CHILD HEALTH 9

The Government of India has been taking steps to strengthen maternal and child health services in India since the First Five Year Plan (1951-56). The Ministry of Health and Family Welfare has sponsored special projects under the Maternal and Child Health Programme, including the Oral Rehydration Therapy (ORT) programme, the establishment of Regional Institutes of Maternal and Child Health in states with high infant mortality rates, the Universal Immunization Programme, and the Maternal and Child Health Supplemental Programme within the Postpartum Programme (Ministry of Health and Family Welfare, 1992). All these programmes are now integrated into the Reproductive and Child Health Programme that was launched in 1996. The Department of Women and Child Development within the Ministry of Human Resource Development initiated the Integrated Child Development Services (ICDS) in 1976. Under the ICDS programme, *anganwadi* centres provide children with health, nutrition, and education services from birth to six years of age and a nutritional and health services to pregnant and breastfeeding mothers.

This chapter presents NFHS-3 findings on several areas of importance to child health: characteristics of the neonate (birth weight and size at birth), vaccination status of children, and treatment of childhood illnesses. Information on birth weight and birth size is important for the design and implementation of programmes aimed at reducing neonatal and infant mortality. Vaccination coverage information focuses on the age group 12-23 months, the age by which children should have received all basic vaccinations. Overall coverage levels are shown for this age group at the time of the survey and by 12 months of age. Additionally, the source of the vaccination information (whether based on a written vaccination card or on mother's recall) is shown. Differences in vaccination coverage between subgroups of the population aid in programme planning.

Treatment practices and contact with health services among children ill with the three most important childhood illnesses (acute respiratory infection, fever, and diarrhoea) help in the assessment of national programmes aimed at reducing the mortality impact of these illnesses. Information is provided on the prevalence and treatment of acute respiratory infection (ARI), including treatment with antibiotics, and the prevalence of fever and its treatment with antimalarial drugs and antibiotics. Data on the treatment of diarrhoeal disease with oral rehydration therapy and increased fluids aids in the assessment of programmes that recommend such treatment. Because appropriate sanitary practices can help prevent and reduce the severity of diarrhoeal disease, information is also provided on the manner of disposing of children's faecal matter. Finally, the chapter provides information on the utilization of health, education, and nutrition services provided under the ICDS programme by *anganwadi* centres to children and their mothers. In NFHS-3, information on child health and health-care practices was collected from mothers for children born since 1 January, 2000 (in states that began fieldwork in 2005) and since 1 January, 2001 (in states that began fieldwork in 2006). Information was collected for all live births. The information on child health presented in this chapter pertains only to children born during the five years preceding the survey unless otherwise specified.

9.1 CHILD'S SIZE AT BIRTH

Birth weight is an important indicator of a child's vulnerability to the risk of childhood illness and chances of survival. In the absence of birth weight, a mother's subjective assessment of the size of the baby at birth is a useful proxy for birth weight. Children whose birth weight is less than 2.5 kilogrammes, or children reported to be 'very small' or 'smaller than average' are considered to have a higher than average risk of early childhood death. Birth weight was recorded in the NFHS-3 questionnaire for births in the five years preceding the survey either from a written record or the mother's recall. Since birth weight may not be known for many babies, the mother's estimate of the baby's size at birth was obtained for all births. Table 9.1 presents information on children's weight and size at birth according to background characteristics.

In NFHS-3, a birth weight was recorded for 34 percent of babies born in the five years preceding the survey; this weight came either from a weight recorded on a health card or from the mother's memory (recall). A small percentage of mothers reported that the baby was weighed at birth but did not have a record of the weight and did not remember the birth weight. The proportion of births with a reported birth weight is 60 percent in urban areas and 25 percent in rural areas. Since the sample of births for which weights are reported is only one-third of all births, results on birth weight should be interpreted with caution.

Among children for whom birth weight was reported, 22 percent had a low birth weight, that is, they weighed less than 2.5 kilogrammes. The proportion weighing less than 2.5 kilogrammes is slightly higher in rural areas (23 percent) than in urban areas (19 percent). The proportion of births with a low birth weight is greater among children born to Jain women, young women (age at birth <20 years), Sikh women, and women who use tobacco. The proportion of births with a low birth weight declines with increases in the wealth quintile and with increasing education.

Table 9.1 also shows the distribution of all births born in the five years preceding the survey by the mother's report of the baby's size at birth. Size at birth was reported for all babies, regardless of whether or not they were weighed at birth. Fifteen percent of babies were reported by the mother to have been smaller than average and 6 percent were reported to have been very small, resulting in a total of 21 percent reported to have been of smaller than average size. The patterns by background characteristics in the proportion of babies reported to have been small or very small at birth are similar to the patterns found in birth weight by background characteristics.

Table 9.1 Child's size at birth

Among live births in the five years preceding the survey, percent distribution by birth weight and percentage whose birth weight was reported, 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, India, 2005-06

Background characteristic	Percent distribution of births with a reported birth weight[1]				Percentage of live births whose birth weight was reported[1]	Percent distribution of all live births by size of child at birth					
	Less than 2.5 kg	2.5 kg or more	Total	Number of births		Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	26.1	73.9	100.0	3,901	32.8	7.1	15.9	75.0	2.0	100.0	11,882
20-34	20.4	79.6	100.0	14,918	35.4	5.7	14.6	78.4	1.3	100.0	42,155
35-49	20.1	79.9	100.0	430	17.9	6.2	13.7	78.7	1.5	100.0	2,400
Birth order											
1	22.3	77.7	100.0	8,557	50.0	6.5	15.1	76.9	1.5	100.0	17,106
2-3	20.2	79.8	100.0	8,785	36.0	5.6	14.4	78.5	1.4	100.0	24,429
4-5	24.6	75.4	100.0	1,509	15.8	5.9	15.1	77.5	1.5	100.0	9,522
6+	22.3	77.7	100.0	399	7.4	6.5	15.3	77.2	1.0	100.0	5,381
Residence											
Urban	19.3	80.7	100.0	8,624	60.3	5.6	13.2	80.0	1.2	100.0	14,303
Rural	23.3	76.7	100.0	10,626	25.2	6.2	15.4	76.9	1.5	100.0	42,135
Mother's education											
No education	26.2	73.8	100.0	3,944	14.0	6.4	15.9	76.2	1.6	100.0	28,237
<5 years complete	26.5	73.5	100.0	1,369	33.4	7.5	15.7	74.5	2.4	100.0	4,100
5-7 years complete	22.3	77.7	100.0	3,540	43.2	6.4	14.1	77.8	1.6	100.0	8,189
8-9 years complete	22.3	77.7	100.0	3,540	52.7	6.4	14.8	77.6	1.2	100.0	6,723
10-11 years complete	18.8	81.2	100.0	2,862	66.8	3.9	12.7	82.7	0.6	100.0	4,282
12 or more years complete	15.7	84.3	100.0	3,995	81.5	3.3	11.1	85.0	0.6	100.0	4,905
Religion											
Hindu	21.8	78.2	100.0	15,343	34.8	5.9	15.0	77.8	1.3	100.0	44,152
Muslim	20.2	79.8	100.0	2,622	27.2	6.9	14.2	77.4	1.6	100.0	9,641
Christian	16.3	83.7	100.0	579	52.2	4.6	11.8	80.4	3.2	100.0	1,109
Sikh	26.0	74.0	100.0	342	47.7	6.5	17.1	73.1	3.4	100.0	716
Buddhist/Neo-Buddhist	23.7	76.3	100.0	230	60.9	6.9	10.5	77.5	5.1	100.0	377
Jain	27.2	72.8	100.0	75	86.0	12.0	19.3	68.7	0.0	100.0	87
Other	11.3	88.7	100.0	47	15.3	4.3	15.9	77.2	2.5	100.0	306
Caste/tribe											
Scheduled caste	23.7	76.3	100.0	3,310	28.3	6.1	14.7	78.0	1.2	100.0	11,693
Scheduled tribe	22.3	77.7	100.0	1,156	21.2	6.1	17.5	72.8	3.6	100.0	5,442
Other backward class	21.3	78.7	100.0	7,373	32.5	5.9	14.8	78.5	0.8	100.0	22,716
Other	20.7	79.3	100.0	7,250	44.8	6.1	13.9	78.3	1.6	100.0	16,176
Don't know	15.3	84.7	100.0	109	49.7	4.8	23.0	70.5	1.7	100.0	220
Wealth index											
Lowest	25.4	74.6	100.0	1,638	11.4	6.6	16.9	74.6	1.9	100.0	14,377
Second	25.4	74.6	100.0	2,518	19.9	6.5	15.8	76.2	1.5	100.0	12,654
Middle	23.7	76.3	100.0	3,753	33.6	6.5	14.4	77.5	1.6	100.0	11,181
Fourth	21.8	78.2	100.0	5,206	51.3	5.5	13.2	80.1	1.2	100.0	10,154
Highest	17.4	82.6	100.0	6,134	76.0	4.2	12.2	83.0	0.7	100.0	8,072
Mother's current tobacco use											
Uses tobacco	25.7	74.3	100.0	1,119	19.4	6.6	16.4	74.7	2.3	100.0	5,756
Does not use tobacco	21.3	78.7	100.0	18,129	35.8	6.0	14.6	78.1	1.3	100.0	50,674
Total	21.5	78.5	100.0	19,250	34.1	6.0	14.8	77.7	1.4	100.0	56,438

Note: Total includes births with missing information on mother's education, religion, caste/tribe and mother's current tobacco use, which are not shown separately.
[1] Based on either a written record or the mother's recall.

Table 9.2 presents the distribution of births by weight (among those with a reported birth weight) and size at birth (among all births) and percentage whose birth weight was reported by state. The percentage of births with a reported birth weight varies considerably across states, from a low of 8 percent in Uttar Pradesh and 10-15 percent in Nagaland, Bihar, and Jammu and Kashmir, to a high of 97 percent in Kerala and 84-88 percent in Tamil Nadu, Goa, and Mizoram. Among babies with a reported birth weight, the proportion of babies with a birth weight less than 2.5 kilogrammes varies from a low of 8 percent in Mizoram to 33 percent in Haryana, followed by Delhi, Punjab, Rajasthan, Bihar, and Tripura where also more than 25 percent of babies had low birth weight. The proportion of births reported to have been smaller than average or very small ranges from a high in Tripura (35 percent) and Jammu and Kashmir (32 percent) to a low in Delhi (10 percent) and Andhra Pradesh (8 percent).

