

This chapter presents findings from several areas relating to child health and survival including characteristics of the neonate (birth weight and size at birth), the vaccination status of young children, and treatment practices—particularly contact with health services—among children suffering from three childhood illnesses: acute respiratory infection, fever, and diarrhoea. Because appropriate sanitary practices can help prevent and reduce the severity of diarrhoeal disease, information is also provided on the manner of disposal of children’s faecal matter. These results from the 2005-06 ZDHS are expected to assist policymakers and program managers in the health sector to formulate appropriate strategies and interventions to improve the health situation of children in Zimbabwe. In particular, the results will be useful to assess coverage of current strategies such as Integrated Management of Childhood Illness (IMCI), which seeks to prevent deaths from pneumonia, malaria, and diarrhoea, and plan for improvements in these initiatives.

Studies have shown that low birth weight, defined as a weight at birth of less than 2.5 kilogrammes, is associated with high rates of mortality. For births in the five years preceding the survey, birth weight was recorded in the ZDHS questionnaire if available from either a written record or the mother’s recall. Because birth weight may not be known for many babies, the mother’s estimate of the baby’s size at birth was also obtained from all mothers.

10.1 CHILD’S WEIGHT AND SIZE AT BIRTH

Table 10.1 shows that birth weight information was available for 74 percent of the births in the five-year period before the survey. Among the babies for whom birth weight information was obtained in the survey, 10 percent had a low birth weight (less than 2.5 kg). Mothers reported that 4 percent of babies were very small at birth, 11 percent smaller than average, and 84 percent average or larger size at birth.

In general, the proportions of women with low birth weight babies or babies they considered very small or smaller than average do not vary markedly across subgroups. Mothers under age 20 at the time of a birth are more likely than older mothers to report having a baby who weighed less than 2.5 kilograms or was very small or smaller than average. Low birth weight was somewhat more common among first births and births of order six or higher than among other babies. Mothers in urban areas are slightly more likely to have low birth weight babies than rural mothers. Bulawayo (14 percent), Harare (11 percent), and Midlands (11 percent) recorded the highest prevalence of low birth weight babies, and Matabeleland South the lowest (6 percent). Low birth weight is related to the mother’s education status, with more low birth weight babies reported among women with no education or of lower educational status than among those who have more than a secondary education.

Table 10.1 Child's weight and size at birth

Percent distribution of live births in the five years preceding the survey with a reported birth weight, by birth weight; and percent distribution of all live births in the five years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics, Zimbabwe 2005-2006

Background characteristic	Percent distribution of births with a reported birth weight ¹			Total	Number of births	Percentage of all births with a reported birth weight	Percent distribution of all live births by size of child at birth				Total	Number of births
	Less than 2.5 kg	2.5 kg or more	Don't know/missing				Very small	Smaller than average	Average or larger	Don't know/missing		
Mother's age at birth												
<20	11.7	86.6	1.8	100.0	789	73.7	4.4	13.3	81.0	1.3	100.0	1,070
20-34	9.0	88.3	2.7	100.0	2,761	75.3	3.4	10.5	85.0	1.2	100.0	3,668
35-49	9.4	87.5	3.1	100.0	295	59.8	4.5	8.1	85.5	1.9	100.0	492
Birth order												
1	11.0	87.3	1.7	100.0	1,374	83.1	4.4	13.7	81.1	0.8	100.0	1,654
2-3	8.2	89.6	2.2	100.0	1,649	74.7	3.5	9.7	85.4	1.3	100.0	2,207
4-5	8.9	86.2	4.9	100.0	575	65.0	2.9	9.7	86.3	1.2	100.0	886
6+	12.1	84.2	3.7	100.0	247	51.0	3.9	7.9	85.5	2.7	100.0	484
Residence												
Urban	10.4	87.7	1.9	100.0	1,460	96.5	4.0	10.7	84.6	0.7	100.0	1,513
Rural	9.0	88.1	2.9	100.0	2,385	64.2	3.6	10.8	84.1	1.5	100.0	3,718
Region												
Manicaland	9.0	88.9	2.1	100.0	449	66.1	2.1	9.7	86.8	1.4	100.0	679
Mashonaland Central	10.3	88.3	1.5	100.0	387	66.0	4.0	8.2	87.4	0.4	100.0	585
Mashonaland East	6.5	90.7	2.8	100.0	301	77.7	7.3	8.1	84.3	0.3	100.0	387
Mashonaland West	7.9	88.2	4.0	100.0	343	66.0	4.1	12.1	83.6	0.3	100.0	519
Matabeleland North	9.5	89.2	1.3	100.0	229	67.4	2.9	19.1	75.8	2.2	100.0	340
Matabeleland South	5.8	89.2	5.0	100.0	183	75.6	2.4	7.0	77.2	13.4	100.0	243
Midlands	10.8	88.3	0.9	100.0	515	66.6	3.4	9.7	86.6	0.3	100.0	774
Masvingo	8.2	86.9	4.9	100.0	550	69.6	2.3	13.3	83.7	0.7	100.0	790
Harare	11.3	86.6	2.0	100.0	645	96.9	4.7	10.7	84.0	0.6	100.0	666
Bulawayo	14.2	84.4	1.4	100.0	243	98.0	6.0	9.7	83.9	0.4	100.0	248
Mother's education												
No education	9.7	72.2	18.1	100.0	82	38.3	4.8	10.0	84.4	0.8	100.0	213
Primary	9.8	86.7	3.5	100.0	1,124	58.5	3.1	11.8	83.1	2.0	100.0	1,922
Secondary	9.5	88.9	1.6	100.0	2,516	84.7	4.1	10.4	84.6	0.9	100.0	2,972
More than secondary	7.5	89.7	2.8	100.0	123	98.8	2.0	6.2	91.2	0.6	100.0	124
Wealth quintile												
Lowest	9.7	86.1	4.2	100.0	663	51.1	3.4	12.3	82.3	2.0	100.0	1,296
Second	8.2	88.9	2.9	100.0	694	63.5	3.3	11.5	83.7	1.5	100.0	1,093
Middle	9.6	88.6	1.8	100.0	697	76.5	5.1	8.6	85.0	1.3	100.0	911
Fourth	10.2	88.2	1.7	100.0	973	89.2	3.3	11.0	85.2	0.4	100.0	1,091
Highest	9.8	87.7	2.5	100.0	818	97.5	3.7	9.8	85.6	1.0	100.0	839
Total	9.6	87.9	2.5	100.0	3,845	73.5	3.7	10.8	84.2	1.3	100.0	5,231

