweight (9%) and two percent are classified as severely underweight (Table 8). Thirteen percent of children are stunted or too short for their age and three percent are wasted or too thin for their height.

Children in the South are more likely to be underweight and stunted than other children. In contrast, the percentage wasted is highest in the South Central region. Those whose mothers have secondary or higher education are the least likely to be underweight and stunted compared to children of mothers with less education. Boys appear to be slightly more likely to be underweight, stunted, and wasted than girls. The age pattern shows that a higher percentage of children aged 12-23 months are undernourished according to all three indices in comparison to children who are younger and older (Figure 2). This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination in water, food, and environment.

**Figure 2: Percentage of under-five children who are undernourished**



## **Breastfeeding**

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients, and is economical and safe. However, many mothers stop breastfeeding too soon, and there are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and is unsafe if clean water is not readily available. The World Summit for Children goal states that children should be exclusively breastfed for four to six months, and that breastfeeding should continue with complementary food, well into the second year of life. Many countries have adopted the recommendation of exclusive breastfeeding for about six months.

In Table 9, breastfeeding status is based on women's reports of children's consumption in the 24 hours prior to the interview. *Exclusive breastfeeding* refers to children who receive only breast milk and vitamins, mineral supplements, or medicine. *Complementary feeding* refers to children who receive breast milk and solid or semi-solid food. The last two columns of the table include children who are continuing to be breastfed at one and at two years of age. Percentages according to region and mother's education are not shown due to small sample sizes. For the same reason, the sex and urban-rural residence breakdowns should be interpreted with caution.

Approximately 12 percent of children aged less than four months are exclusively breastfed, a level considerably lower than recommended. At age 6-9 months, 25 percent of children are receiving breast milk and solid or semi-solid foods. By age 12-15 months, 38 percent of children are still being breastfed and by age 20-23 months, 12 percent are still breastfed. Boys were more likely to be exclusively breastfed than girls, while girls had higher levels than boys for timely complementary feeding.

## **Vitamin A Supplementation**

Vitamin A deficiency (VAD) impairs children's immune systems, increasing their chances of dying of common childhood diseases and undermines the health of pregnant and lactating women. It can also cause eye damage and blindness in children. Yet it can be easily prevented by vitamin A supplementation or food fortification. UNICEF and WHO recommend that all countries with an under five mortality rate exceeding 70 per 1000 live births, or where vitamin A deficiency is a public health problem, should put in place a programme for control of vitamin A deficiency. Based on UNICEF/WHO guidelines, the [Country] Ministry of Health recommends that children aged 6-12 months be given one dose Vitamin A capsule of 100,000 IU every six months, and children older than one year be given one high dose of 200,000 IU every six months.

Within the six months prior to the MICS, 14 percent of children aged 6-59 months received the high dose Vitamin A supplement (Table 10). Approximately 6 percent did not receive the supplement in the last 6 months but did receive one prior to that time. Fewer than one percent of children received a Vitamin A supplement at some time in the past but their mother/caretaker was unable to specify when. Vitamin A supplementation coverage is lower in the South than in other regions.

The age pattern of Vitamin A supplementation shows that supplementation in the last six months rises from 17 percent among children aged 6-11 months to 21 percent among children aged 12-23 months and then declines steadily with age to eight percent among the oldest children.

The mother's level of education is also related to the likelihood of Vitamin A supplementation. The percentage receiving a supplement in the last six months increases from six percent among

children whose mothers have no education to 14 percent of those whose mothers have primary education and 15 percent among children of mothers with secondary or higher education.

### ***Salt Iodization***

Deficiency of iodine in the diet is the world's single greatest cause of preventable mental retardation and can lower the average intelligence quotient (IQ) of a population by as much as thirteen points. Salt iodization is an effective, low-cost way of preventing iodine deficiency disorders (IDD). *Adequately iodized salt* contains 15 ppm (parts per million) of iodine or more. In MICS, interviewers tested household salt for iodine levels by means of a testing kit.