Table 9.2 Child's size at birth by state

Among live births in the five years preceding the survey with a reported birth weight, percent distribution by birth weight and percentage whose weight was reported, 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 state, India, 2005-06

State	Percent distribution of births with a reported birth weight[1]			Percentage of live births whose birth weight was reported[1]	Percent distribution of all live births by size of child at birth				
	Less than 2.5 kg	2.5 kg or more	Total		Very small	Smaller than average	Average or larger	Don't know/ missing	Total
India	21.5	78.5	100.0	34.1	6.0	14.8	77.7	1.4	100.0
North									
Delhi	26.5	73.5	100.0	51.1	6.0	3.8	89.6	0.6	100.0
Haryana	32.7	67.3	100.0	29.9	6.2	11.9	81.7	0.1	100.0
Himachal Pradesh	24.8	75.2	100.0	44.2	9.2	10.8	79.4	0.6	100.0
Jammu & Kashmir	19.4	80.6	100.0	14.8	18.3	13.2	68.3	0.2	100.0
Punjab	27.7	72.3	100.0	40.4	7.5	20.9	66.4	5.1	100.0
Rajasthan	27.5	72.5	100.0	20.9	8.5	17.4	73.9	0.2	100.0
Uttaranchal	24.6	75.4	100.0	23.7	6.9	13.6	79.1	0.4	100.0
Central									
Chhattisgarh	17.5	82.5	100.0	22.6	3.5	11.6	83.9	0.9	100.0
Madhya Pradesh	23.4	76.6	100.0	22.3	6.0	18.7	75.1	0.2	100.0
Uttar Pradesh	25.1	74.9	100.0	8.3	5.2	15.4	79.3	0.1	100.0
East									
Bihar	27.6	72.4	100.0	11.6	5.7	13.5	80.3	0.6	100.0
Jharkhand	19.1	80.9	100.0	16.9	7.1	16.1	75.8	1.0	100.0
Orissa	20.6	79.4	100.0	36.7	6.4	17.5	71.0	5.2	100.0
West Bengal	22.9	77.1	100.0	43.0	9.3	15.0	73.7	2.0	100.0
Northeast									
Arunachal Pradesh	14.1	85.9	100.0	27.8	14.8	13.1	69.4	2.8	100.0
Assam	19.4	80.6	100.0	20.0	4.4	15.1	76.7	3.8	100.0
Manipur	13.1	86.9	100.0	44.8	3.3	13.2	80.3	3.2	100.0
Meghalaya	18.0	82.0	100.0	33.5	3.7	18.4	64.1	13.7	100.0
Mizoram	7.6	92.4	100.0	84.1	1.3	12.6	81.3	4.8	100.0
Nagaland	11.0	89.0	100.0	10.0	3.0	12.6	84.1	0.3	100.0
Sikkim	10.3	89.7	100.0	54.2	2.7	11.0	86.0	0.3	100.0
Tripura	27.3	72.7	100.0	44.0	14.1	20.8	63.8	1.3	100.0
West									
Goa	22.2	77.8	100.0	84.9	4.0	15.2	76.9	4.0	100.0
Gujarat	22.0	78.0	100.0	53.2	7.3	14.5	77.1	1.1	100.0
Maharashtra	22.1	77.9	100.0	70.3	3.8	13.6	77.4	5.2	100.0
South									
Andhra Pradesh	19.4	80.6	100.0	62.7	1.7	6.1	91.1	1.2	100.0
Karnataka	18.7	81.3	100.0	62.9	7.5	15.7	75.5	1.3	100.0
Kerala	16.1	83.9	100.0	97.0	1.9	12.1	85.5	0.5	100.0
Tamil Nadu	17.2	82.8	100.0	88.4	8.1	19.5	70.5	1.8	100.0

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

9.2 VACCINATION COVERAGE

Universal immunization of children against the six vaccine-preventable diseases (namely, tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles) is crucial to reducing infant and child mortality. Differences in vaccination coverage among subgroups of the population are useful for programme planning and targeting resources to areas most in need. Additionally, information on immunization coverage is important for monitoring and evaluation of the Expanded Programmes on Immunization (EPI).

NFHS-3 collected information on vaccination coverage for all living children born in the five years preceding the survey. According to the guidelines developed by the World Health Organization, children are considered fully vaccinated when they have received a vaccination against tuberculosis (BCG), three doses of the diphtheria, whooping cough (pertussis), and tetanus (DPT) vaccine; three doses of the poliomyelitis (polio) vaccine; and one dose of the measles vaccine by the age of 12 months. BCG should be given at birth or at first clinical contact, DPT and polio require three vaccinations at approximately 4, 8, and 12 weeks of age, and measles should be given at or soon after reaching 9 months of age.

NFHS-3 asked mothers in India whether they had a vaccination card for each child born since January 2000 (in states which began fieldwork in 2005) or since January 2001 (in states which began fieldwork in 2006). If a card was available, the interviewer was required to carefully copy the day, month, and year that each vaccination was received. For vaccinations not recorded on the card, the mother's report that the vaccination was or was not given was accepted. If the mother could not show a vaccination card, she was asked whether the child had received any vaccinations. If any vaccinations had been received, the mother was asked whether the child had received a vaccination against tuberculosis (BCG); against DPT; against polio; and against measles. For DPT and polio, information was obtained on the number of doses of the vaccine given to the child. In such cases, mothers were not asked the dates of vaccinations. To distinguish Polio 0 (polio vaccine given at the time of birth) from Polio 1 (polio vaccine given about six weeks after birth), mothers were also asked whether the first polio vaccine was given just after birth or later[1].

Table 9.3 gives the percentages of all children age 12-23 months who received specific vaccinations at any time before the interview and before 12 months of age**,** according to whether a vaccination card was shown to the interviewer or the mother was the source of all vaccination information. The 12-23 month age group was chosen for analysis because both international and Government of India guidelines specify that children should be fully vaccinated by the time they complete their first year of life. Because the date of vaccination was not asked of the mother if she could not show a vaccination card, for children whose information is based on the mother's

[1] Because mothers sometimes report that the first polio dose was given just after birth even if it was given several weeks later, an adjustment was made to the estimates of the number of polio vaccinations given, based on reports of the number of DPT vaccinations. This adjustment is based on the fact that when children receive a DPT vaccination, they are almost always given a polio vaccination at the same time. Thus, if the number of polio vaccinations was reported to be less than the number of DPT vaccinations and the first polio vaccination was reported to be given just after birth, then Polio 0 is assumed to really be Polio 1, Polio 1 is assumed to be Polio 2, etc. Similar adjustments were made to the NFHS-1 and NFHS-2 vaccination estimates.

Table 9.3 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, India, 2005-06

Source of information	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Number of children
		1	2	3	0	1	2	3				
Vaccinated at any time before the survey												
Vaccination card	97.2	98.5	93.1	86.9	63.0	98.0	93.0	86.6	81.1	76.1	0.1	3,910
Mother's report	66.7	62.5	50.8	36.3	39.6	90.2	86.3	73.2	45.4	24.0	8.1	6,509
Either source	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	10,419
Vaccinated by 12 months of age[3]	75.6	72.8	63.3	51.5	48.0	89.1	84.7	73.2	48.4	36.3	8.9	10,419

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).
[3] 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.

report, the proportion of vaccinations given during the first year of life is assumed to be the same as the proportion of vaccinations given during the first year of life among children with an exact date of vaccination on the card.

Children who received BCG, measles, and three doses each of DPT and polio (excluding Polio 0) are considered to be fully vaccinated. Based on information obtained from a card or reported by the mother ('either source'), 44 percent of children age 12-23 months are fully vaccinated and 5 percent have not received any vaccinations. Coverage for BCG, DPT, and polio (except Polio 0) vaccinations is much higher than for 'all vaccinations'. BCG, the first dose of DPT, and all three doses of polio vaccine have each been received by at least 76 percent of children. Fifty-five percent of children have received three doses of DPT. Although DPT and polio vaccinations are given at the same time as part of the routine immunization programme, the coverage rates are higher for polio than for DPT (for all three doses), undoubtedly because of the Pulse Polio campaigns. Not all children who begin the DPT and polio vaccination series go on to complete them. The difference between the percentages of children receiving the first and third doses is 21 percentage points for DPT and 15 percentage points for polio. Fifty-nine percent of children age 12-23 months have been vaccinated against measles. The relatively low percentages of children vaccinated with the third dose of DPT and measles are mainly responsible for the low proportion of children fully vaccinated. As expected, vaccination coverage for each type of vaccine and for full vaccination is much higher for children for whom a vaccination card was shown than for the children whose vaccination information is all based on mother's recall because no vaccination card was shown.

According to the immunization schedule outlined by Government of India and the World Health Organization (WHO), all primary vaccinations, including measles, should be administered by the time a child is 12 months old. Table 9.3 shows that only 36 percent of children age 12-23 months were fully vaccinated by age 12 months. The percentages of children who received BCG, each dose of DPT, and each dose of polio by age 12 months are only slightly lower than the percentages who received these vaccines at any time before the survey (i.e., at any age up to their current age). The gap is wider, however, for the measles vaccination, which is supposed to be given when the child is nine months old. Fifty-nine percent of children age 12-23 months received a measles vaccine at some time before their current age, while only 48 percent

received it before 12 months of age. Eighteen percent of children who were vaccinated against measles received the vaccination after their first birthday.

Vaccination coverage (according to a vaccination card or mother's report) is presented in Table 9.4 for children age 12-23 months by selected background characteristics. The table also shows the percentage of children whose vaccination cards were shown to the interviewer.

Table 9.4 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by background characteristics, India, 2005-06

Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio[1] 0	Polio[1] 1	Polio[1] 2	Polio[1] 3	Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen	Number of children
Sex													
Male	80.2	78.4	69.2	57.4	50.4	94.1	89.5	79.3	61.4	45.3	4.3	38.8	5,546
Female	75.8	73.2	63.8	53.0	46.2	91.9	88.0	77.1	55.8	41.5	6.0	36.1	4,873
Birth order													
1	86.6	84.9	77.6	66.9	57.8	94.9	91.0	81.3	69.5	54.6	3.7	47.9	3,273
2-3	80.8	78.6	69.5	57.9	50.2	93.4	89.1	77.7	60.7	45.3	4.7	36.5	4,632
4-5	68.3	64.9	53.8	40.5	34.5	91.4	86.5	75.7	46.3	29.9	7.0	30.4	1,618
6+	51.2	49.7	35.6	26.4	29.9	88.0	82.9	74.4	32.2	18.5	8.6	17.4	895
Residence													
Urban	86.9	84.4	78.1	69.1	68.5	94.8	91.1	83.1	71.8	57.6	3.3	46.2	2,723
Rural	75.1	73.0	62.6	50.4	41.3	92.5	88.0	76.5	54.2	38.6	5.7	34.5	7,696
Mother's education													
No education	64.7	61.4	49.9	36.9	32.5	90.3	84.9	74.1	41.0	26.1	7.4	25.1	4,976
<5 years complete	80.9	80.1	69.4	57.3	49.7	90.5	85.2	75.4	58.7	46.1	7.6	46.1	694
5-7 years complete	87.1	86.1	77.3	64.6	55.1	94.6	91.4	78.8	69.2	51.8	3.7	41.6	1,591
8-9 years complete	90.9	90.2	82.7	73.0	63.1	96.3	93.3	82.4	75.1	59.7	2.3	50.5	1,297
10-11 years complete	95.3	93.4	86.9	80.0	68.5	97.0	93.0	83.5	82.6	66.1	2.0	53.2	859
12 or more years complete	97.5	96.1	93.3	86.6	79.7	99.0	97.1	89.9	89.3	75.2	0.3	56.8	1,002
Religion													
Hindu	79.6	77.5	67.9	56.4	48.6	93.9	89.9	78.7	60.0	44.4	4.4	37.4	8,092
Muslim	69.7	66.9	58.3	47.8	45.0	90.3	84.5	76.6	49.6	36.3	7.3	36.4	1,814
Christian	82.1	81.6	76.3	65.1	52.9	90.0	87.3	77.6	68.0	56.3	9.4	44.0	234
Sikh	90.4	88.6	86.2	76.9	65.5	91.0	89.1	81.1	80.2	67.3	6.6	46.0	139
Buddhist/Neo-Buddhist	98.5	94.1	75.6	58.0	81.3	95.2	87.3	74.1	96.0	50.9	0.7	39.1	59
Other	69.3	75.3	53.8	42.3	20.7	91.9	84.3	79.5	41.4	27.2	7.9	25.8	52
Caste/tribe													
Scheduled caste	75.4	74.2	64.6	51.9	46.8	92.2	88.6	76.3	56.7	39.7	5.4	34.8	2,141
Scheduled tribe	71.7	65.9	53.2	40.9	30.9	86.8	79.8	64.6	46.1	31.3	11.5	27.4	972
Other backward class	76.4	74.1	63.9	52.6	46.2	94.4	90.3	81.4	55.4	40.7	3.9	34.5	4,120
Other	84.1	82.6	75.8	65.4	57.6	94.0	89.7	79.6	68.8	53.8	4.3	46.0	3,108
Don't know	(92.7)	(92.5)	(85.0)	(84.9)	(85.0)	(97.5)	(97.4)	(92.2)	(67.8)	(60.2)	(2.5)	(80.0)	47
Wealth index													
Lowest	64.0	60.0	46.9	33.9	30.2	87.6	81.4	69.7	39.9	24.4	9.1	25.5	2,580
Second	71.4	70.3	59.3	47.1	39.1	92.7	88.2	76.7	48.2	33.2	6.1	32.3	2,324
Middle	80.1	79.0	70.5	58.4	48.6	94.0	90.6	81.1	61.6	46.9	4.3	38.9	2,029
Fourth	88.8	86.5	79.3	68.5	60.4	96.0	92.7	81.0	72.0	55.3	2.9	43.0	1,840
Highest	95.6	93.5	89.3	81.9	76.7	97.9	94.7	87.2	85.2	71.0	0.9	55.9	1,646
Total	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	37.5	10,419

Note: Total includes Jain children and children with missing information on religion and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Mothers were able to show vaccination cards for 38 percent of children age 12-23 months, slightly higher from the 35 percent in NFHS-2**.** Vaccination coverage for each type of vaccine is much higher in urban areas than in rural areas. Fifty-eight percent of children in urban areas age 12-23 months have received all of the recommended vaccinations by the time of the survey, compared with only 39 percent of children in rural areas. In addition, dropout rates for both DPT

and polio are lower in urban areas than in rural areas. Boys (45 percent) are slightly more likely than girls (42 percent) to be fully vaccinated. Boys are also somewhat more likely than girls to receive each of the individual vaccinations. Mothers showed vaccination cards for 39 percent of boys and 36 percent of girls.