¹ Based on either a written record or the mother's recall

10.2 VACCINATION OF CHILDREN

The induction of an immune response through vaccination is a widely accepted public health strategy for the prevention of vaccine-preventable infectious diseases. To enable evaluation of Expanded Programme of Immunization (EPI), the 2005-06 ZDHS collected information on vaccine coverage for all children born since January 2000. To be fully vaccinated a child should have received one dose of BCG vaccine, three doses each of DPT and polio vaccines, and one dose of measles vaccine. Zimbabwe has defined a schedule for the administration of these vaccines. BCG protects against tuberculosis, and DPT protects against diphtheria, pertussis, and tetanus. BCG should be given shortly after birth. DPT and polio require three vaccinations that should be given at approximately three, four, and five months of age, and measles should be given at or soon after reaching nine months of age.

Sources of Information

Information on vaccination coverage was collected in two ways: from child health cards shown to the interviewer and from the mother's verbal reports. The majority of the health centres and clinics in Zimbabwe provide cards on which vaccinations are recorded. If a mother was able to present such a card to the interviewer, it was used as a source of information, with the interviewer recording vaccination dates directly from the card. In addition to collecting vaccination information from cards, there were two ways of collecting the information from the mother herself. If a vaccination card had been presented, but a vaccine had not been recorded on the card as being given, the mother was asked to recall whether that particular vaccine had been given. If the mother was not able to provide a card for the child at all, she was asked to recall whether the child had received BCG, polio, DPT (including the number of doses for each), and measles vaccinations.

Vaccination Coverage

Table 10.2 provides information on the percentage of children age 12-23 months who had received specific vaccinations at the time of the survey according to the source of information. For 72 percent of the children the mother produced a vaccination card, and for 28 percent the information was based on the mother's recall.

Source of information	BCG	DPT			Polio			Measles	All basic vaccinations ¹	No vaccinations	Number of children
		1	2	3	1	2	3				
Vaccinated at any time before survey											
Vaccination card	69.6	70.4	67.0	58.7	71.0	68.0	61.5	60.6	49.8	0.4	737
Mother's report	6.1	6.5	4.9	3.3	6.0	5.5	4.3	5.1	2.8	20.6	282
Either source	75.7	76.9	71.8	62.0	77.0	73.5	65.7	65.6	52.6	21.0	1,019
Vaccinated by 12 months of age²											
	74.9	75.3	69.9	55.0	76.0	71.8	59.1	55.9	41.0	22.0	1,019

¹ BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

² For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccination.

Fifty-three percent of children 12-23 months old had received all vaccinations: 50 percent according to information recorded on the child health card and 3 percent according to information provided by the mother. Forty-one percent of the children had been fully vaccinated by the time they turned one year old. With respect to specific vaccines, children were least likely to have received DPT 3, followed by measles and polio 3. The coverage of the first dose of DPT and polio is relatively high (77 percent each). However, only 62 percent of children received the third dose of DPT and 66 percent received the third dose of polio. This represents a dropout between the first and third dose of 19 percent for DPT and 15 percent for polio.

Table 10.3 presents differentials in the proportion of children 12-23 months who had received each vaccine by the time of the survey. Female children were more likely to be fully immunized than male children (54 percent and 51 percent, respectively). Twenty-three percent of male children had not received any vaccination, compared with 19 percent of female children.

Background characteristic	BCG	DPT			Polio			Measles	All basic vaccinations ¹	No vaccinations	Percent-age with a vaccination card seen	Number of children
		1	2	3	1	2	3					
Sex												
Male	72.6	75.2	70.4	62.0	74.7	71.6	65.6	63.3	51.4	22.9	69.3	532
Female	79.2	78.7	73.4	62.0	79.6	75.7	65.9	68.2	53.8	18.9	75.5	487
Birth order												
1	78.8	79.5	74.0	63.3	80.4	76.2	69.0	72.8	57.5	18.4	73.7	330
2-3	78.5	79.1	75.9	65.8	80.0	77.4	68.6	67.3	54.7	18.9	74.9	443
4-5	69.0	68.8	66.1	57.6	69.5	66.8	60.1	61.3	49.5	28.4	68.3	157
6+	62.1	70.5	53.5	46.0	63.1	56.2	49.3	38.5	29.2	27.5	61.2	89
Residence												
Urban	79.0	78.6	75.0	67.2	80.4	78.0	73.3	71.6	58.0	18.8	74.6	309
Rural	74.3	76.1	70.5	59.8	75.6	71.6	62.5	63.1	50.2	21.9	71.3	710
Region												
Manicaland	61.4	60.7	58.5	50.2	63.6	61.6	55.1	54.5	41.2	35.7	64.3	137
Mashonaland Central	81.3	78.6	68.4	60.8	80.8	71.4	64.6	72.0	56.6	17.8	78.4	111
Mashonaland East	94.6	93.8	91.0	84.5	94.6	91.7	84.5	87.3	79.6	5.4	68.7	77
Mashonaland West	70.5	70.5	68.9	63.7	70.5	69.8	65.8	64.9	56.3	27.0	71.0	90
Matabeleland North	84.9	90.2	86.7	68.2	90.2	86.7	71.9	70.1	49.9	9.8	81.8	54
Matabeleland South	75.0	77.8	72.9	59.2	77.8	75.5	64.2	63.2	49.5	21.0	79.0	46
Midlands	74.7	73.4	68.9	56.3	73.8	69.0	57.6	55.9	42.6	22.4	74.2	155
Masvingo	72.4	80.9	73.1	61.6	76.6	74.8	66.5	63.6	50.2	18.0	71.9	170
Harare	77.3	77.1	70.3	60.1	78.2	73.9	67.3	68.5	51.3	21.8	67.2	123
Bulawayo	83.1	83.1	81.9	77.2	83.1	81.9	80.5	76.5	71.8	16.9	79.0	56
Mother's education												
No education	54.6	73.1	52.5	43.6	54.6	54.6	44.7	30.3	21.0	26.9	50.5	41
Primary	76.1	74.9	70.6	59.9	76.1	71.4	62.8	59.8	49.9	21.7	71.9	348
Secondary	76.3	77.6	73.2	63.5	78.5	75.3	68.1	70.8	55.3	20.6	73.7	604
More than secondary	(90.2)	(90.2)	(87.1)	(82.8)	(90.2)	(90.2)	(82.8)	(80.1)	(72.8)	(9.8)	(78.8)	27
Wealth quintile												
Lowest	73.2	72.9	68.7	56.3	73.1	69.9	60.8	54.2	42.9	25.1	70.2	240
Second	72.0	76.6	67.3	58.0	74.3	68.3	60.0	66.1	52.3	21.1	69.8	228
Middle	76.9	79.2	76.6	61.5	79.2	77.0	63.7	67.1	50.9	19.9	72.8	159
Fourth	78.5	77.9	74.1	67.5	80.0	77.4	72.4	70.4	56.5	18.3	75.0	243
Highest	79.5	79.3	75.0	69.1	80.4	77.5	73.8	74.0	63.8	19.6	74.5	149
Total	75.7	76.9	71.8	62.0	77.0	73.5	65.7	65.6	52.6	21.0	72.3	1,019