Approximately 98 percent of households had salt which was tested during the MICS (Table 11). Among households in which salt was tested, 78 percent had adequately iodized salt. The percentage of households with adequately iodized salt ranges from 57 percent in the South to 89 percent in the Central region. Eighty one percent of urban households had adequately iodized salt compared to 74 percent of rural households.

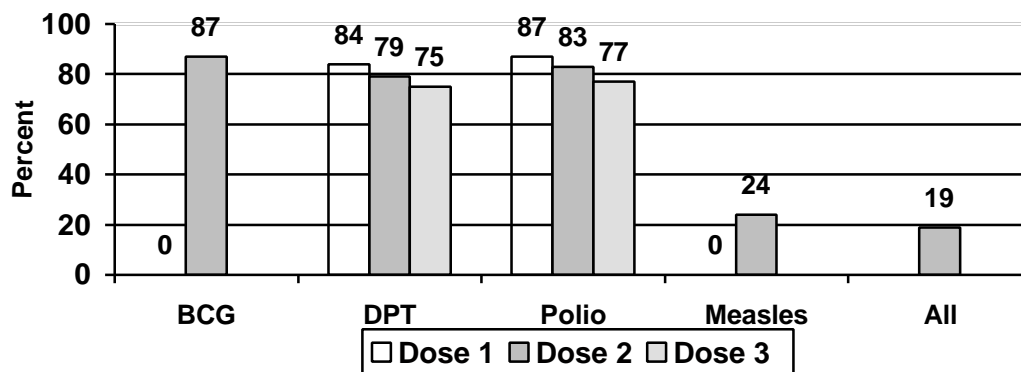
### ***Immunization Coverage***

According to UNICEF and WHO guidelines, a child should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against diphtheria, pertussis, and tetanus, three doses of polio vaccine, and a measles vaccination by the age of 12 months. [Adapt to country-specific immunization guidelines.] In MICS, mothers were asked to provide vaccination cards for children under the age of five. Interviewers copied vaccination information from the cards onto the MICS questionnaire. Overall, 86 percent of children had health cards. If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many times.

Table 12 shows the percentage of children aged 12 to 23 months who received each of the vaccinations. The denominator for the table is comprised of children aged 12-23 months so that only children who are old enough to be fully vaccinated are counted. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before their first birthday are included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

Approximately 87 percent of children aged 12-23 months received a BCG vaccination by the age of 12 months and the first dose of DPT was given to 84 percent. The percentage declines for subsequent doses of DPT to 79 percent for the second dose, and 75 percent for the third dose (Figure 3). Similarly, 87 percent of children received Polio 1 by age 12 months and this declines to 77 percent by the third dose. The coverage for measles vaccine by 12 months is lower than for the other vaccines at 24 percent. This is primarily because, although 61 percent of children received the vaccine, only around 40 percent received it by their first birthday. As a result, the percentage of children who had all eight recommended vaccinations by their first birthday is low at only 19 percent.

**Figure 3: Percentage of children 12-23 months who received immunizations by age 12 months**



### ***Knowledge of HIV/AIDS Transmission***

One of the most important strategies for reducing the rate of HIV/AIDS infection is the promotion of accurate knowledge of how AIDS is transmitted and how to prevent transmission. Among women aged 15-49 in [Country], 93 percent have ever heard of AIDS (Table 13). This percentage is very high in urban areas (97 percent) and somewhat lower in rural areas (90 percent).

Women in the MICS were read several statements about means of HIV/AIDS transmission and asked to state whether they believed the statements were true. Sixty three percent believe that having only one uninfected sex partner can prevent HIV transmission. Sixty two percent believe that using a condom every time one has sex can prevent HIV transmission and 45 percent agreed that abstaining from sex prevents HIV transmission. Overall, 37 percent knew all three ways and 71 percent were aware of at least one of the means of preventing transmission.