The relationship between vaccination coverage and birth order is consistently negative for all vaccinations. The vast majority of first-order births occur to younger women and they are more likely than older women to utilize maternal and child health care services. As with the use of maternal health care services, a strong positive relationship exists between mother's education and children's vaccination coverage. Only 26 percent of children of mothers with no education are fully vaccinated while 75 percent of children of mothers who have completed 12 or more years of education are fully vaccinated, and the percentage vaccinated rises steadily with increasing levels of education. A smaller proportion of Muslim children (36 percent) are fully vaccinated than children of any other religion specified in the table, who range in coverage from 44 to 67 percent. A much smaller percentage of scheduled-tribe children (31 percent) are fully vaccinated than children belonging to any other caste/tribe status. As expected, household wealth index has a strong positive relationship with vaccination coverage. Only 24 percent of children from households in the lowest wealth quintile are fully vaccinated, compared with 71 percent of children from households in the highest wealth quintile. Differentials in immunization coverage of individual vaccines are similar to those for full immunization.

Table 9.5 shows vaccination coverage rates for each recommended vaccination and the percentage of mothers showing a vaccination card for children age 12-23 months in each state. There are considerable interstate differentials in the coverage rates for different vaccinations and for children receiving all vaccinations. The percentage of children who are fully vaccinated ranges from 21 percent in Nagaland to 81 percent in Tamil Nadu. Tamil Nadu, Goa, Kerala and Himachal Pradesh stand out in full immunization coverage as about three-fourths or more of children in each of these states are fully immunized. Among the more populous states, Uttar Pradesh (23 percent), Rajasthan (27 percent), Assam (31 percent), Bihar (33 percent), Jharkhand (34 percent), and Madhya Pradesh (40 percent) stand out as having a much lower percentage of children fully vaccinated than the national average of 44 percent (see Figure 9.1). As these states account for nearly one-third of the total population of the country, their low vaccination coverage pulls down the coverage rate for the country as a whole. In addition to Nagaland and Assam, some of the other northeastern states (Arunachal Pradesh and Meghalaya) also have a relatively poor record on vaccination coverage. A similar picture emerges with respect to individual vaccinations. In Tamil Nadu, Himachal Pradesh, Goa, Kerala, Sikkim, and Maharashtra, the coverage for BCG and at least the first doses of DPT and polio is generally in excess of 90 percent and in some cases, nearly universal. In Tamil Nadu and Goa, measles coverage is also above 90 percent. However, in most states, there is a considerable drop from the second to the third dose for both DPT and polio, and in almost every state fewer children have received measles vaccine than any of the other vaccinations except polio 0.

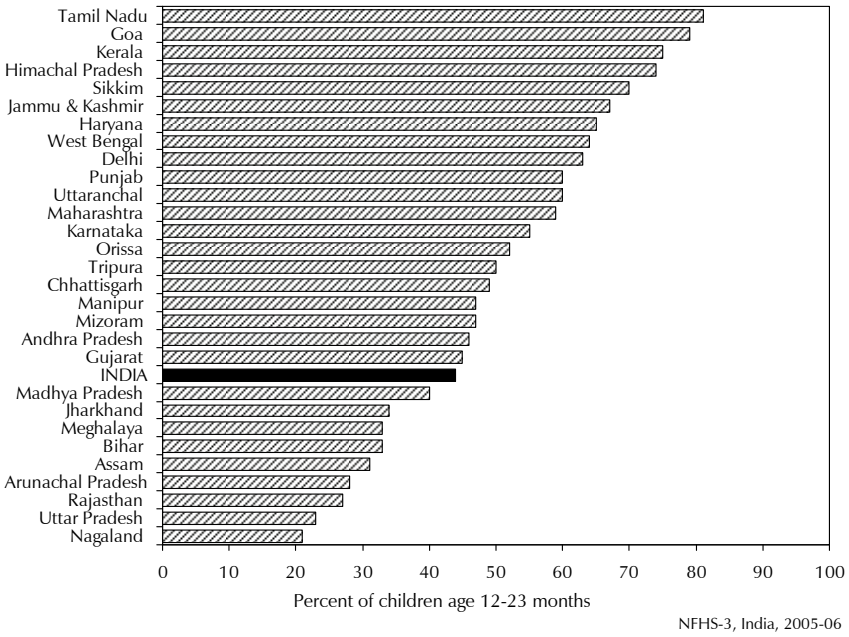
Table 9.5 Vaccinations by state

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by state, India, 2005-06

State	BCG	DPT			Polio[1]				Measles	All basic vaccinations[2]	No vaccinations	Percentage with a vaccination card seen
		1	2	3	0	1	2	3				
India	78.1	76.0	66.7	55.3	48.4	93.1	88.8	78.2	58.8	43.5	5.1	37.5
North												
Delhi	87.0	83.4	80.5	71.7	70.4	88.5	86.5	79.1	78.2	63.2	9.1	30.4
Haryana	84.9	83.8	81.0	74.2	52.7	92.2	91.3	82.8	75.5	65.3	7.8	27.0
Himachal Pradesh	97.2	96.6	91.9	85.1	67.1	96.8	94.6	88.6	86.3	74.2	1.9	57.5
Jammu & Kashmir	90.9	90.5	88.8	84.5	48.3	95.1	93.8	82.2	78.3	66.7	4.5	49.1
Punjab	88.0	85.9	80.4	70.5	65.6	90.1	86.7	75.9	78.0	60.1	6.6	38.5
Rajasthan	68.5	65.0	53.2	38.7	30.0	93.0	84.0	65.2	42.7	26.5	5.5	20.8
Uttaranchal	83.5	81.4	76.4	67.1	51.8	89.1	84.5	80.3	71.6	60.0	9.1	48.4
Central												
Chhattisgarh	84.6	87.2	77.4	62.8	37.0	96.7	93.8	85.1	62.5	48.7	2.5	33.1
Madhya Pradesh	80.5	76.0	63.7	49.8	41.3	94.0	88.4	75.6	61.4	40.3	5.0	25.4
Uttar Pradesh	61.0	55.7	43.6	30.0	34.4	94.6	92.3	87.6	37.7	23.0	2.7	20.3
East												
Bihar	64.7	65.2	55.5	46.1	30.5	90.6	87.5	82.4	40.4	32.8	7.0	34.4
Jharkhand	72.7	66.0	53.2	40.3	25.2	93.4	87.2	79.3	47.6	34.2	4.4	40.7
Orissa	83.6	83.6	77.6	67.9	38.5	85.7	80.3	65.1	66.5	51.8	11.6	54.5
West Bengal	90.1	89.7	83.2	71.5	53.4	93.2	88.6	80.7	74.7	64.3	5.9	71.9
Northeast												
Arunachal Pradesh	57.7	57.0	48.4	39.3	34.3	72.6	65.5	55.8	38.3	28.4	24.1	35.0
Assam	62.4	66.7	56.2	44.9	27.5	81.6	72.7	59.0	37.4	31.4	15.2	46.6
Manipur	80.0	77.4	72.3	61.2	23.1	93.5	90.2	77.5	52.8	46.8	6.5	51.3
Meghalaya	65.9	62.0	56.0	47.3	31.0	81.5	74.2	56.6	43.8	32.9	16.5	32.6
Mizoram	86.4	89.1	84.5	66.8	46.4	89.0	83.7	63.5	69.5	46.5	7.0	38.7
Nagaland	46.3	47.5	36.3	28.7	13.2	79.8	68.4	46.2	27.3	21.0	18.4	24.9
Sikkim	95.9	94.9	91.2	84.3	63.4	94.0	91.2	85.6	83.1	69.6	3.2	59.7
Tripura	81.1	80.2	76.0	60.2	56.0	84.7	77.8	65.3	59.9	49.7	14.7	67.7
West												
Goa	96.8	95.7	92.6	87.5	85.6	98.6	94.0	87.2	91.2	78.6	0.0	74.3
Gujarat	86.4	82.2	73.4	61.4	59.9	92.6	83.5	65.3	65.7	45.2	4.5	36.4
Maharashtra	95.3	94.3	86.8	76.1	71.7	95.9	91.7	73.4	84.7	58.8	2.8	46.1
South												
Andhra Pradesh	92.9	92.6	76.4	61.4	68.3	96.2	94.5	79.2	69.4	46.0	3.8	37.2
Karnataka	87.8	86.7	81.5	74.0	75.1	91.8	87.9	73.8	72.0	55.0	6.9	52.8
Kerala	96.3	94.0	90.8	84.0	86.7	94.5	88.6	83.1	82.1	75.3	1.8	75.3
Tamil Nadu	99.5	98.9	97.7	95.7	94.5	99.6	96.3	87.8	92.5	80.9	0.0	36.9

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

Figure 9.1 Full Immunization Coverage by State



The percentage of children with a vaccination card that was shown by their mother to the interviewer varies considerably by state, from 20 percent in Uttar Pradesh to 75 percent in Kerala. These differentials reflect both differences in the proportion of children who have a vaccination card and, among those who have cards, differences in the ability or willingness of mothers to find the card and show it to the interviewer.

9.2.1 Trends in Vaccination Coverage

Table 9.6 Trends over time in vaccinations

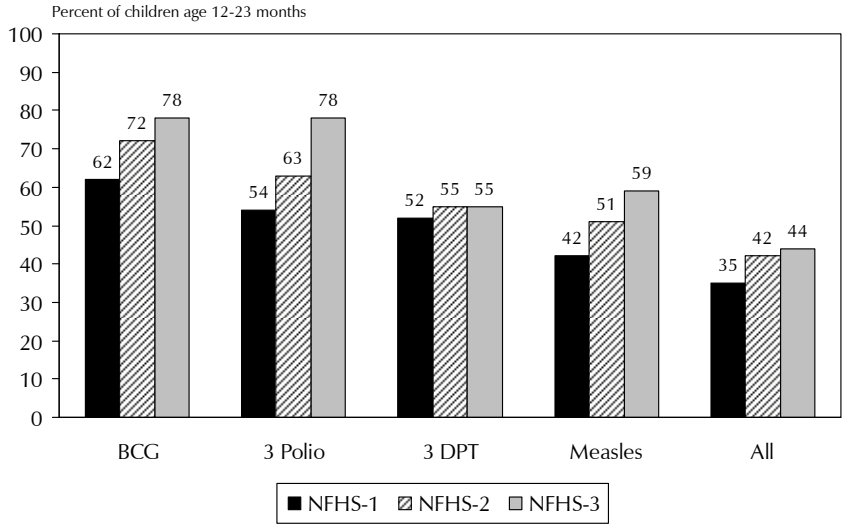
Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen by the interviewer, by residence, NFHS-3, NFHS-2, and NFHS-1