Note: Figures in parentheses are based on 25-49 unweighted cases.
¹ BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Birth order is negatively associated with vaccination coverage; whereas 58 percent of first-order births had received all vaccinations, the percentage of children of the sixth or higher birth order fully vaccinated was 29 percent. Similarly, higher-order children were also more likely not to have received any vaccinations than first-born children (28 percent and 18 percent, respectively). There were also differences in the availability of vaccination cards according to birth order, 74 percent of first-born children had a card, compared with 61 percent of children of birth order six and above.

Children in urban areas have better vaccination coverage than those in rural areas. The ZDHS found that 58 percent of urban children were fully vaccinated compared with 50 percent of rural children, and children in urban areas were less likely than those in rural areas to have received no vaccinations (19 percent and 22 percent, respectively). Children in urban areas were more likely to have a health card than children in rural areas (75 percent and 71 percent, respectively).

Substantial differentials in vaccination coverage are observed by province. Mashonaland East (80 percent) had the highest overall coverage, followed by Bulawayo (72 percent). The lowest coverage was recorded in Manicaland (41 percent) and Midlands (43 percent). In the remaining provinces, vaccination coverage ranged from 50 percent in Matabeleland South, Matabeleland North, and Masvingo, to 57 percent in Mashonaland Central. The highest percentage of children who have not been vaccinated at all was found in Manicaland province (36 percent). The percentage of such children in the remaining provinces ranges from 5 percent in Mashonaland East to 27 percent in Mashonaland West. Notably, more than one-fifth of the children in Harare (22 percent) have never received any vaccinations. The highest percentage of children with vaccination cards seen by the ZDHS interviewers was registered in Matabeleland North (82 percent) and the lowest in Manicaland (64 percent).

The mother's level of education relates to her children's vaccination status. More than half of children of mothers with a secondary or higher education have received all of the recommended vaccinations compared with one-fifth of children whose mothers have no education. Conversely, children whose mothers have no education are more likely to have received none of the recommended vaccinations than children whose mothers had secondary education (27 percent and 21 percent, respectively). Children of mothers with a secondary education are more likely to have a vaccination card than mothers of children who have no education (74 percent and 51 percent, respectively).

The proportion receiving all vaccinations rose from 43 percent among children in the lowest wealth quintile to 64 percent among those in the highest wealth quintile. As the wealth quintile rises, the proportion of children who have never been vaccinated declines; nevertheless, 20 percent of children in the highest wealth quintile have never been vaccinated.

Trends in Vaccination Coverage

Table 10.4 shows trends in vaccination coverage among children age 12-23 months between the 1994 and 2005-2006 ZDHS surveys. Comparison of the 2005-2006 results with those of the earlier surveys shows there has been a sharp decline in vaccination coverage in Zimbabwe. Whereas in 1994 the coverage for all vaccines was 80 percent, it had dropped to 53 percent at the time of the 2005-06 ZDHS. The percentage of children age 12-23 months who had not received any vaccinations was more than five times higher in 2005-2006 than in 1994 (4 percent and 21 percent, respectively). The coverage of vaccination cards improved from 69 percent in the 1999 ZDHS to 72 percent in the 2005-2006 ZDHS, but was still considerably below the level achieved in 1994 (79 percent).

Table 10.4 Trends in vaccination coverage

Percentage of children age 12-23 months who received specific vaccines at any time prior to the survey, and percentage with a vaccination card, Zimbabwe 1994-2006

Source	BCG	DPT			Polio			Measles	All basic vaccinations ¹	No vaccinations	Percentage with a vaccination card seen	Number of children
		1	2	3	1	2	3					
1994 ZDHS	95.7	94.2	91.5	85.2	94.5	91.9	85.4	86.3	80.1	4.1	79.1	691
1999 ZDHS	88.1	87.5	85.0	80.9	87.7	85.1	80.7	79.1	74.8	11.6	68.6	699
2005-2006 ZDHS	75.7	76.9	71.8	62.0	77.0	73.5	65.7	65.6	52.6	21.0	72.3	1,019

¹ BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

10.3 PREVALENCE AND TREATMENT OF ACUTE RESPIRATORY INFECTION

Acute respiratory infections (ARI), primarily pneumonia, are a common cause of illness and death in infancy and childhood. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths from pneumonia. Thus, emphasis is placed on recognition of these signs of impending severity, both among mothers and primary health workers, so that help can be sought.