Accurate knowledge of the means of HIV/AIDS transmission is substantially less among women in the South than among other women. Also, education is a very important factor in AIDS knowledge. The percentage who know all three means of preventing transmission is more than seven times greater among women with secondary or more education compared to women with no education. Differences across age groups are not particularly large; the percentage of women who know all three means ranges from 34 percent among 20-24 year olds to 42 percent among 35-39 year olds.

Fifty nine percent of women correctly stated that AIDS can't be transmitted by supernatural means while 50 percent stated that AIDS can't be spread by mosquito bites (Table 14). More than seven in ten women correctly believe that a healthy looking person can be infected. Women in the South are more likely to believe misconceptions about AIDS transmission than other women. Women in the Central region are most likely to recognize all three misconceptions. Still, only a little more than half (52 percent) of these women correctly identified all three misconceptions.

### ***Assistance at Delivery***

The provision of delivery assistance by skilled attendants can greatly improve outcomes for mothers and children by the use of technically appropriate procedures, and accurate and speedy diagnosis and treatment of complications. *Skilled assistance at delivery* is defined as assistance provided by a doctor, nurse, or midwife. About 77 percent of births occurring in the year prior to the MICS survey were delivered by skilled personnel (Table 15). This percentage is highest in the South Central region at 99 percent and lowest in the South at 21 percent. The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled person.

More than one in three of the births in the year prior to the MICS survey were delivered with assistance by a midwife. Doctors assisted with the delivery of 27 percent of births and nurses assisted with 13 percent. Overall, about 10 percent of births were delivered by health assistants, but these births occurred only among women in the South where the type of personnel providing delivery assistance is noticeably different than in other regions. In the South, about 47 percent of births are delivered by health assistants and 27 percent by traditional birth attendants. In the other regions, between 42 and 49 percent of births are delivered with the assistance of a midwife while 29-33 percent are delivered by a doctor.

### ***Birth Registration***

The International Convention on the Rights of the Child states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The births of 94 percent of children under five years in [Country] have been registered (Table 16). There are no significant variations in birth registration across sex, age, or education categories. Children in the West are somewhat less likely to have their births registered than other children but this appears to be due primarily to a relatively large proportion of mothers who do not know if their child's birth was registered. Among those whose births are not registered, cost, travel distance, and lack of knowledge do not appear to be the main reasons.

**Table 1: Percent distribution of households by background characteristics, Country, Year**

	Area		Total
	Urban	Rural	
Central	74.3	0.0	41.5
South Central	17.1	27.9	21.9
West	8.6	24.8	15.7
East	0.0	26.1	11.5
South	.0.0	21.2	9.4
Number of HH members			
1	9.8	10.5	10.1
2-3	35.6	33.0	34.4
4-5	36.5	34.2	35.5
6-7	12.8	15.1	13.8
8-9	4.0	5.2	4.5
10+	1.4	2.1	1.7
Total	100.0	100.0	100.0
At least one child age < 15	60.9	66.1	63.2
At least one child age < 5	34.7	39.8	37.0
At least one woman age 15-49	78.9	79.5	79.2
Number	2395	1890	4285
Unweighted	2307	1978	4285

**Table 2: Percent distribution of women 15-49 by background characteristics, Country, Year**

	Area		Total
	Urban	Rural	
Central	72.2	0.0	40.0
South Central	19.0	30.3	24.0
West	8.8	24.6	15.8
East	0.0	24.7	11.0
South	0.0	20.4	9.1
Age			
15-19	18.2	23.6	20.6
20-24	16.4	15.3	15.9
25-29	15.0	14.9	15.0
30-34	15.4	14.7	15.1
35-39	13.9	12.8	13.4
40-44	11.9	10.1	11.1
45-49	9.1	8.5	8.8
Marital status			
Currently married	62.3	66.5	64.2
Not currently married	37.7	33.5	35.8
Ever given birth			
Yes	66.2	67.9	67.0
No	33.8	32.1	33.0
Education level			
None	2.3	12.2	6.7
Primary	19.2	35.5	26.5
Secondary +	78.5	52.3	66.8
Total	100.0	100.0	100.0
Number	2196	1769	3965
Unweighted	2060	1905	3965