Vaccinations given any time before the survey	Urban			Rural			Total		
	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)	NFHS-3 (2005-06)	NFHS-2 (1998-99)	NFHS-1 (1992-93)
BCG	86.9	86.8	77.6	75.1	67.1	57.6	78.1	71.6	62.2
DPT									
1	84.4	86.1	80.5	73.0	67.1	62.2	76.0	71.4	66.4
2	78.1	81.9	75.2	62.6	60.1	54.5	66.7	65.0	59.2
3	69.1	73.4	68.8	50.4	49.8	46.6	55.3	55.1	51.7
Polio[1]									
0	68.5	23.3	7.8	41.3	10.1	3.6	48.4	13.1	4.6
1	94.8	92.2	80.8	92.5	81.1	62.9	93.1	83.6	67.0
2	91.1	89.4	76.9	88.0	75.0	56.6	88.8	78.2	61.2
3	83.1	78.2	70.4	76.5	58.3	48.6	78.2	62.8	53.6
Measles	71.8	69.2	57.5	54.2	45.3	37.7	58.8	50.7	42.2
All basic vaccinations[2]	57.6	60.5	50.7	38.6	36.6	30.9	43.5	42.0	35.4
No vaccinations	3.3	6.4	16.4	5.7	16.7	34.0	5.1	14.4	30.0
Percentage with a vaccination card seen	46.2	45.9	37.8	34.5	30.1	28.5	37.5	33.7	30.6
Number of children	2,723	2,282	2,715	7,696	7,795	9,138	10,419	10,076	11,853

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

As shown in Table 9.6 and Figure 9.2, there is an increase in the proportion of children fully immunized and a decline in the proportion of children who did not receive any vaccinations between NFHS-1 and NFHS-3. The coverage of BCG, three doses of polio and measles has also improved considerably since NFHS-1. Nevertheless, gains in full vaccination coverage and in the coverage of each individual vaccine were greater between NFHS-1 and NFHS-2, than between NFHS-2 and NFHS-3. The very limited progress in coverage of full immunization between NFHS-2 and NFHS-3 is mainly due to the coverage of the third dose of DPT, which has remained almost constant between NFHS-2 and NFHS-3 (55 percent). The trends in vaccination coverage between NFHS-2 and NFHS-3 in urban and rural areas show that there is greater improvement in the coverage of full immunization, as well as in most vaccines, in rural areas than in urban areas. In fact, there is a nearly two percentage point decline in full immunization coverage in urban areas between NFHS-2 and NFHS-3. Further, coverage for each of the three doses of DPT also declined in urban areas between the two surveys. The proportion of children receiving three doses of DPT declined from 73 percent in NFHS-2 to 69 percent in NFHS-3. These data indicate that India still lags far behind the goal of universal immunization coverage for children.

Figure 9.2 Trends in Vaccination Coverage



9.3 CHILD MORBIDITY AND TREATMENT

This section discusses the prevalence and treatment of acute respiratory infection, fever, and diarrhoea. Mothers of children born during the five years preceding the survey were asked if their children had suffered from cough, fever, or diarrhoea during the two weeks preceding the survey, and if so, the type of treatment given. Accuracy of all these measures is affected by the reliability of the mother's recall of when the disease episode occurred. The two-week recall period is thought to be most suitable for ensuring that there will be an adequate number of cases to analyze and that recall errors will not be too serious. It should be noted that the morbidity data collected are based on mothers' perceptions of illness without validation by medical personnel.

9.3.1 Acute Respiratory Infection

Acute respiratory infection (ARI) is one of the leading causes of childhood morbidity and mortality throughout the world. Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In NFHS-3, the prevalence of ARI was estimated by asking mothers whether their children under age five years had been ill with a cough accompanied by short, rapid breathing which was chest related in the two weeks preceding the survey. These symptoms are compatible with ARI.

Table 9.7 shows the percentage of children with symptoms of ARI during the two weeks preceding the survey and the percentage with ARI symptoms who were taken to a health facility or provider, by selected background characteristics. Six percent of children under age five years in India showed symptoms of ARI at some time in the two weeks preceding the survey. A comparison of ARI NFHS-3 prevalence data with NFHS-2 is not meaningful because the questions employed to estimate ARI have changed between the two surveys, and because prevalence of ARI is subject to seasonal variation, and the surveys took place at different times of the year.

Table 9.7 shows that there are only marginal differences in the prevalence of ARI by most of the background characteristics included in the table. ARI is somewhat less prevalent among older children, children of mothers who have completed 12 or more years of education school, children in households belonging to the highest wealth quintile, Buddhist/Neo-Buddhist children, and children in the 'other' religion category. The prevalence of ARI is highest among Muslim and Jain children and among children age 6-11 months. The small variation in the prevalence of ARI by most socioeconomic characteristics indicates that, in India, respiratory infections affect children from all strata, irrespective of their socioeconomic background.

Table 9.7 also shows the percentage of children suffering from ARI symptoms in the two weeks before the survey who were taken to a health facility or provider. Sixty-nine percent of children received some advice or treatment from a health facility or health provider when ill with ARI. The percentage is relatively low for scheduled-tribe children, children in households belonging to the lowest wealth quintile, Christian children, and children whose mothers use tobacco. A greater proportion of Sikh children with symptoms of ARI are taken to a health facility than are children of other religions. Urban children, boys, children of mothers with the highest level of education and belonging to the highest wealth quintile are taken to a health facility or provider for advice or treatment in greater proportions than are their counterparts. Thirteen percent of children with ARI symptoms receive antibiotics.

Table 9.7 Prevalence and treatment of symptoms of ARI

Among children under age five, percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and percentage with symptoms of ARI who received specific treatments, according to background characteristics, India, 2005-06

	Children under age five		Children under age five with symptoms of ARI		
Background characteristic	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	6.2	5,127	70.7	14.6	319
6-11	8.1	5,276	76.9	11.9	427
12-23	7.1	10,419	69.0	12.7	743
24-35	5.8	10,383	68.7	13.8	602
36-47	5.0	10,829	67.4	11.6	536
48-59	4.0	10,835	62.2	10.7	431
Sex					
Male	6.0	27,626	71.7	13.2	1,647
Female	5.6	25,242	65.8	11.7	1,411
Residence					
Urban	5.1	13,665	78.1	15.5	691
Rural	6.0	39,203	66.3	11.7	2,367
Mother's education					
No education	6.0	25,960	65.7	9.4	1,546
<5 years complete	7.3	3,808	70.3	10.3	277
5-7 years complete	5.6	7,765	71.1	15.8	438
8-9 years complete	6.3	6,433	70.5	12.4	407
10-11 years complete	4.8	4,128	75.0	23.2	197
12 or more years complete	4.0	4,773	79.0	22.8	192
Religion					
Hindu	5.2	41,284	68.3	13.9	2,164
Muslim	8.6	9,085	70.6	9.0	783
Christian	3.4	1,058	48.8	12.6	36
Sikh	6.7	682	94.5	9.8	46
Buddhist/Neo-Buddhist	3.1	352	(67.4)	(2.9)	11
Jain	8.6	87	*	*	7
Other	3.1	273	(49.6)	(23.1)	9
Caste/tribe					
Scheduled caste	5.3	10,817	73.5	9.8	573
Scheduled tribe	4.6	5,022	57.4	12.6	231
Other backward class	5.5	21,321	68.1	14.0	1,162
Other	7.0	15,322	70.6	12.4	1,069
Don't know	7.5	205	*	*	15
Mother's current tobacco use					
Uses tobacco	7.3	5,314	60.5	10.7	386
Does not use tobacco	5.6	47,547	70.2	12.8	2,671
Cooking fuel					
Electricity or gas[3]	4.2	9,586	79.8	18.2	398
Kerosene	4.4	1,131	82.1	20.0	50
Coal/lignite	6.9	925	(82.3)	(16.6)	64
Charcoal	5.6	201	*	*	11
Wood/straw[4]	6.0	33,193	65.6	11.8	1,982
Animal dung	7.1	7,809	70.1	9.8	552
Wealth index					
Lowest	5.9	13,200	60.7	5.9	785
Second	6.9	11,671	67.0	12.2	805
Middle	6.2	10,492	70.1	12.1	650
Fourth	5.1	9,684	76.5	20.2	495
Highest	4.1	7,821	80.2	18.5	323
Total	5.8	52,868	69.0	12.5	3,058

Note: Total includes children with missing information on mother's education, religion, caste/tribe, mother's current tobacco use, and cooking fuel and children living in households using 'other' cooking fuel, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[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 LPG, natural gas, and biogas.
[4] Includes grass, shrubs, and crop waste.

Table 9.8 shows that the percentage of children with ARI symptoms varies greatly by state, from 1 percent in Himachal Pradesh to 13 percent in West Bengal and 14 percent in Tripura. More than 80 percent of children with ARI symptoms were taken to a health facility or provider in Delhi, Kerala, Haryana, Punjab, Goa, and Tripura. The percentage of children with ARI symptoms who received antibiotics was highest in Mizoram (52 percent), followed by Uttaranchal (46 percent), and lowest in Chhattisgarh (1 percent), followed by Tamil Nadu and Gujarat (both 7 percent).

Table 9.8 Prevalence and treatment of symptoms of ARI by state

Among children under age five, percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and percentage with symptoms of ARI who received specific treatments, according to state, India, 2005-06

State	Percentage of children under five with symptoms of ARI[1]	Children under age five with symptoms of ARI	
		Percentage for whom treatment was sought from a health facility or provider[2]	Percentage who received antibiotics
India	5.8	69.0	12.5
North			
Delhi	6.4	89.3	23.4
Haryana	2.7	(88.0)	(12.0)
Himachal Pradesh	1.3	*	*
Jammu & Kashmir	7.6	71.6	9.2
Punjab	6.9	87.1	12.8
Rajasthan	6.9	64.7	16.5
Uttaranchal	4.3	74.0	46.0
Central			
Chhattisgarh	4.4	66.8	1.0
Madhya Pradesh	3.7	51.5	14.2
Uttar Pradesh	7.1	73.4	8.5
East			
Bihar	6.8	70.2	13.5
Jharkhand	5.2	67.0	12.4
Orissa	2.8	(76.5)	(13.5)
West Bengal	13.0	69.1	7.7
Northeast			
Arunachal Pradesh	6.7	43.6	36.2
Assam	7.3	34.3	8.6
Manipur	4.7	45.1	17.5
Meghalaya	1.9	*	*
Mizoram	4.1	(61.5)	(51.8)
Nagaland	4.2	27.1	31.2
Sikkim	5.0	(45.8)	(17.1)
Tripura	14.2	81.2	18.8
West			
Goa	3.6	(83.0)	(28.3)
Gujarat	4.7	63.0	7.2
Maharashtra	4.6	71.8	23.5
South			
Andhra Pradesh	2.0	(58.5)	(35.3)
Karnataka	1.7	(68.9)	(27.3)
Kerala	2.7	(88.8)	(33.2)
Tamil Nadu	3.7	75.3	6.5

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related) are considered a proxy for pneumonia.
[2] Excludes pharmacy, shop, and traditional practitioner.

9.3.2 Fever

Fever is a major manifestation of malaria and other acute infections in children. Malaria and fever contribute to high levels of malnutrition and mortality. While fever can occur year-round, malaria is more prevalent after the end of the rainy season. For this reason, temporal factors must be taken into account when interpreting fever as an indicator of malaria prevalence. Since malaria is a major contributory cause of death in infancy and childhood in many developing countries, the so-called presumptive treatment of fever with anti-malarial medication is advocated in many countries where malaria is endemic.

Table 9.9 presents the percentage of children under five with fever during the two weeks preceding the survey and the percentage receiving various treatments, by selected background characteristics. Fifteen percent of children suffered from fever during the two weeks before the survey. The prevalence of fever is high among children in the age groups 6-11 months and 12-23 months (21 and 19 percent) and among Muslim children (20 percent). The prevalence of fever does not vary widely by other demographic and socioeconomic characteristics. Overall, seventy-one percent of children who were ill with fever were taken to a health facility or provider. As is true for treatment of ARI, treatment from a health facility or provider is sought more often for urban than for rural children and for boys than for girls. The percentage of children taken for treatment rises steadily with increasing education of the mother and increasing wealth quintile, from two-thirds of children being taken for treatment to over 80 percent being taken. The percentage of children taken for treatment is relatively low for scheduled-tribe children and relatively high for Sikh and Buddhist/Neo-Buddhist children.