In the 2005-06 ZDHS, the prevalence of ARI was determined based on the mother's perception of the illness and was not validated by medical personnel. Mothers were asked whether their children under the age of five had been ill with a cough accompanied by short, rapid breathing that was chest-related in two weeks preceding the survey. Mothers who reported that their children had had ARI symptoms were asked about the actions they had taken to treat the illness. Previous DHS surveys in Zimbabwe did not include a probe as to whether or not cough and breathing problems were chest-related; consequently, the 2005-2006 ZDHS results relating to ARI prevalence and treatment are not directly comparable to the ARI findings in earlier ZDHS surveys.

Table 10.5 shows that the 6 percent of children experienced symptoms of an ARI during the two weeks prior to the ZDHS. A medical provider or health facility was consulted in the case of 25 percent of the children suffering from ARI symptoms, and 8 percent of the children were reported to have been given antibiotics.

Table 10.5 also shows differentials in the prevalence and treatment of ARI symptoms. Because the number of children experiencing ARI symptoms is small in many subgroups, caution should be used in interpreting the treatment differentials. Both the likelihood that treatment was sought and antibiotics were administered rises with a child's age, peaking among children age 36-47 months. Treatment was sought more often for girls than boys, while boys and girls were equally likely to receive antibiotics. One-third of urban children ill with ARI symptoms were taken to a health provider or facility compared with one-quarter of rural children, and urban children were nearly five times as likely as rural children to receive antibiotics.

Table 10.5 Prevalence and treatment of symptoms of acute respiratory infection

Among children under age five, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey, and among children with symptoms of ARI, the percentage who received specific treatments, according to background characteristics, Zimbabwe 2005-2006

Background characteristic	Children under age five		Children under age five with symptoms of ARI		
	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom treatment was sought from a health facility or provider ²	Percentage who received antibiotics	Number of children
Age in months					
<6	4.6	520	(19.7)	(0.0)	24
6-11	7.0	526	(22.3)	(2.9)	37
12-23	5.1	1,019	19.4	8.1	52
24-35	5.6	936	21.8	12.1	52
36-47	6.3	914	39.5	13.1	57
48-59	5.6	956	21.6	4.8	54
Sex					
Male	5.9	2,484	19.8	7.9	145
Female	5.5	2,387	30.6	7.8	130
Cooking fuel					
Solid fuels	6.8	3,559	22.8	4.6	241
Other fuels ³	2.6	1,311	(39.9)	(30.4)	34
Residence					
Urban	2.8	1,417	(32.7)	(24.6)	40
Rural	6.8	3,454	23.6	5.0	236
Region					
Manicaland	3.3	610	(32.4)	(11.0)	20
Mashonaland Central	3.5	548	*	*	19
Mashonaland East	5.3	367	*	*	19
Mashonaland West	6.3	481	(14.8)	(1.8)	30
Matabeleland North	6.5	320	(24.9)	(5.1)	21
Matabeleland South	3.2	232	*	*	7
Midlands	13.6	722	18.0	4.3	98
Masvingo	5.1	738	(46.0)	(14.0)	38
Harare	3.1	620	*	*	19
Bulawayo	1.3	234	*	*	3
Mother's education					
No education	10.2	199	*	*	20
Primary	6.7	1,789	21.1	3.8	120
Secondary	4.8	2,764	26.4	11.9	132
More than secondary	2.6	119	*	*	3
Wealth quintile					
Lowest	7.2	1,205	9.0	1.0	87
Second	8.1	1,009	33.5	7.9	81
Middle	6.7	845	31.0	6.8	57
Fourth	3.3	1,024	(22.7)	(4.3)	34
Highest	2.0	787	*	*	16
Total	5.7	4,871	24.9	7.9	276

Note: Total includes 1 case for which information on type of cooking fuel is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) is considered a proxy for pneumonia.

² Excludes pharmacy, shop, and traditional practitioner

³ Includes straw, shrubs, grass, and animal dung

10.4 PREVALENCE AND TREATMENT OF FEVER

Fever is a manifestation of malaria, but it also frequently accompanies various other illnesses including pneumonia, common colds, and influenza. Because malaria is an important contributory cause of death in infancy and childhood in many developing countries, presumptive treatment of fever with antimalarial drugs is advocated in many countries where malaria is endemic.

Information was obtained from mothers in the 2005-06 ZDHS on the prevalence of fever among children under age five in the two weeks before the survey. For children with fever, mothers were also asked about the actions that were taken to treat fever, including whether or not the child had been given any drugs to treat the fever, and, if so, what type of drug the child was given, i.e., antimalarials, antibiotics, etc.

Table 10.6 provides basic information on the prevalence of fever and treatment practices. Additional information on the use of antimalarials for the treatment of fever is included in Chapter 12.

Overall, 8 percent of children under age five were reported to have had a fever during the two weeks prior to the survey. Treatment was sought from a health provider or facility for 27 percent of the children with fever. Children with fever were more than twice as likely to have received an antibiotic as an antimalarial (13 percent and 5 percent, respectively). The relatively small number of children with fever limits interpretation of the differentials in the treatment patterns associated with many of the characteristics in Table 10.6. Particularly noteworthy, however, are the differences in the way fever is managed between urban and rural areas. Rural children experiencing a fever were almost as likely to receive an antimalarial as an antibiotic, while virtually all urban children who were given any drug to treat their fever received an antibiotic.