**Table 3: Percent distribution of children under 5 by background characteristics, Country, Year**

	Area		Total
	Urban	Rural	
Male	52.2	53.8	53.0
Female	47.8	46.2	47.0
Central	74.0	.0	36.2
South Central	17.4	22.9	20.2
West	8.6	20.6	14.8
East	0.0	23.4	11.9
South	0.0	33.1	16.9
Age			
< 6 months	12.2	11.4	11.8
6-11 months	8.1	9.1	8.6
12-23 months	19.1	21.0	20.0
24-35 months	25.1	21.2	23.1
36-47 months	18.7	19.0	18.9
48-59 months	16.8	18.3	17.6
Mother's education			
None	5.5	20.2	13.0
Primary	16.9	36.9	27.1
Secondary +	77.6	42.9	59.9
Total	100.0	100.0	100.0
Number	896	934	1830
Unweighted	857	974	1831

**Table 4: Percentage of children of primary school age attending primary school, Country, Year**

	Male		Female		Total	
	Attending	Number	Attending	Number	Attending	Number
Central	96.5	504	97.3	456	96.9	959
South Central	92.5	324	96.1	296	94.2	620
West	89.7	201	91.1	211	90.4	412
East	93.0	203	87.0	169	90.3	373
South	50.6	172	53.6	159	52.0	331
Urban	95.4	702	96.7	627	96.0	1329
Rural	81.5	702	82.3	663	81.9	1365
Age						
5	83.7	154	81.9	157	82.8	311
6	83.8	176	86.4	158	85.1	334
7	87.8	193	89.2	160	88.4	353
8	91.1	173	92.8	147	91.9	320
9	88.7	180	91.8	175	90.2	355
10	92.0	195	91.6	172	91.8	366
11	90.1	156	90.5	172	90.3	328
12	89.7	177	89.6	150	89.7	327
<b>Total</b>	<b>88.5</b>	<b>1404</b>	<b>89.3</b>	<b>1290</b>	<b>88.9</b>	<b>2694</b>

**Table 5: Percentage of children entering first grade of primary school who eventually reach grade 5, Country, Year**

	Percent in grade 1 eventually reaching grade 2	Percent in grade 2 eventually reaching grade 3	Percent in grade 3 eventually reaching grade 4	Percent in grade 4 eventually reaching grade 5	Percent who reach grade 5 of those who enter grade 1
Male	86.0	92.4	93.2	93.2	69.1
Female	86.1	92.8	95.2	89.5	68.1
Central	98.2	.	96.9	96.3	.
South	93.5	94.5	93.9	96.1	79.7
Central					
West	82.5	90.1	93.6	83.4	58.0
East	86.6	92.9	95.4	89.6	68.7
South	51.8	76.4	80.6	72.4	23.1
Urban	95.4	98.7	96.8	96.0	87.4
Rural	78.8	87.4	91.6	86.1	54.3
Total	86.1	92.6	94.2	91.4	68.6