Table 9.9 Prevalence and treatment of fever

Among children under age five, percentage who had a fever in the two weeks preceding the survey and percentage of children with fever for whom advice or treatment was sought from a health facility or provider, who took antimalarial drugs, and who took antibiotic drugs, by background characteristics, India, 2005-06

Background characteristic	Children under age five		Children under age five with fever			
	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	Number of children
Age in months						
<6	11.6	5,127	71.0	7.5	14.6	593
6-11	21.1	5,276	76.4	7.2	14.9	1,113
12-23	19.1	10,419	71.4	9.2	13.8	1,991
24-35	16.0	10,383	70.6	8.8	12.4	1,659
36-47	12.7	10,829	68.6	7.5	12.9	1,376
48-59	10.3	10,835	66.8	8.1	9.8	1,120
Sex						
Male	15.4	27,626	72.8	9.4	13.9	4,264
Female	14.2	25,242	68.4	6.8	11.9	3,587
Residence						
Urban	14.0	13,665	79.0	10.3	15.4	1,918
Rural	15.1	39,203	68.1	7.6	12.2	5,934
Mother's education						
No education	14.6	25,960	65.8	6.9	9.5	3,779
<5 years complete	15.8	3,808	70.6	4.6	10.1	603
5-7 years complete	14.7	7,765	72.6	8.8	15.5	1,140
8-9 years complete	16.6	6,433	76.8	11.7	15.6	1,065
10-11 years complete	15.8	4,128	77.1	10.6	19.9	651
12 or more years complete	12.9	4,773	80.7	10.6	20.7	614

Continued…

Table 9.9 Prevalence and treatment of fever—*Continued*

Background characteristic	Children under age five		Children under age five with fever			
	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	Number of children
Religion						
Hindu	13.8	41,284	70.4	9.2	13.9	5,693
Muslim	20.0	9,085	71.7	4.9	10.0	1,815
Christian	13.8	1,058	67.5	8.0	14.9	146
Sikh	15.1	682	84.3	9.3	20.0	103
Buddhist/Neo-Buddhist	9.6	352	83.5	19.8	5.2	34
Jain	16.3	87	*	*	*	14
Other	14.6	273	41.2	7.2	7.3	40
Caste/tribe						
Scheduled caste	14.6	10,817	69.5	7.7	10.6	1,584
Scheduled tribe	12.2	5,022	61.3	12.1	11.4	615
Other backward class	14.6	21,321	71.1	8.3	13.9	3,109
Other	16.2	15,322	73.7	7.7	13.9	2,486
Don't know	18.9	205	(72.6)	(0.0)	(6.9)	39
Wealth index						
Lowest	14.4	13,200	63.0	6.5	9.0	1,904
Second	15.9	11,671	67.0	6.0	11.8	1,861
Middle	15.0	10,492	72.4	8.2	12.7	1,569
Fourth	14.9	9,684	75.2	11.1	14.9	1,445
Highest	13.7	7,821	82.8	11.5	19.9	1,074
Total	14.9	52,868	70.8	8.2	13.0	7,852

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Excludes pharmacy, shop, and traditional practitioner.

In NFHS-3, mothers were asked whether the child took any medicine at any time when ill with fever, and if yes, to give the name of the drug. Overall, children with fever are more likely to have taken an antibiotic drug (13 percent) than to have taken an antimalarial drug (8 percent). Older children age 48-59 months, children for whom caste/tribe was not known, Buddhist/Neo-Buddhist children, and children belonging to the 'other' religions category were less likely to receive antibiotics if they suffered from fever. Use of antibiotics for fever among children increases with increasing education of the mother and increasing wealth status of the household. Antibiotic use was highest (21 percent) among children whose mothers had completed at least 12 years of education. The percentage of children who took antimalarial drugs while suffering from fever varies similarly by sex of child, residence, mother's education, and household wealth as did the percentage of children taking antibiotics. However, antimalarial drug use during fever varies little by age of child, and is highest among Buddhist/Neo-Buddhist children and children belonging to the scheduled tribes.

Mothers were not always able to report the name of the antimalarial drug given to the child. Table 9.10 shows that among the 8 percent of children with fever who took antimalarial drugs, about half (4 percent of all children with fever) took an antimalarial of an unknown type. Chloroquine was found to be the most commonly identified drug (specifically mentioned for 2 percent of children with fever). The pattern of drug use for malaria did not differ much between rural and urban areas. However, the use of most types of antimalarials tends to be somewhat higher in urban areas than in rural areas.

Table 9.10 Availability at home of antimalarial drugs taken by children

Among children under age five who had fever in the two weeks preceding the survey, percentage who took specific antimalarial drugs and, among children who took specific drugs, percentage for whom the drug was at home when the child became ill with fever, India, 2005-06

Drug	Percentage with fever who took specific antimalarial drugs[1]	Percentage of children who took specific drugs for whom the drug was at home when the child became ill with fever	Number of children who took specific drugs
URBAN			
Chloroquine	3.4	29.0	65
Primaquine	0.7	*	13
SP/Fansidar	1.2	(12.8)	24
Combination with artemisinin	0.5	*	10
Other antimalarial	0.8	*	16
Unknown antimalarial	4.3	42.7	83
Any antimalarial drugs	10.3	31.8	197
RURAL			
Chloroquine	2.1	26.2	123
Primaquine	0.5	(45.7)	29
SP/Fansidar	0.5	(11.8)	29
Combination with artemisinin	0.5	*	27
Other antimalarial	1.1	(0.6)	67
Unknown antimalarial	3.4	15.0	202
Any antimalarial drugs	7.6	17.7	450
TOTAL			
Chloroquine	2.4	27.2	188
Primaquine	0.5	(44.3)	42
SP/Fansidar	0.7	12.2	53
Combination with artemisinin	0.5	(9.8)	37
Other antimalarial	1.1	0.8	83
Unknown antimalarial	3.6	23.0	285
Any antimalarial drugs	8.2	22.0	647

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Based on 7,852 children who had fever in the two weeks preceding the survey.

Mothers were also asked whether the antimalarials given to the child were already available in the home at the time the child became ill with fever. As shown in Table 9.10, for one out of every five children who were given an antimalarial drug, the drug had already been available in the home, although antimalarial drugs at home were more readily available to urban children than to rural children. For one out of every three urban children who were given an antimalarial drug, the specific drugs given were already available in the home, while this was true for only one out of every six rural children who were given antimalarial drugs. The urban-rural differential, however, is largely due to the availability of antimalarials of the unspecified type. The percentages of children for whom Chloroquine and SP/Fansidar were in the home were fairly similar in urban and rural areas.

9.3.3 Diarrhoea

Diarrhoea is one of the single most common causes of death among children under age five worldwide, following acute respiratory infection. Deaths from acute diarrhoea are most often caused by dehydration due to loss of water and electrolytes. Nearly all dehydration-related deaths can be prevented by prompt administration of rehydration solutions. Because deaths from

diarrhoea are a significant proportion of all child deaths, the Government of India has launched the Oral Rehydration Therapy Programme as one of its priority activities for child survival. One major goal of this programme is to increase awareness among mothers and communities about the causes and treatment of diarrhoea. Oral rehydration salt (ORS) packets are made widely available and mothers are taught how to use them. NFHS-3 asked mothers of children born during the five years preceding the survey a series of questions about episodes of diarrhoea suffered by their children in the two weeks before the survey, including questions on feeding practices during diarrhoea, the treatment of diarrhoea, and their knowledge and use of ORS.

Table 9.11 shows the percentage of children under age five with diarrhoea in the two weeks preceding the survey, by selected background characteristics. Overall, 9 percent of all children under age five had diarrhoea, with 1 percent having diarrhoea with blood. As there are seasonal variations in the prevalence of diarrhoea, percentages shown in Table 9.11 may not reflect the situation throughout the year.

Among children 0-59 months, children 6-11 months are most susceptible to diarrhoea (as is generally the case with ARI and fever as well). Differentials by other background characteristics are small, although Jain children and children in the 'other' religion category are more likely to suffer from diarrhoea than children belonging to other religions. The prevalence of diarrhoea with blood is minimal across all groups.

Table 9.11 Prevalence of diarrhoea

Percentage of children under age five who had diarrhoea in the two weeks preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Diarrhoea in the two weeks preceding the survey: Any diarrhoea	Diarrhoea with blood	Number of children
Age in months			
<6	10.6	0.2	5,127
6-11	18.1	1.0	5,276
12-23	13.8	1.3	10,419
24-35	8.3	1.2	10,383
36-47	5.0	0.5	10,829
48-59	3.9	0.6	10,835
Sex			
Male	9.5	0.8	27,626
Female	8.4	0.9	25,242
Residence			
Urban	8.9	0.6	13,665
Rural	9.0	1.0	39,203
Mother's education			
No education	8.7	1.0	25,960
<5 years complete	8.9	1.2	3,808
5-7 years complete	9.9	0.9	7,765
8-9 years complete	9.4	0.6	6,433
10-11 years complete	10.1	0.5	4,128
12 or more years complete	7.9	0.5	4,773
Religion			
Hindu	8.7	0.7	41,284
Muslim	10.0	1.4	9,085
Christian	8.2	0.3	1,058
Sikh	8.1	0.6	682
Buddhist/Neo-Buddhist	10.4	1.3	352
Jain	13.6	0.0	87
Other	16.2	1.9	273
Caste/tribe			
Scheduled caste	8.7	0.9	10,817
Scheduled tribe	8.8	1.1	5,022
Other backward class	9.5	0.7	21,321
Other	8.6	1.0	15,322
Don't know	7.2	0.0	205
Wealth index			
Lowest	8.8	1.3	13,200
Second	9.0	1.1	11,671
Middle	9.3	0.7	10,492
Fourth	9.5	0.5	9,684
Highest	8.3	0.4	7,821
Source of drinking water[1]			
Improved	9.0	0.9	45,735
Not improved	8.9	0.8	7,125
Toilet facility[2]			
Improved, not shared	8.5	0.6	12,167
Non-improved or shared	9.2	0.9	40,611
Total	9.0	0.9	52,868

Note: Total includes children with missing information on mother's education, religion, caste/tribe, source of drinking water, and toilet facility and children from households with 'other' source of drinking water, who are not shown separately.
[1] See Table 2.11 for definition of categories.
[2] See Table 2.12 for definition of categories.

9.3.4 Diarrhoea Treatment

Table 9.12 shows diarrhoea treatment and management practices by demographic and socioeconomic characteristics. Twenty-six percent of children who suffered from diarrhoea in the two weeks preceding the survey did not receive any treatment at all. Advice or treatment was sought from a health provider for 6 in 10

children who had diarrhoea. As is true for treatment of ARI and fever, urban children, boys, children of mothers with at least 12 years of education and children in households belonging to the highest two wealth quintiles are more likely than other children to be taken to a health facility or provider for advice or treatment. The percentage of children for whom treatment is sought from a health provider rises steadily with increasing education of the mother and increasing wealth quintile, from about half of children to about three-quarters of children. The percentage of children for whom treatment is sought from a provider is relatively low for children age 48-59 months, Christian children, children belonging to the 'other' religion category, and children in households belonging to the lowest wealth quintile, and relatively high for Sikh and Buddhist/Neo-Buddhist children.

Table 9.12 also shows the percentages of children with diarrhoea in the past two weeks who received various types of oral rehydration therapy (ORT) and who received other types of treatment, by background characteristics. Twenty-six percent of children age 0-59 months who suffered from diarrhoea during the two weeks preceding the survey were treated with a solution made from ORS packets. As expected, use of ORS packets is relatively high among urban children, children of more educated mothers, and children belonging to households in the higher wealth quintiles. Use of ORS packets is lower among Muslim, Hindu, and Buddhist/Neo-Buddhist children than among children belonging to other religions. However, as Figure 9.3 shows, the use of ORS to treat diarrhoea has not increased in urban or rural areas in the seven years between NFHS-2 and NFHS-3, although there had been a substantial increase, particularly in urban areas, in the period between NFHS-1 and NFHS-2.