Table 10.6 Prevalence and treatment of fever

Among children under age five, the percentage who had a fever in the two weeks preceding the survey; and among children with fever, the percentage of children with fever for whom treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who took antibiotic drugs, by background characteristics, Zimbabwe 2005-2006

Background characteristic	Children under age five		Children under age five with fever			Number of children
	Percentage with fever	Number of children	Percentage for whom treatment was sought from a health facility or provider ¹	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	
Age in months						
<6	6.4	520	(29.1)	(0.0)	(8.6)	33
6-11	7.0	526	(21.6)	(2.4)	(9.6)	37
12-23	8.7	1,019	30.3	4.9	16.1	89
24-35	7.4	936	30.9	8.0	17.0	69
36-47	8.9	914	22.0	3.8	9.4	82
48-59	5.9	956	24.8	6.1	9.7	57
Sex						
Male	7.3	2,484	26.1	2.8	12.9	181
Female	7.8	2,387	27.4	6.6	12.1	186
Residence						
Urban	7.3	1,417	25.7	0.7	26.6	103
Rural	7.6	3,454	27.2	6.3	7.0	263
Region						
Manicaland	8.9	610	22.5	0.9	7.9	54
Mashonaland Central	9.2	548	25.0	12.5	10.0	51
Mashonaland East	8.5	367	16.3	(2.8)	(6.2)	31
Mashonaland West	11.5	481	38.0	5.3	9.8	55
Matabeleland North	3.9	320	40.5	*	*	13
Matabeleland South	7.5	232	41.1	(0.0)	(0.0)	17
Midlands	6.6	722	20.8	0.0	1.8	48
Masvingo	3.8	738	33.3	(7.6)	(21.6)	28
Harare	9.8	620	22.4	(0.0)	(30.7)	61
Bulawayo	3.5	234	23.1	*	*	8
Mother's education						
No education	10.8	199	36.2	(7.1)	(0.0)	21
Primary	8.4	1,789	25.9	7.0	10.3	149
Secondary	6.9	2,764	26.6	2.8	16.0	191
More than secondary	4.2	119	19.5	*	*	5
Wealth quintile						
Lowest	7.6	1,205	21.6	6.7	5.7	92
Second	7.7	1,009	29.6	6.2	4.3	78
Middle	9.3	845	28.6	5.0	8.4	79
Fourth	6.2	1,024	27.2	2.6	15.5	63
Highest	7.0	787	28.3	(1.4)	(37.8)	55
Total	7.5	4,871	26.8	4.7	12.5	367

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Excludes pharmacy, shop, and traditional practitioner

10.5 PREVALENCE AND TREATMENT OF DIARRHOEA

Dehydration caused by severe diarrhoea is a major cause of morbidity and mortality among young children. A simple and effective response to dehydration is a prompt increase in fluid intake, i.e., oral rehydration therapy (ORT). In Zimbabwe, the use of a sugar-salt-water solution to combat dehydration from diarrhoea is the particular method of ORT promoted by the Control of Diarrhoeal Disease Programme in the Ministry of Health.

The 2005-06 ZDHS obtained information on the prevalence of diarrhoea among young children by asking mothers whether their children under age five had had diarrhoea during the two-week period prior to the survey. If a child had had diarrhoea, the mother was asked about whether there had been any blood in the child's stools. Diarrhoea with blood in the stools is indicative of cholera or other diseases that need to be treated differently than diarrhoea in which there is no blood in the stool. Mothers of children who were ill with any form of diarrhoea during the two-week period before the survey were asked about what actions they had taken to treat the diarrhoea and about feeding practices during the diarrhoeal episode.

Table 10.7 shows that 12 percent of children under age five were ill with some form of diarrhoea in the two weeks preceding the ZDHS interview, and 2 percent of the children had diarrhoea with bloody stools. Diarrhoeal episodes peaked among children age 6-35 months. Diarrhoea was somewhat less prevalent among children living in households with improved toilet and drinking water facilities. Rural children were more likely to have had diarrhoea than urban children, and the prevalence of diarrhoea was highest in Masvingo (16 percent) and lowest in Bulawayo (6 percent). Diarrhoeal prevalence generally declined with both the mother's education and the wealth quintile.

Table 10.7 Prevalence of diarrhoea

Percentage of children under five years with diarrhoea in the two weeks preceding the survey, by background characteristics, Zimbabwe 2005-2006

Background characteristic	Diarrhoea in the two weeks preceding the survey		
	All diarrhoea	Diarrhoea with blood	Number of children
Age in months			
<6	6.5	1.3	520
6-11	21.9	3.4	526
12-23	19.5	2.2	1,019
24-35	13.4	2.7	936
36-47	8.6	2.2	914
48-59	5.6	0.8	956
Sex			
Male	13.1	2.2	2,484
Female	11.8	2.0	2,387
Source of drinking water¹			
Improved	11.2	1.7	3,506
Not improved	15.5	3.1	1,365
Toilet facility²			
Improved, not shared	10.3	1.3	1,700
Non-improved	13.5	2.5	3,159
Residence			
Urban	9.1	1.1	1,417
Rural	13.8	2.5	3,454
Region			
Manicaland	14.9	2.0	610
Mashonaland Central	10.8	1.2	548
Mashonaland East	12.6	1.3	367
Mashonaland West	14.1	3.2	481
Matabeleland North	9.7	3.0	320
Matabeleland South	14.6	2.6	232
Midlands	12.8	2.3	722
Masvingo	15.5	3.1	738
Harare	8.9	0.7	620
Bulawayo	6.1	1.2	234
Mother's education			
No education	14.6	3.0	199
Primary	14.0	3.2	1,789
Secondary	11.4	1.4	2,764
More than secondary	8.7	0.8	119
Wealth quintile			
Lowest	14.8	3.4	1,205
Second	13.4	1.8	1,009
Middle	14.5	2.3	845
Fourth	10.4	1.6	1,024
Highest	8.1	0.7	787
Total	12.4	2.1	4,871

Note: Total includes 12 cases for which information on type of toilet facility is missing.

¹ See Table 2.6 for definition of categories.

² See Table 2.7 for definition of categories.