**Table 6: Percentage of the population using improved drinking water sources, Country, Year**

	Main source of water															Total with safe drinking water	No. of per- sons	
	Piped into dwelling	Piped into yard or plot	Public tap	Tube- well/ Bore- hole with pump	Pro- tected spring	Pro- tected dug well	Rain- water collec- tion	Bottled water	Unpro- tected spring	Unpro- tected dug well	River or stream	Tanker truck vendor	Cut official pipe	Other	Don't know			
Central	79.8	14.0	0.7	0.0	0.1	0.0	4.3	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.4	100.0	98.9	6778
South Central	44.3	24.8	0.4	1.3	1.7	0.4	21.9	0.0	0.3	0.0	0.0	0.0	2.2	2.5	0.2	100.0	94.8	3873
West	49.9	31.9	0.6	0.2	0.0	0.1	5.7	0.3	0.0	0.2	0.8	0.9	6.6	1.7	1.1	100.0	88.4	2716
East	32.9	20.9	1.0	1.3	2.8	0.2	28.8	0.3	2.0	0.0	7.5	0.0	1.0	1.1	0.0	100.0	87.9	2077
South	0.0	7.4	2.1	0.0	0.0	0.0	21.3	0.0	0.0	0.5	68.5	0.0	0.0	0.0	0.3	100.0	30.8	1518
Urban	74.4	16.2	0.5	0.5	0.6	0.2	5.5	0.1	0.2	0.0	0.0	0.1	0.1	1.1	0.5	100.0	97.9	9312
Rural	29.2	23.7	1.1	0.5	0.9	0.1	22.3	0.1	0.5	0.2	15.9	0.2	3.6	1.3	0.4	100.0	77.8	7651
Total	54.0	19.6	0.8	0.5	0.8	0.1	13.1	0.1	0.3	0.1	7.2	0.1	1.7	1.2	0.4	100.0	88.9	16963

**Table 7: Percentage of the population using sanitary means of excreta disposal, Country, Year**

	Type of toilet facility										Total with sanitary means of excreta disposal	No. of persons
	Flush to sewage system/ septic tank	Pour flush latrine	Improved pit latrine	Traditional pit latrine	River	Open pit	Other	No facilities/ bush/field	Missing	Total		
Central	87.5	11.5	0.2	0.0	0.0	0.0	0.5	0.0	0.4	100.0	99.2	6778
South Central	73.7	25.7	0.0	0.2	0.0	0.1	0.1	0.1	0.0	100.0	99.6	3873
West	71.0	24.3	1.5	1.0	0.0	0.6	0.6	0.2	0.7	100.0	97.8	2716
East	50.9	44.3	0.5	1.0	0.0	1.7	1.2	0.4	0.0	100.0	96.7	2077
South	.8	17.4	0.0	0.6	28.6	1.1	0.0	50.8	0.6	100.0	18.9	1518
Urban	84.3	14.6	0.1	0.0	0.0	0.0	0.5	0.0	0.4	100.0	99.1	9312
Rural	51.5	29.5	0.7	0.8	5.7	0.9	0.4	10.3	0.2	100.0	82.4	7651
Total	69.5	21.3	0.4	0.4	2.6	0.4	0.5	4.7	0.3	100.0	91.6	16963

**Table 8: Percentage of under-five children who are severely or moderately undernourished, Country, Year**

	Weight for age		Height for age		Weight for height		Number of children
	Percent below	Percent below	Percent below	Percent below	Percent below	Percent below	
	- 2 SD	-3 SD	- 2 SD	-3 SD	-2 SD	-3 SD	
Male	10.8	2.7	14.2	2.5	3.9	0.8	887
Female	7.1	1.9	11.6	1.3	2.6	0.6	779
Central	5.8	1.4	10.8	1.9	3.3	0.8	609
South Central	8.7	2.5	16.6	1.6	4.6	1.1	350
West	6.1	1.7	11.1	.8	3.9	0.2	228
East	7.4	.5	6.9	.9	1.0	0.2	207
South	20.4	6.0	19.4	3.9	2.9	0.7	272
Urban	6.2	1.3	10.8	1.4	3.3	0.6	816
Rural	11.9	3.3	15.1	2.4	3.3	0.8	849
< 6 months	2.5	.5	3.6	1.0	0.5	0.3	196
6-11 months	8.4	2.9	11.0	3.4	4.3	2.1	141
12-23 months	13.1	4.2	16.8	2.3	5.2	0.7	346
24-35 months	8.6	1.6	12.4	1.6	3.4	0.3	378
36-47 months	9.5	2.5	14.3	1.6	2.9	1.0	315
48-59 months	8.8	1.7	14.8	2.0	2.8	0.7	288
Mother's education							
None	15.5	4.5	15.1	3.7	3.3	0.9	211
Primary	13.2	2.4	16.2	2.2	3.2	0.7	444
Secondary +	5.9	1.8	11.2	1.4	3.4	0.7	1010
<b>Total</b>	<b>9.1</b>	<b>2.3</b>	<b>13.0</b>	<b>1.9</b>	<b>3.3</b>	<b>0.7</b>	<b>1665</b>