Table 9.12 Diarrhoea treatment

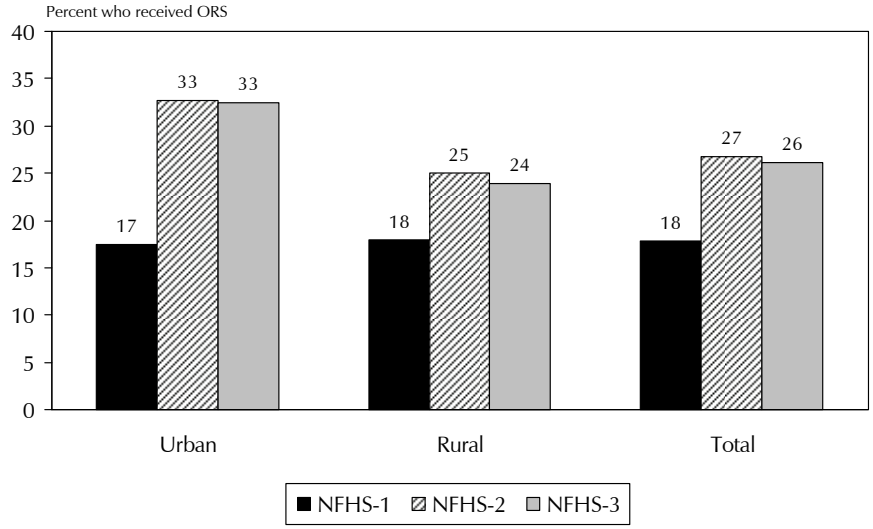
Among children under age five who had diarrhoea in the two weeks preceding the survey, percentage who received advice or treatment from a health provider, percentage who received oral rehydration therapy (ORT), and percentage who were given other treatments, by background characteristics, India, 2005-06

Background characteristic	Percentage of children with diarrhoea taken to a health provider[1]	Oral rehydration therapy (ORT)					Other treatments									
		ORS packets	Gruel	Either ORS or gruel	Increased fluids	Any ORT or increased fluids	Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Other drug	Unknown drug	Intra-venous solution	Home remedy/ herbal/ other	Missing	No treat-ment	Number of children
Age in months																
<6	57.1	13.7	3.7	15.6	2.6	17.8	12.9	1.4	0.0	5.3	29.0	1.1	7.0	0.0	38.8	542
6-11	60.3	21.3	15.9	31.8	7.9	34.8	18.2	1.9	0.5	4.5	24.1	0.2	8.2	0.0	33.3	956
12-23	66.1	34.6	23.6	48.0	11.1	52.3	16.2	1.2	0.3	3.1	34.2	0.5	7.0	0.5	20.4	1,434
24-35	57.5	25.0	22.4	39.8	10.6	44.7	14.1	1.5	0.3	3.2	30.4	0.5	7.4	0.3	25.6	862
36-47	55.2	26.4	25.0	41.5	14.3	48.5	15.5	1.9	0.8	4.8	31.8	0.5	5.7	0.7	21.1	536
48-59	51.5	25.1	28.4	44.7	16.1	52.0	12.5	0.8	0.1	3.4	32.3	0.3	10.7	0.5	20.5	424
Sex																
Male	61.6	26.2	20.6	39.1	10.6	43.7	16.8	1.3	0.3	4.1	28.7	0.4	7.5	0.4	25.6	2,630
Female	57.7	25.9	19.6	37.8	9.7	42.2	13.8	1.7	0.4	3.6	32.6	0.7	7.5	0.2	26.8	2,125
Type of diarrhoea																
Non-bloody	59.1	25.7	19.9	38.1	10.0	42.5	15.5	1.5	0.4	3.8	29.4	0.5	7.4	0.3	26.8	4,262
Bloody	66.0	30.6	23.3	44.4	12.4	48.7	15.4	1.2	0.2	2.8	39.3	0.4	8.7	0.1	20.7	456
Residence																
Urban	64.5	32.6	22.0	44.2	11.3	48.6	18.9	2.0	0.7	4.6	31.3	0.6	8.1	0.1	19.6	1,215
Rural	58.2	23.8	19.5	36.6	9.9	41.1	14.3	1.3	0.2	3.6	30.1	0.5	7.3	0.4	28.4	3,540
Mother's education																
No education	54.7	18.4	17.8	31.7	8.5	36.6	13.0	1.0	0.1	2.8	32.5	0.3	6.7	0.4	30.8	2,246
<5 years complete	60.9	19.9	14.5	28.5	13.7	35.9	11.1	3.0	0.3	3.4	35.9	0.4	10.0	0.6	27.5	339
5-7 years complete	62.5	29.3	19.9	40.9	8.9	44.2	17.2	1.9	0.5	3.3	29.5	0.5	6.0	0.0	27.8	771
8-9 years complete	63.2	30.8	24.4	45.5	10.8	50.1	14.1	1.3	0.5	7.3	31.2	0.3	8.5	0.0	19.1	604
10-11 years complete	66.5	37.0	21.2	47.8	12.5	51.3	20.8	2.6	0.6	4.6	21.6	0.9	10.6	0.0	18.1	419
12 or more years complete	71.4	50.4	32.0	62.2	16.9	64.7	26.7	0.8	1.0	5.4	23.8	2.0	8.0	1.0	14.1	376
Religion																
Hindu	59.3	26.5	19.1	38.3	9.6	42.4	15.7	1.3	0.4	3.7	30.0	0.5	6.8	0.3	27.0	3,608
Muslim	61.8	21.9	22.8	37.6	12.8	43.8	13.9	2.3	0.3	3.9	35.1	0.4	8.7	0.5	22.9	909
Christian	50.0	40.3	28.0	54.1	13.9	56.6	20.1	0.1	0.1	11.1	14.7	0.1	11.7	0.1	24.7	87
Sikh	75.2	36.1	16.1	39.7	2.9	42.0	17.2	0.0	0.0	1.5	22.3	0.0	19.6	1.5	31.0	56
Buddhist/Neo-Buddhist	70.9	27.2	20.1	28.2	13.8	35.1	14.3	6.5	0.0	11.1	17.6	0.0	18.8	0.0	21.3	37
Other	45.0	30.6	26.8	46.9	4.7	50.2	7.7	0.0	0.0	0.2	18.5	2.9	10.8	0.0	27.7	44
Caste/tribe																
Scheduled caste	60.7	24.4	14.9	32.8	10.1	37.7	13.4	1.1	0.5	3.6	33.8	0.3	6.2	0.1	29.3	942
Scheduled tribe	54.3	28.5	21.4	42.8	10.2	46.3	12.9	0.1	0.0	2.1	25.0	0.9	9.1	0.2	30.5	440
Other backward class	57.5	23.3	21.2	38.0	9.0	41.4	15.1	1.4	0.2	4.1	31.5	0.4	6.4	0.4	25.9	2,029
Other	64.9	30.6	21.9	42.1	12.3	48.3	18.6	2.3	0.6	4.3	28.5	0.7	9.4	0.5	22.3	1,313
Wealth index																
Lowest	50.5	19.0	19.5	33.3	8.4	37.4	12.3	1.7	0.0	1.8	29.6	0.3	6.5	0.3	34.7	1,166
Second	56.7	19.4	16.4	30.9	9.4	37.1	13.1	1.0	0.3	4.0	33.1	0.2	6.6	0.2	30.1	1,046
Middle	60.3	25.5	19.6	39.0	8.7	43.1	16.1	1.0	0.5	3.3	32.6	0.8	8.6	0.3	21.6	978
Fourth	65.0	31.1	19.6	41.0	12.8	45.2	17.8	2.0	0.0	5.9	28.4	0.3	8.1	0.6	23.8	915
Highest	73.6	43.0	29.0	56.2	13.4	59.2	20.6	1.6	1.1	5.4	27.4	1.2	8.2	0.4	14.5	649
Total	59.8	26.0	20.2	38.5	10.2	43.0	15.5	1.5	0.3	3.9	30.4	0.5	7.5	0.3	26.1	4,755

Note: ORT includes solution prepared from an oral rehydration salt (ORS) packet and gruel. Total includes Jain children, children with missing information on type of diarrhoea, religion, and caste/tribe, and children whose caste/tribe is not known, who are not shown separately.

[1] Excludes pharmacy, shop, and traditional practitioner.

Figure 9.3 Trends in Use of Oral Rehydration Salts (ORS) by Residence



Note: Table based on children under age three years with diarrhoea in the two weeks preceding the survey

Only 20 percent of children who suffered from diarrhoea received gruel and 39 percent received either ORS or gruel or both. Only one in ten children were given increased fluids when sick with diarrhoea. More than half (57 percent) of children received neither oral rehydration therapy nor increased fluids when sick with diarrhoea. The youngest children (age 0-11 months), children living in rural areas, children of mothers with little or no education, Buddhist/Neo-Buddhist children, and children belonging to households in the lower wealth quintiles are less likely than other children to receive ORT or increased fluids.

The use of antibiotics and other antidiarrhoeal drugs is not generally recommended for the treatment of childhood diarrhoea. Yet significant proportions of children who had diarrhoea in the two weeks before the survey were treated with drugs, including 30 percent who were treated with 'unknown' drugs and 16 percent who were treated with antibiotics. Eight percent of children were treated with home or herbal remedies. These figures indicate poor knowledge of proper treatment of diarrhoea not only among mothers but also among health-care providers. The results underscore the need for informational programmes for mothers and supplemental training for health-care providers that emphasizes the importance of ORT, increased fluid intake, and continued feeding, and discourages the use of drugs to treat childhood diarrhoea. The use of unnecessary antibiotic drugs is widespread across most socioeconomic groups, and is particularly common for children of more educated mothers and for children in households belonging to the higher wealth quintiles.

Table 9.13 shows state differentials in the percentage of children age 0-59 months with diarrhoea during the two weeks preceding the survey for whom advice or treatment was sought from a health facility or provider, the percentage who received various types of oral rehydration therapy, and the percentage who received other types of treatment. The percentage of children for whom advice or treatment was sought from a health facility or provider when sick with diarrhoea is considerably higher in Haryana, Maharashtra, Punjab, Delhi, Meghalaya, and Goa

(72-82 percent) than in other states. The northeastern and eastern states, on the other hand, have lower percentages of children for whom treatment for diarrhoea is sought from a health facility or provider.

Use of ORS packets for treatment of diarrhoea remains particularly limited in several states. Their use ranges from 13 percent of children sick with diarrhoea receiving ORS in Uttar Pradesh, 15 percent in Assam, and 17 percent in Rajasthan, Nagaland, and Jharkhand to almost two-thirds of children sick with diarrhoea receiving ORS in Meghalaya and almost half or more in Tripura, Himachal Pradesh, Goa, and Mizoram. The provision of any ORT or increased fluids to children with diarrhoea is also quite limited in Rajasthan, Uttar Pradesh, and Assam, where about three-quarters of children who had diarrhoea in the two weeks preceding the survey were given neither ORT nor increased fluids. In Kerala, on the other hand, more than 8 out of 10 children received ORT or increased fluids, and in Himachal Pradesh this proportion was only somewhat lower (75 percent).

While the use of antibiotics is not generally recommended for the treatment of childhood diarrhoea, more than 3 in 10 children who had diarrhoea in the two weeks before the survey were treated with antibiotics in Delhi and Andhra Pradesh and more than half in Mizoram. Use of other unknown drugs is particularly common in Uttar Pradesh and Madhya Pradesh, where 4 in 10 children with diarrhoea were given drugs of an unknown type.