Table 10.8 shows that treatment was sought from a health facility/provider for 32 percent of the children suffering from diarrhoea. Some form of ORT was used to treat the diarrhoea in the majority of children (70 percent), with 61 percent given home fluids, 32 percent receiving increased amounts of other fluids, and 6 percent getting a solution made from an oral rehydration salts (ORS) packet or a prepackaged ORS solution. Home remedies were used in treating a considerable proportion of children (18 percent), while 6 percent were given an antibiotic and an insignificant proportion were treated with intravenous solutions. One in four children with diarrhoea did not receive any treatment.

Table 10.8 Diarrhoea treatment

Among children under age five who had diarrhoea in the two weeks preceding the survey, the percentage who were taken for treatment to a health provider, the percentage who received oral rehydration therapy (ORT), and the percentage who were given other treatments, by background characteristics, Zimbabwe 2005-2006

Background characteristic	Percentage of children with diarrhoea taken to a health provider ¹	Oral rehydration therapy (ORT)					Other treatments					Number of children
		ORS packets or pre-packaged liquid	Recommended home fluids (RHF)	Either ORS or RHF	Increased fluids	Any ORT	Anti-biotic drugs	Intra-venous solution	Home remedy/ other	Missing	No treatment	
Age in months												
<6	(12.4)	(3.1)	(43.0)	(43.0)	(22.1)	(48.7)	(3.8)	(0.0)	(7.4)	(1.9)	(42.1)	34
6-11	36.0	5.0	49.1	49.9	22.9	59.5	5.6	0.0	24.3	0.0	35.4	115
12-23	35.6	6.3	65.8	67.0	33.5	75.1	6.1	0.0	13.9	0.3	20.9	199
24-35	30.2	5.8	60.6	61.8	39.5	72.9	7.4	0.6	17.5	0.6	22.4	125
36-47	40.8	4.2	68.7	68.7	25.1	71.6	8.4	0.0	30.3	0.8	21.7	78
48-59	14.0	8.0	66.5	68.1	48.6	78.2	4.8	0.0	14.0	1.2	20.6	54
Sex												
Male	32.0	5.4	63.7	64.6	31.3	71.3	6.5	0.3	18.0	0.8	23.1	324
Female	32.1	5.9	57.2	58.2	33.6	68.5	6.1	0.0	18.8	0.2	27.7	281
Type of diarrhoea												
Non bloody	30.4	6.0	59.8	61.0	33.6	70.4	5.6	0.2	18.5	0.3	25.2	504
Bloody	40.0	3.7	65.4	65.4	26.0	68.4	9.9	0.0	17.6	1.3	25.7	101
Residence												
Urban	39.1	10.2	70.5	71.8	46.7	80.6	14.7	0.6	18.8	0.0	16.5	129
Rural	30.1	4.4	58.0	58.9	28.4	67.1	4.0	0.0	18.2	0.7	27.6	476
Region												
Manicaland	24.2	14.7	66.3	67.3	31.6	70.7	2.6	0.0	10.8	0.0	28.0	91
Mashonaland Central	29.8	0.0	52.4	52.4	55.8	71.8	6.5	0.0	23.9	0.0	22.3	59
Mashonaland East	(21.9)	(5.4)	(54.6)	(58.4)	(43.4)	(74.8)	(5.2)	(0.0)	(14.5)	(1.3)	(22.2)	46
Mashonaland West	39.5	3.2	59.7	60.5	38.3	66.6	8.4	0.0	25.4	1.9	22.9	68
Matabeleland North	(43.8)	(0.0)	(48.2)	(48.2)	(21.3)	(56.6)	(3.7)	(0.0)	(13.2)	(0.0)	(34.9)	31
Matabeleland South	37.4	9.6	56.2	58.2	24.6	63.9	15.1	0.0	26.3	0.0	27.5	34
Midlands	27.9	2.2	60.4	60.4	15.6	66.6	0.9	0.0	15.6	0.7	30.3	93
Masvingo	36.4	2.5	63.7	63.7	24.0	72.5	5.1	0.0	25.3	0.7	23.4	115
Harare	30.7	9.9	68.0	69.1	49.9	75.1	13.5	0.0	4.1	0.0	20.2	55
Bulawayo	*	*	*	*	*	*	*	*	*	*	*	14
Mother's education												
No education	(22.0)	(0.0)	(40.4)	(40.4)	(48.6)	(61.4)	(3.0)	(0.0)	(21.6)	(0.0)	(36.0)	29
Primary	29.0	3.9	59.0	59.7	29.0	67.2	5.1	0.0	15.8	0.8	26.6	250
Secondary	34.4	6.5	63.8	64.4	32.5	72.3	6.9	0.0	20.1	0.4	23.6	316
More than secondary	*	*	*	*	*	*	*	*	*	*	*	10
Wealth quintile												
Lowest	37.2	3.2	55.6	56.0	21.4	65.4	2.4	0.0	25.2	0.0	29.7	178
Second	18.4	5.0	57.0	58.2	33.0	67.2	2.4	0.0	12.7	0.9	27.5	135
Middle	33.6	5.1	64.1	64.8	34.3	71.4	8.1	0.0	13.0	0.6	23.8	122
Fourth	27.8	6.0	67.9	68.5	37.7	74.2	7.8	0.0	20.6	1.2	22.7	107
Highest	50.4	14.2	64.1	67.2	48.9	79.1	19.7	1.3	17.8	0.0	15.1	64
Total	32.0	5.6	60.7	61.6	32.3	70.0	6.3	0.1	18.4	0.5	25.2	606

Note: ORT includes solution prepared from oral rehydration salt (ORS) packets, recommended home fluids (RHF), or increased fluids. Total includes 1 case for which information on type of diarrhoea is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ Excludes pharmacy, shop, and traditional practitioner

Older children were more likely to receive some type of treatment than children under age one. The child's sex had little impact on the kind of treatment a child received. Children in urban areas were more likely to get some treatment than their rural counterparts, and the likelihood that a child with diarrhoea would receive some form of treatment generally increased with the mother's education.