**Table 9: Percent of living children by breastfeeding status, Country, Year**

	<b>Percent of children 0-3 months exclusively breastfed</b>	<b>Number of children</b>	<b>Percent of children 6-9 months receiving breastmilk and solid/semi-solid food</b>	<b>Number of children</b>	<b>Percent of children 12-15 months breastfed</b>	<b>Number of children</b>	<b>Percent of children 20-23 months breastfed</b>	<b>Number of children</b>
Male	14.5	77	18.6	59	39.5	66	10.9	48
Female	9.9	69	32.6	49	36.9	72	13.4	52
Urban	13.0	72	23.9	48	31.1	64	18.2	46
Rural	11.7	74	25.8	59	44.2	74	7.1	54
Total	12.4	146	25.0	108	38.1	138	12.2	100

**Table 10: Percent distribution of children aged 6-59 months by whether they have received a high dose Vitamin A supplement in the last 6 months, Country, Year**

	Percent of children who received Vitamin A:			Not sure if received	Never received	Total	Number of children
	Within last 6 months	Prior to last 6 months	Not sure when				
Male	12.2	6.1	0.2	2.2	79.3	100.0	855
Female	15.6	6.6	0.1	1.3	76.4	100.0	757
Central	14.2	8.5	0.3	2.1	74.8	100.0	576
South Central	14.2	5.4	0.0	1.5	78.9	100.0	331
West	17.1	8.9	0.4	1.6	72.0	100.0	246
East	15.1	5.5	0.0	1.5	77.9	100.0	199
South	8.1	0.8	0.0	1.9	89.2	100.0	260
Urban	15.9	8.0	0.3	2.2	73.8	100.0	786
Rural	11.7	4.7	0.1	1.5	82.0	100.0	826
6-11 months	17.1	1.3	0.0	0.6	81.0	100.0	158
12-23 months	21.0	5.2	0.3	1.1	72.4	100.0	366
24-35 months	13.7	9.7	0.0	0.5	76.3	100.0	422
36-47 months	9.6	5.2	0.0	3.2	82.0	100.0	345
48-59 months	8.4	6.9	0.6	3.4	80.7	100.0	321
Mother's education							
None	6.3	3.9	0.5	1.9	87.4	100.0	207
Primary	13.8	7.3	0.5	1.9	76.5	100.0	426
Secondary +	15.3	6.4	0.0	1.7	76.5	100.0	979
<b>Total</b>	<b>13.8</b>	<b>6.3</b>	<b>0.2</b>	<b>1.8</b>	<b>77.9</b>	<b>100.0</b>	<b>1612</b>

**Table 11: Percentage of households consuming adequately iodized salt, Country, Year**

	Percent of households with no salt	Percent of households in which salt was tested	Percent of households with salt testing		Number of households interviewed
			< 15 PPM	15+ PPM	
Central	0.3	99.6	10.6	89.4	1778
South Central	0.8	98.9	30.9	69.1	938
West	0.7	99.3	26.6	73.4	673
East	1.0	96.8	22.9	77.1	493
South	5.0	89.3	42.9	57.1	403
Urban	0.9	99.5	18.6	81.4	2395
Rural	1.1	96.4	26.3	73.7	1890
Total	1.0	98.1	22.0	78.0	4285