Table 9.13 Diarrhoea treatment by state

Among children under age five who had diarrhoea in the two weeks preceding the survey, percentage who received advice or treatment from a health provider, percentage who received oral rehydration therapy (ORT), and percentage who were given other treatments, by state, India, 2005-06

State	Percentage of children with diarrhoea taken to a health provider[1]	Oral rehydration therapy (ORT)			Increased fluids	Any ORT or increased fluids	Other treatments							Missing	No treatment
		ORS packets	Gruel	Either ORS or gruel			Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Other drug	Unknown drug	Intra-venous solution	Home remedy/ herbal/ other		
India	59.8	26.0	20.2	38.5	10.2	43.0	15.5	1.5	0.3	3.9	30.4	0.5	7.5	0.3	26.1
North															
Delhi	75.0	29.9	19.1	42.1	9.4	43.4	31.3	0.0	0.0	0.0	19.1	1.3	6.2	0.0	25.9
Haryana	81.7	24.3	17.3	32.3	2.3	33.1	24.0	0.0	0.0	1.9	21.5	0.0	10.0	0.0	26.2
Himachal Pradesh	68.9	56.3	39.2	69.9	32.3	75.3	12.6	0.0	0.0	3.3	19.2	0.0	4.3	0.0	16.4
Jammu & Kashmir	67.0	40.6	13.9	44.0	14.8	46.6	15.2	0.0	0.0	0.9	33.2	0.0	5.9	0.9	28.0
Punjab	75.2	34.1	15.5	39.3	1.1	40.4	16.4	0.0	1.1	1.0	22.5	0.0	15.7	1.0	31.9
Rajasthan	56.7	16.5	6.7	21.4	5.5	25.4	11.7	2.9	0.0	8.5	32.7	1.6	7.6	1.1	28.7
Uttaranchal	61.7	33.1	29.7	49.1	16.7	53.2	14.0	0.7	0.7	4.6	23.1	0.0	13.3	0.6	16.8
Central															
Chhattisgarh	61.6	40.0	20.5	46.4	3.2	46.4	20.9	6.1	0.0	0.0	31.4	0.0	9.0	0.0	25.1
Madhya Pradesh	58.1	29.8	25.0	44.2	8.4	47.8	14.9	4.0	0.0	2.1	40.2	0.0	7.5	0.0	22.7
Uttar Pradesh	58.3	12.5	11.9	22.3	5.5	26.2	8.9	1.2	0.5	4.4	46.9	0.0	6.7	0.9	28.1
East															
Bihar	53.9	20.9	25.8	39.7	18.2	46.6	23.0	0.0	0.0	2.2	27.8	0.2	3.6	0.0	28.1
Jharkhand	44.1	17.3	17.4	31.3	9.9	38.9	10.3	2.1	0.6	1.9	25.0	1.1	6.4	0.0	37.5
Orissa	58.9	39.8	15.0	48.6	9.4	54.8	11.7	1.2	0.0	3.2	24.9	1.8	12.0	0.0	26.7
West Bengal	67.4	42.3	22.6	52.3	17.4	63.3	10.3	2.7	0.0	4.6	29.5	0.0	8.3	0.0	17.3
Northeast															
Arunachal Pradesh	35.5	31.7	12.4	39.9	12.4	47.2	14.4	0.7	0.0	3.2	4.9	0.0	13.6	0.0	38.3
Assam	31.4	14.5	13.0	24.6	1.0	25.6	10.1	1.9	0.0	1.9	17.9	1.0	15.0	1.0	40.1
Manipur	37.8	36.2	13.3	44.2	13.0	47.7	18.6	0.6	0.0	1.7	17.1	0.8	36.5	0.0	20.9
Meghalaya	72.2	65.1	13.0	72.1	16.0	72.1	24.9	0.0	0.0	10.1	32.1	0.0	21.0	0.0	7.0
Mizoram	27.4	48.3	30.3	64.8	24.2	69.4	54.5	0.0	1.1	2.2	1.1	1.1	16.9	0.0	11.1
Nagaland	17.6	16.5	34.3	44.8	16.9	52.7	20.2	0.0	0.0	4.5	9.3	0.0	15.9	1.4	25.8
Sikkim	33.4	33.2	27.5	47.7	43.9	65.3	9.6	10.8	0.0	1.0	4.0	1.2	9.8	0.0	24.2
Tripura	64.5	58.1	23.4	64.5	19.1	66.6	12.8	2.1	0.0	3.5	20.5	0.0	20.6	0.0	10.7
West															
Goa	72.1	50.6	40.6	64.8	8.1	68.2	28.4	1.7	0.0	5.6	15.6	0.0	17.2	0.0	15.1
Gujarat	56.8	26.3	21.7	38.8	8.8	42.9	8.8	0.0	0.0	1.0	30.5	0.0	7.2	0.0	31.9
Maharashtra	77.3	38.5	30.3	52.1	9.8	53.8	24.4	2.1	1.0	7.7	20.6	2.7	3.2	0.0	17.4
South															
Andhra Pradesh	65.3	36.9	7.9	43.1	9.8	47.0	32.3	0.4	1.1	8.9	12.7	0.0	7.5	0.0	25.0
Karnataka	65.6	31.9	24.2	46.5	10.1	48.7	21.6	1.7	1.1	3.4	20.0	0.0	8.3	0.6	23.0
Kerala	63.3	32.3	78.0	80.9	44.1	85.3	13.3	0.0	2.9	11.7	5.9	0.0	19.1	0.0	10.3
Tamil Nadu	63.3	32.2	32.4	54.5	9.6	58.7	8.5	0.0	0.0	1.3	31.9	0.0	7.1	0.0	20.4

Note: ORT includes solution prepared from an oral rehydration salt (ORS) packet and gruel.
[1] Excludes pharmacy, shop, and traditional practitioner.

9.4 FEEDING PRACTICES AND KNOWLEDGE OF ORS PACKETS

Mothers are encouraged to treat children suffering from diarrhoea by increasing their fluid intake and continuing to feed them normally. Such practices help to reduce the risk of dehydration and minimize the adverse consequences of diarrhoea on the child's nutritional status. To assess knowledge of proper treatment practices, mothers with a child who suffered from diarrhoea within the two weeks preceding the survey were asked about the relative amounts of fluids and foods given to the child during the diarrhoea episode. Specifically, these mothers were asked whether the amounts of food and fluids given to the child when he/she was sick with diarrhoea were more than usual, about the same as usual, somewhat less than usual, or much less than usual. Table 9.14 shows the percent distribution of children 0-59 months who had diarrhoea in the two weeks prior to the survey by feeding practices, according to background characteristics. Only one in ten children in India who had recently suffered diarrhoea were given more than the usual amount of fluids to drink. Half of children who had diarrhoea within the two weeks preceding the survey (49 percent) were given the same amount of liquids as they usually consume. Directly contrary to recommendations for treatment during episodes of diarrhoea, 27 percent of children were given less to drink, 10 percent were given much less to drink, and 4 percent were not given anything to drink, resulting in 4 in 10 children with diarrhoea having their fluids decreased while suffering from diarrhoea. Differentials in the proportions of children receiving increased fluids are very limited. Even among the most educated mothers, only 17 percent of children who had diarrhoea in the two weeks preceding the survey were given increased fluids.

While suffering from diarrhoea, children are to continue to be fed as they normally are, and this occurs for only a minority of children when they suffer from diarrhoea. Table 9.14 shows that only 37 percent of children were given the same as usual to eat when recently suffering from diarrhoea. Two percent of children were given more to eat, 31 percent were given somewhat less than the usual amount of food, 11 percent were given much less than the usual amount of food, and 4 percent were not given any food. Fifteen percent of children were never given any food, presumably because these children have not yet started eating solid food. Behaviour contrary to recommendations for proper management of diarrhoea suggests the need for public education programmes on proper feeding practices during diarrhoea.

According to UNICEF, diarrhoea can be managed at home by providing children with an increased amount of fluids, or ORT, and a continuation of usual feeding. Table 9.14 provides information about home management of diarrhoea as recommended by UNICEF. Overall, only 8 percent of children with diarrhoea received increased fluids and continued feeding. One-third of children with an episode of diarrhoea received continued feeding along with ORT or an increased amount of fluids. Home management of diarrhoea is provided to a higher percentage of children who are older, are Christian, have mothers who have completed at least 12 years of education, and live in households in the highest wealth quintile, and to a significantly lower percentage of Buddhist/Neo-Buddhist children and the youngest children.

Table 9.14 Feeding practices during diarrhoea

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, according to background characteristics, India, 2005-06

Background characteristic	Amount of liquids offered							Amount of food offered								Percentage given increased fluids and continued feeding[1,2]	Percentage given ORT or increased fluids and continued feeding[2]	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	Don't know/ missing	Total			
Age in months																		
<6	2.6	58.7	19.4	7.0	12.0	0.2	100.0	1.7	23.3	11.9	6.9	0.7	54.4	1.0	100.0	1.6	8.9	542
6-11	7.9	48.3	28.4	9.7	5.4	0.4	100.0	1.9	30.3	25.2	7.4	5.6	29.2	0.3	100.0	4.3	22.3	956
12-23	11.1	45.7	29.8	10.6	2.4	0.4	100.0	1.7	39.7	34.2	13.6	4.0	6.0	0.9	100.0	7.9	39.6	1,434
24-35	10.6	50.5	25.5	11.1	1.6	0.7	100.0	2.3	43.3	36.9	11.7	2.9	2.2	0.7	100.0	8.6	37.1	862
36-47	14.3	47.5	27.8	8.6	1.5	0.3	100.0	1.9	45.4	36.9	11.6	3.3	0.7	0.3	100.0	12.2	41.0	536
48-59	16.1	43.1	29.5	7.9	1.6	1.7	100.0	3.2	41.5	38.4	11.1	3.5	1.3	0.9	100.0	12.2	43.2	424
Sex																		
Male	10.6	48.8	27.1	9.2	3.9	0.3	100.0	2.3	37.5	30.6	10.2	3.8	15.3	0.2	100.0	7.7	33.9	2,630
Female	9.7	48.2	27.5	10.2	3.6	0.8	100.0	1.6	37.3	31.5	11.5	3.3	13.4	1.3	100.0	7.2	31.2	2,125
Type of diarrhoea																		
Non bloody	10.0	49.5	26.4	9.9	4.0	0.4	100.0	1.9	37.7	30.5	10.5	3.4	15.4	0.5	100.0	7.3	32.2	4,262
Bloody	12.4	39.5	35.6	8.6	2.4	1.5	100.0	2.5	35.2	36.0	12.7	5.9	5.7	2.1	100.0	8.8	37.2	456
Residence																		
Urban	11.3	51.6	24.8	8.7	3.2	0.4	100.0	2.5	42.5	28.7	10.6	3.0	12.1	0.5	100.0	7.7	37.8	1,215
Rural	9.9	47.5	28.1	10.0	4.0	0.6	100.0	1.8	35.7	31.8	10.9	3.8	15.3	0.7	100.0	7.4	30.9	3,540
Mother's education																		
No education	8.5	49.9	27.7	9.6	4.0	0.4	100.0	1.7	36.5	31.8	10.3	4.0	15.2	0.6	100.0	6.5	28.7	2,246
<5 years complete	13.7	45.9	29.1	7.4	2.2	1.8	100.0	0.1	35.1	33.2	11.3	3.9	14.5	2.0	100.0	11.3	27.3	339
5-7 years complete	8.9	50.3	26.4	10.7	3.3	0.5	100.0	1.6	42.0	28.3	12.2	3.0	12.4	0.5	100.0	5.9	32.4	771
8-9 years complete	10.8	51.4	25.9	7.2	4.4	0.3	100.0	2.5	38.5	30.3	9.5	4.6	14.4	0.2	100.0	7.0	38.1	604
10-11 years complete	12.5	40.8	30.7	12.2	3.4	0.5	100.0	2.4	30.8	34.5	13.8	2.6	14.6	1.4	100.0	7.6	36.7	419
12 or more years complete	16.9	43.4	23.6	11.2	4.3	0.6	100.0	5.4	41.3	27.4	9.5	1.7	14.2	0.6	100.0	13.8	48.3	376
Religion																		
Hindu	9.6	49.5	26.9	9.5	4.0	0.5	100.0	1.9	37.9	30.0	10.2	3.9	15.4	0.7	100.0	6.9	31.7	3,608
Muslim	12.8	45.2	28.7	10.0	2.7	0.6	100.0	2.0	35.8	34.9	13.1	2.9	10.5	0.8	100.0	9.8	35.2	909
Christian	13.9	49.5	17.0	13.1	6.2	0.2	100.0	3.1	44.6	28.8	7.8	3.7	12.0	0.0	100.0	12.1	47.9	87
Sikh	2.9	53.1	36.4	6.1	1.5	0.0	100.0	3.8	42.3	31.4	7.6	1.5	13.4	0.0	100.0	2.2	33.5	56
Buddhist/Neo-Buddhist	13.8	53.0	26.2	6.9	0.2	0.0	100.0	4.8	23.1	20.1	19.6	0.5	31.9	0.0	100.0	1.1	15.6	37
Other	4.7	29.1	38.5	21.0	6.5	0.3	100.0	3.5	23.9	39.9	9.1	2.5	20.9	0.2	100.0	3.5	40.6	44
Caste/tribe																		
Scheduled caste	10.1	49.6	26.9	9.6	3.7	0.1	100.0	3.2	38.2	27.8	11.4	3.8	15.2	0.3	100.0	7.6	28.5	942
Scheduled tribe	10.2	45.7	29.9	9.3	4.8	0.1	100.0	2.2	38.5	36.2	9.8	2.6	10.7	0.0	100.0	7.6	38.1	440
Other backward class	9.0	50.4	26.9	9.5	3.6	0.6	100.0	1.0	37.1	30.7	9.6	4.6	16.1	0.8	100.0	6.3	31.3	2,029
Other	12.3	45.7	27.4	10.2	3.6	0.8	100.0	2.7	36.7	32.2	12.4	2.2	12.8	0.9	100.0	9.3	36.1	1,313
Wealth index																		
Lowest	8.4	47.7	27.7	9.9	5.4	1.0	100.0	1.5	36.1	28.5	12.5	4.3	15.6	1.4	100.0	6.0	28.9	1,166
Second	9.4	50.3	27.5	8.7	3.5	0.5	100.0	1.1	37.1	33.7	9.1	4.4	14.0	0.6	100.0	6.8	29.4	1,046
Middle	8.7	51.0	26.6	10.2	3.5	0.0	100.0	2.5	38.1	29.4	10.1	2.8	17.0	0.1	100.0	6.0	30.5	978
Fourth	12.8	46.2	26.0	11.0	3.3	0.6	100.0	2.7	38.3	32.2	11.6	2.9	11.6	0.7	100.0	10.8	34.9	915
Highest	13.4	47.0	29.0	7.9	2.6	0.2	100.0	2.7	37.9	32.1	10.3	3.4	13.5	0.2	100.0	8.6	44.7	649
Total	10.2	48.6	27.3	9.7	3.8	0.5	100.0	2.0	37.4	31.0	10.8	3.6	14.5	0.7	100.0	7.5	32.7	4,755