Finally, it is recommended that a child with diarrhoea should be given more liquids to drink, and food should not be reduced. Table 10.9 shows that 32 percent of children with diarrhoea were given more fluids during the illness, 35 percent were given the same amount as usual, and 30 percent were given less to drink. More than half of those given less to drink—16 percent of all children with diarrhoea—were given much less to drink. With respect to food intake during diarrhoeal episodes, 9 percent of children were given more food and 34 percent maintained their food intake. One in four children was given less food than usual, and 6 percent were not given any food. Food and liquid intake were more likely to be curtailed if the child had bloody than non-bloody diarrhoea. Rural children appear to be more likely to be given less food and liquids during a diarrhoeal episode than urban children.

Table 10.9 Feeding practices during diarrhoea

Percent distribution of children under five years who had diarrhoea in the two weeks preceding the survey, by amount of liquids and food offered compared with normal practice, by background characteristics, Zimbabwe 2005-2006

Background characteristic	Amount of liquids offered							Amount of food offered							Number of children with diarrhoea	
	More	Same as usual	Some-what less	Much less	None	Don't know/missing	Total	More	Same as usual	Some-what less	Much less	None	Never gave food ¹	Don't know/missing		Total
Age in months																
<6	(22.1)	(32.7)	(1.9)	(28.1)	(15.3)	(0.0)	100.0	(3.1)	(40.3)	(21.5)	(12.6)	(0.0)	(22.5)	(0.0)	100.0	34
6-11	22.9	30.3	24.6	18.1	4.2	0.0	100.0	12.2	28.5	24.1	25.5	4.7	5.0	0.0	100.0	115
12-23	33.5	35.8	13.8	15.2	1.7	0.0	100.0	5.5	28.5	28.7	28.1	7.3	2.0	0.0	100.0	199
24-35	39.5	33.8	12.8	13.9	0.0	0.0	100.0	14.6	36.3	20.1	18.6	10.4	0.0	0.0	100.0	125
36-47	25.1	46.8	10.9	15.1	1.3	0.8	100.0	5.6	45.0	19.9	23.9	4.7	0.0	0.8	100.0	78
48-59	48.6	28.0	2.2	16.2	5.0	0.0	100.0	13.3	36.5	18.8	31.4	0.0	0.0	0.0	100.0	54
Sex																
Male	31.3	35.6	16.3	12.8	3.8	0.2	100.0	8.3	33.6	26.2	22.2	7.1	2.3	0.2	100.0	324
Female	33.6	34.0	10.4	20.3	1.7	0.0	100.0	10.3	33.6	20.6	27.1	4.8	3.5	0.0	100.0	281
Type of diarrhoea																
Non bloody	33.6	35.8	13.3	14.4	2.8	0.0	100.0	10.5	34.7	24.2	23.1	5.0	2.5	0.0	100.0	504
Bloody	26.0	30.5	14.9	25.7	2.9	0.0	100.0	3.1	28.4	21.0	31.9	11.0	4.6	0.0	100.0	101
Residence																
Urban	46.7	38.4	6.0	7.9	1.0	0.0	100.0	12.3	40.1	20.0	26.1	1.0	0.5	0.0	100.0	129
Rural	28.4	34.0	15.6	18.6	3.3	0.1	100.0	8.4	31.9	24.6	24.1	7.4	3.5	0.1	100.0	476
Region																
Manicaland	31.6	35.9	7.2	23.4	1.9	0.0	100.0	11.0	28.3	25.6	31.8	0.5	2.9	0.0	100.0	91
Mashonaland Central	55.8	19.9	6.2	18.1	0.0	0.0	100.0	12.5	25.0	29.4	14.3	12.7	6.1	0.0	100.0	59
Mashonaland East	(43.4)	(26.3)	(8.6)	(15.0)	(6.7)	(0.0)	100.0	(17.7)	(29.1)	(22.3)	(27.5)	(3.3)	(0.0)	(0.0)	100.0	46
Mashonaland West	38.3	32.5	8.3	18.8	2.2	0.0	100.0	11.3	42.5	10.9	28.9	4.7	1.7	0.0	100.0	68
Matabeleland North	(21.3)	(55.8)	(19.6)	(3.2)	(0.0)	(0.0)	100.0	(9.0)	(46.4)	(35.0)	(9.7)	(0.0)	(0.0)	(0.0)	100.0	31
Matabeleland South	24.6	51.3	21.6	2.4	0.0	0.0	100.0	9.5	45.9	31.2	9.7	0.0	3.7	0.0	100.0	34
Midlands	15.6	25.4	14.9	37.7	5.7	0.7	100.0	2.6	28.5	19.8	34.8	11.5	2.1	0.7	100.0	93
Masvingo	24.0	39.9	26.5	4.8	4.8	0.0	100.0	6.3	34.8	25.1	17.1	11.5	5.2	0.0	100.0	115
Harare	49.9	36.0	5.5	8.6	0.0	0.0	100.0	12.9	37.8	23.2	26.1	0.0	0.0	0.0	100.0	55
Bulawayo	25.2	63.5	11.3	0.0	0.0	0.0	100.0	0.0	26.7	24.5	44.2	0.0	4.6	0.0	100.0	14
Mother's education																
No education	(48.6)	(15.9)	(5.0)	(30.5)	(0.0)	(0.0)	100.0	(15.1)	(29.5)	(23.5)	(17.5)	(11.2)	(3.3)	(0.0)	100.0	29
Primary	29.0	37.5	13.7	16.0	3.7	0.0	100.0	6.1	33.7	24.4	23.8	8.8	3.3	0.0	100.0	250
Secondary	32.5	34.7	14.3	15.7	2.5	0.2	100.0	11.0	34.1	23.1	25.5	3.6	2.6	0.2	100.0	316
More than secondary	*	*	*	*	*	*	100.0	*	*	*	*	*	*	*	100.0	10
Wealth quintile																
Lowest	21.4	33.4	16.5	24.8	3.9	0.0	100.0	4.5	28.9	26.8	26.0	10.7	3.0	0.0	100.0	178
Second	33.0	34.5	15.8	13.9	2.9	0.0	100.0	8.9	37.8	23.0	18.8	7.2	4.3	0.0	100.0	135
Middle	34.3	32.7	12.9	17.3	2.8	0.0	100.0	14.0	28.3	26.6	24.3	3.6	3.1	0.0	100.0	122
Fourth	37.7	37.3	9.7	12.2	2.4	0.6	100.0	9.4	37.9	17.8	29.6	3.0	1.6	0.6	100.0	107
Highest	48.9	40.1	8.5	2.5	0.0	0.0	100.0	13.7	40.9	20.1	24.3	0.0	1.0	0.0	100.0	64
Total	32.3	34.9	13.6	16.3	2.8	0.1	100.0	9.2	33.6	23.6	24.5	6.0	2.9	0.1	100.0	606