**Note: Adequately iodized salt is salt testing 15 PPM (parts per million) or more.**

**Table 12: Percentage of children age 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Country, Year**

Percentage of children who received:											
	BCG	DPT1	DPT2	DPT3	Polio 1	Polio2	Polio3	Measles	All	None	No. of children
Vaccinated at any time before the survey											
According to:											
Vaccination card	85.2	80.5	78.6	74.3	84.7	81.8	77.8	56.2	51.7	1.1	314
Mother's report	3.7	5.0	3.0	3.0	3.3	3.3	2.5	4.4	0.8	2.7	52
Either	88.9	85.5	81.6	77.3	88.0	85.1	80.3	60.6	52.5	3.8	366
Vaccinated by 12 months of age	87.1	84.0	79.4	74.5	86.9	83.1	77.2	24.0	19.3	-	366

**Table 13: Percentage of women aged 15-49 who know the main ways of preventing HIV transmission, Country, Year**

	Percent who know transmission can be prevented by:							Number of women
	Heard of AIDS	Have only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Doesn't know any way	
Central	97.0	76.3	76.9	53.7	46.8	83.8	16.2	1587
South Central	93.1	63.3	63.5	45.4	37.3	72.1	27.9	953
West	92.7	53.1	46.0	37.5	27.3	60.8	39.2	627
East	91.1	61.6	59.4	43.3	36.3	66.7	33.3	437
South	82.7	25.0	22.2	20.9	14.9	29.4	70.6	360
Urban	96.5	73.9	73.4	52.1	45.0	81.5	18.5	2196
Rural	89.6	50.0	47.6	36.2	28.0	56.9	43.1	1769
15-19	92.0	58.5	57.1	42.9	33.8	66.4	33.6	818
20-24	94.3	60.8	63.1	42.5	33.4	71.6	28.4	631
25-29	94.2	66.5	63.9	46.1	39.4	72.6	27.4	593
30-34	95.1	69.0	64.4	47.4	41.1	73.6	26.4	599
35-39	94.4	66.9	66.1	48.8	42.2	74.3	25.7	531
40-44	93.6	65.8	63.8	47.3	39.4	72.8	27.2	441
45-49	89.2	54.6	54.5	39.8	33.2	60.6	39.4	351
Education								
None	80.7	17.3	14.9	10.8	6.4	21.6	78.4	266
Primary	87.7	40.4	38.1	29.8	22.0	47.4	52.6	1050
Secondary +	97.0	76.9	76.1	54.5	46.6	84.6	15.4	2649
Total	93.4	63.2	61.9	45.0	37.4	70.5	29.5	3965

**Table 14: Percentage of women aged 15-49 who correctly identify misconceptions about HIV/AIDS, Country, Year**

	Percent who know that:							Number of women
	AIDS cannot be transmitted by:			A healthy looking person can be infected	Knows all three misconceptions	Knows at least one misconception	Doesn't correctly identify any misconception	
	Heard of AIDS	Supernatural means	Mosquito bites					
Central	97.0	71.9	63.2	82.7	52.0	90.8	9.2	1587
South Central	93.1	59.7	48.9	71.7	36.2	82.4	17.6	953
West	92.7	49.3	38.8	68.0	28.9	78.2	21.8	627
East	91.1	52.9	45.6	63.3	29.3	77.5	22.5	437
South	82.7	26.3	18.0	46.1	13.4	53.9	46.1	360
Urban	96.5	68.8	59.6	80.9	48.3	89.2	10.8	2196
Rural	89.6	47.1	37.8	61.5	26.4	73.0	27.0	1769
15-19	92.0	55.9	46.3	68.8	32.2	81.2	18.8	818
20-24	94.3	60.0	49.4	74.4	39.1	83.6	16.4	631
25-29	94.2	62.6	55.6	74.8	44.0	83.2	16.8	593
30-34	95.1	62.7	52.6	73.6	41.2	84.0	16.0	599
35-39	94.4	63.6	54.4	72.7	43.7	82.5	17.5	531
40-44	93.6	55.8	47.8	73.7	37.4	81.9	18.1	441
45-49	89.2	51.0	40.7	67.3	31.8	74.7	25.3	351
Education								
None	80.7	17.1	11.2	37.3	7.7	45.1	54.9	266
Primary	87.7	35.0	26.7	53.9	15.8	65.3	34.7	1050
Secondary +	97.0	73.0	63.0	83.0	50.6	92.3	7.7	2649
Total	93.4	59.2	49.9	72.2	38.5	82.0	18.0	3965