Note: Total includes 1 case for which information on type of diarrhoea is missing. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

¹ The category "never gave food" refers to children who were only breastfed or otherwise at a stage where solid foods had not yet been introduced into their diets.

10.6 DISPOSAL OF CHILDREN'S STOOLS

The proper disposal of children's faeces is important in preventing the spread of disease. If faeces are left uncontained, disease may be spread by direct contact or through animal contact. The safe disposal of children's faeces is of particular importance because children's faeces are more likely to be the cause of faecal contamination to the household environment than other causes as they are often not disposed of properly and may be mistakenly considered less harmful than adult faeces. Table 10.10 presents information on the disposal of young children's most recent stools; children's stools are considered to be appropriately contained if the child used a toilet or latrine, the child's stool was put or rinsed into a toilet or latrine, or the stool was buried.

Background characteristic	Children's stools contained			Children's stools uncontained			Other	Missing	Total	Number of mothers
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open				
Age in months										
<6	5.7	51.2	9.8	13.7	12.8	5.4	1.2	0.2	100.0	513
6-11	5.5	53.0	14.2	9.8	7.1	7.3	3.0	0.1	100.0	509
12-23	10.5	47.9	16.6	5.7	4.4	10.1	4.5	0.4	100.0	975
24-35	37.9	28.3	12.0	0.6	2.5	15.2	2.8	0.6	100.0	726
36-47	49.4	15.4	8.5	1.1	2.8	15.3	6.8	0.7	100.0	548
48-59	61.1	11.4	11.8	0.7	1.1	9.9	3.1	1.0	100.0	438
Toilet facility										
Improved, not shared ¹	39.2	52.3	2.2	2.4	1.4	1.5	0.4	0.6	100.0	1,334
Non-improved	18.9	27.0	18.6	6.6	7.0	16.0	5.5	0.4	100.0	2,364
Residence										
Urban	46.2	50.9	0.3	1.3	0.3	0.0	0.1	0.8	100.0	1,109
Rural	17.7	29.8	17.9	6.7	7.0	15.4	5.2	0.3	100.0	2,599
Region										
Manicaland	24.1	49.2	7.6	5.6	4.4	5.9	2.6	0.6	100.0	454
Mashonaland Central	23.8	36.5	12.1	4.2	4.6	18.0	0.3	0.5	100.0	426
Mashonaland East	20.3	50.6	13.8	4.6	7.7	2.3	0.4	0.4	100.0	293
Mashonaland West	33.3	26.8	10.0	3.1	8.2	12.4	6.3	0.0	100.0	377
Matabeleland North	18.6	19.3	33.7	9.6	4.1	9.1	5.5	0.0	100.0	247
Matabeleland South	21.9	34.7	14.0	1.4	9.6	16.5	1.1	0.8	100.0	166
Midlands	21.9	30.5	14.0	9.1	4.9	18.7	0.6	0.4	100.0	528
Masvingo	13.0	18.2	22.2	7.4	7.0	17.4	14.2	0.6	100.0	548
Harare	49.5	47.9	0.4	1.2	0.0	0.0	0.3	0.7	100.0	487
Bulawayo	36.8	61.3	0.0	0.0	0.5	0.0	0.0	1.3	100.0	181
Education										
No education	19.8	14.8	20.7	4.9	6.2	18.7	14.5	0.4	100.0	158
Primary	17.0	27.0	18.0	6.6	7.6	17.5	5.9	0.4	100.0	1,320
Secondary	31.8	42.8	9.2	4.3	3.4	6.6	1.6	0.4	100.0	2,140
More than secondary	41.1	47.2	1.3	2.3	2.4	0.0	1.7	3.9	100.0	90
Wealth quintile										
Lowest	9.5	12.2	26.0	7.4	9.5	24.6	10.5	0.3	100.0	868
Second	15.6	26.3	21.7	7.8	8.3	15.6	4.4	0.3	100.0	766
Middle	26.0	45.4	9.3	5.2	4.5	8.0	1.2	0.4	100.0	663
Fourth	36.4	56.0	1.6	2.9	0.8	1.8	0.2	0.3	100.0	789
Highest	50.0	46.5	0.2	1.4	0.3	0.0	0.2	1.3	100.0	622
Total	26.2	36.1	12.6	5.1	5.0	10.8	3.7	0.5	100.0	3,708

Note: Total includes 10 cases for which information on the type of toilet facility is missing.
¹ Non-shared facilities that are of the types flush or pour flush into a piped sewer system/septic tank/pit latrine, ventilated improved pit (VIP) latrine, pit latrine with a slab, and a composting toilet.

The table shows that, in the case of 75 percent of children, faecal matter was contained in one way or the other. Access to a toilet or latrine is clearly a factor in determining whether or not faecal matter was contained. For example, urban mothers were more likely to report that children's stools were contained than rural mothers. The proportion of mothers reporting that stools were disposed of in a contained manner also rose with mother's education and the wealth quintile.