**Table 15: Percent distribution of women aged 15-49 with a birth in the last year by type of personnel assisting at delivery, Country, Year**

	Person assisting at delivery						Total	Any skilled personnel	Number of women
	Doctor	Nurse	Midwife	Health assistant	Traditional birth attendant	Other/missing			
Central	33.1	16.9	42.6	0.0	0.0	7.4	100.0	92.6	145
South Central	29.8	20.4	48.5	0.0	0.0	1.2	100.0	98.8	75
West	32.3	9.1	41.6	0.0	2.0	15.0	100.0	83.0	45
East	29.3	9.8	48.8	0.0	2.4	9.8	100.0	87.8	38
South	7.8	3.3	10.0	46.7	26.7	5.6	100.0	21.1	84
Urban	31.7	16.4	45.4	0.0	0.0	6.6	100.0	93.4	195
Rural	21.3	9.7	29.0	20.3	12.6	7.2	100.0	59.9	192
Education									
None	15.2	2.3	16.9	28.5	28.5	8.5	100.0	34.4	46
Primary	19.8	17.5	28.5	20.3	8.1	5.8	100.0	65.7	114
Secondary +	32.2	13.0	45.7	1.2	0.8	7.1	100.0	90.8	227
Total	26.5	13.1	37.2	10.1	6.2	6.9	100.0	76.8	387

**Table 16: Percent distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Country, Year**

	Birth is not registered because:									No. of children
	Birth is registered	DK if birth registered	Costs too much	Must travel too far	Didn't know it should be registered	Doesn't know where to register	Other	Reason DK or Missing	Total	
Male	93.8	4.3	0.1	0.3	0.1	0.1	0.7	0.5	100.0	970
Female	94.7	4.0	0.0	0.1	0.2	0.1	0.3	0.5	100.0	860
Central	95.1	2.7	0.2	0.2	0.3	0.2	0.6	0.8	100.0	663
South Central	94.9	3.2	0.0	0.6	0.0	0.3	1.1	0.0	100.0	370
West	85.6	13.3	0.0	0.0	0.4	0.0	0.0	0.7	100.0	270
East	96.5	2.2	0.0	0.4	0.0	0.0	0.9	0.0	100.0	219
South	97.5	1.9	0.0	0.0	0.0	0.0	0.0	0.6	100.0	309
Urban	93.5	4.2	0.1	0.4	0.2	0.2	0.7	0.7	100.0	896
Rural	95.0	4.1	0.0	0.1	0.1	0.0	0.4	0.3	100.0	934
< 6 months	90.7	4.6	0.0	0.9	0.0	0.0	2.3	1.4	100.0	215
6-11 months	96.7	2.0	0.0	0.0	0.0	0.0	0.6	0.7	100.0	158
12-23 months	95.6	2.7	0.0	0.3	0.3	0.0	0.8	0.3	100.0	366
24-35 months	93.3	5.4	0.2	0.0	0.2	0.0	0.2	0.5	100.0	422
36-47 months	93.6	4.7	0.0	0.3	0.3	0.6	0.0	0.6	100.0	345
48-59 months	95.7	4.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	321
Mother's education										
None	92.0	2.9	0.0	0.8	0.9	0.9	1.3	1.2	100.0	238
Primary	92.6	5.6	0.2	0.4	0.2	0.0	0.8	0.2	100.0	496
Secondary +	95.5	3.8	0.0	0.0	0.0	0.0	0.3	0.5	100.0	1096
<b>Total</b>	<b>94.2</b>	<b>4.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.6</b>	<b>0.5</b>	<b>100.0</b>	<b>1830</b>