Note: Total includes Jain children, children with missing information on type of diarrhoea, religion, and caste/tribe, and children whose caste/tribe is not known, who are not shown separately.
ORT = Oral rehydration therapy, which includes solution prepared from an oral rehydration salt packet and gruel
[1] Equivalent to the UNICEF/WHO indicator 'Home management of diarrhoea'.
[2] Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhoea episode.

A simple and effective response to dehydration caused by diarrhoea is a prompt increase in the child's fluid intake through some form of oral rehydration therapy, which may include the use of a solution prepared from packets of oral rehydration salts (ORS). To ascertain how widespread knowledge of ORS is in India, respondents were asked whether they know about ORS packets. Table 9.15 presents knowledge of ORS among all women and among mothers who gave birth in the five years preceding the survey. Seventy-three percent of all women and 74 percent of mothers with recent births know about ORS packets. Knowledge of ORS among recent mothers in NFHS-3 is not only much higher than it was in NFHS-1 (43 percent); it has increased by about 12 percentage points from its level in NFHS-2 (62 percent).

Table 9.15 Knowledge of ORS packets

Percentage of women and percentage of women who had a live birth in the five years preceding the survey who know about ORS packets for treatment of diarrhoea, by background characteristics, India, 2005-06

Background characteristic	All women		Women who gave birth in the past five years	
	Percentage who know about ORS packets	Number of women	Percentage who know about ORS packets	Number of women
Age				
15-19	71.0	24,811	64.9	2,985
20-24	76.7	22,779	75.7	13,287
25-34	75.9	38,073	76.1	19,621
35-49	69.2	38,722	67.1	3,784
Residence				
Urban	83.7	40,817	86.1	10,626
Rural	67.7	83,568	70.0	29,051
Education				
No education	58.4	50,487	62.0	18,792
<5 years complete	70.2	9,918	71.8	2,876
5-7 years complete	76.3	18,820	79.8	5,846
8-9 years complete	84.1	17,383	88.1	4,892
10-11 years complete	88.0	12,887	90.8	3,254
12 or more years complete	93.8	14,882	95.4	4,016
Religion				
Hindu	72.9	100,151	73.9	31,295
Muslim	72.2	16,936	74.7	6,486
Christian	78.7	3,053	81.3	814
Sikh	73.4	2,222	75.7	514
Buddhist/Neo-Buddhist	79.3	1,010	85.1	250
Jain	91.4	406	98.4	76
Other	54.2	484	57.9	205
Caste/tribe				
Scheduled caste	71.4	23,125	72.6	7,946
Scheduled tribe	61.4	10,119	64.0	3,746
Other backward class	70.8	48,880	73.1	15,889
Other	79.4	41,207	80.2	11,789
Don't know	66.2	649	74.1	158
Wealth index				
Lowest	56.8	21,718	59.3	9,571
Second	63.8	23,616	68.0	8,605
Middle	69.8	25,088	74.4	7,774
Fourth	80.1	26,106	84.9	7,256
Highest	89.5	27,856	92.8	6,471
Total	73.0	124,385	74.3	39,677

Note: Total includes women with missing information on education, religion, and caste/tribe, who are not shown separately.
ORS = Oral rehydration salts

Patterns of knowledge by background characteristics are the same among women regardless of whether or not they have recently had a birth. Knowledge of ORS packets is somewhat lower among mothers age 15-19 and among mothers age 35 years or older than among mothers in the middle age groups. As expected, knowledge is considerably higher among urban mothers (86 percent) than rural mothers (70 percent). The proportion of women who know of ORS packets increases with education and increasing wealth index. A smaller proportion of mothers belonging to scheduled tribes know about ORS packets than mothers belonging to other caste/tribe groups. Of all the groups shown in the table, knowledge of ORS packets is lowest among mothers belonging to the lowest wealth quintile (59 percent) and mother's belonging to `other' religions (58 percent).

The percent distribution of children under five years who had diarrhoea in the two weeks prior to the survey by feeding practices and the percentage of women who know about ORS packets are shown by state in Table 9.16. Kerala and Sikkim (each with 44 percent), followed by Himachal Pradesh (32 percent), stand out among the states as having the highest percentage of children given more to drink than usual during a diarrhoea episode. The proportion reporting that

Table 9.16 Feeding practices during diarrhoea by state

Percent distribution of children under age five who had diarrhoea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, and percentage of women who know about oral rehydration salt (ORS) packets for treatment of diarrhoea by state, India, 2005-06

State	Amount of liquids offered							Amount of food offered							Percentage of women who know about ORS packets
	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	Don't know/ missing	Total	
India	10.2	48.6	27.3	9.7	3.8	0.5	100.0	2.0	37.4	31.0	10.8	3.6	14.5	0.7	100.0	73.0
North																
Delhi	9.4	22.7	46.6	8.4	12.9	0.0	100.0	5.1	22.7	47.4	10.6	0.0	14.2	0.0	100.0	95.2
Haryana	2.3	44.9	33.9	13.1	5.8	0.0	100.0	1.7	36.3	33.5	12.2	0.0	16.2	0.0	100.0	70.3
Himachal Pradesh	32.3	41.4	13.1	10.0	3.3	0.0	100.0	13.3	28.1	28.0	6.4	3.8	20.4	0.0	100.0	87.9
Jammu & Kashmir	14.8	41.7	32.9	8.8	1.8	0.0	100.0	0.0	24.5	36.0	6.9	9.7	22.8	0.0	100.0	72.9
Punjab	1.1	56.5	29.9	8.3	3.1	1.1	100.0	1.0	42.2	29.9	10.4	2.1	13.4	1.1	100.0	71.6
Rajasthan	5.5	75.6	14.3	1.6	2.4	0.5	100.0	0.5	51.0	21.9	2.1	1.4	23.1	0.0	100.0	66.2
Uttaranchal	16.7	54.7	18.1	5.8	4.0	0.7	100.0	4.0	40.9	18.6	9.2	4.1	22.4	0.7	100.0	77.4
Central																
Chhattisgarh	3.2	64.9	20.6	6.7	4.6	0.0	100.0	2.3	50.0	25.6	10.5	0.0	11.6	0.0	100.0	66.8
Madhya Pradesh	8.4	61.3	22.3	3.7	2.8	1.6	100.0	3.2	51.6	21.7	3.5	4.4	14.4	1.2	100.0	79.6
Uttar Pradesh	5.5	62.9	24.0	5.3	2.1	0.2	100.0	1.4	38.7	25.4	8.0	5.3	20.5	0.7	100.0	76.1
East																
Bihar	18.2	31.8	31.7	18.2	0.2	0.0	100.0	1.4	25.4	45.0	14.2	3.6	9.8	0.6	100.0	57.6
Jharkhand	9.9	27.3	35.6	15.1	12.1	0.0	100.0	1.1	21.6	35.5	12.2	8.2	20.3	1.1	100.0	63.4
Orissa	9.4	50.7	27.9	5.9	5.0	1.2	100.0	1.2	48.1	37.0	7.9	1.2	3.5	1.2	100.0	83.2
West Bengal	17.4	38.0	30.0	5.6	7.2	1.8	100.0	1.8	36.3	38.4	7.4	1.8	12.5	1.8	100.0	77.0
Northeast																
Arunachal Pradesh	12.4	50.2	27.2	6.2	2.4	1.6	100.0	3.2	56.3	27.8	3.1	0.7	7.9	0.9	100.0	69.5
Assam	1.0	66.2	28.0	2.4	2.4	0.0	100.0	0.0	56.0	22.2	20.8	1.0	0.0	0.0	100.0	78.1
Manipur	13.0	56.2	25.0	4.0	1.2	0.6	100.0	2.5	46.1	31.6	8.1	3.3	7.7	0.6	100.0	84.4
Meghalaya	16.0	52.0	24.9	3.0	4.0	0.0	100.0	2.0	38.0	39.9	14.0	4.0	2.0	0.0	100.0	74.7
Mizoram	24.2	36.9	26.8	7.7	3.2	1.2	100.0	0.0	38.1	47.7	5.5	7.6	1.1	0.0	100.0	96.2
Nagaland	16.9	58.9	16.1	5.0	1.0	2.1	100.0	2.7	57.6	23.3	12.4	1.4	2.5	0.0	100.0	52.6
Sikkim	43.9	36.4	11.0	2.3	6.3	0.0	100.0	14.5	56.6	16.5	4.0	2.3	6.1	0.0	100.0	88.9
Tripura	19.1	29.1	43.3	6.4	0.0	2.1	100.0	0.0	27.7	48.2	15.6	0.0	6.4	2.1	100.0	89.1
West																
Goa	8.1	45.0	32.2	13.4	1.3	0.0	100.0	1.7	39.3	34.1	10.4	6.4	8.1	0.0	100.0	83.2
Gujarat	8.8	47.5	24.2	16.0	3.6	0.0	100.0	2.6	34.6	30.3	13.9	3.1	15.4	0.0	100.0	66.6
Maharashtra	9.8	38.7	32.6	10.1	7.9	1.0	100.0	2.7	30.7	31.1	16.1	2.8	15.6	1.0	100.0	73.5
South																
Andhra Pradesh	9.8	24.8	35.7	25.3	4.4	0.0	100.0	3.9	24.7	28.8	24.5	8.3	9.9	0.0	100.0	66.9
Karnataka	10.1	34.1	36.0	15.4	3.8	0.5	100.0	2.9	31.5	33.5	18.6	2.7	10.8	0.0	100.0	71.9
Kerala	44.1	36.8	7.3	11.8	0.0	0.0	100.0	7.3	41.2	29.4	16.2	1.5	2.9	1.5	100.0	90.3
Tamil Nadu	9.6	53.1	28.1	3.9	5.4	0.0	100.0	1.3	52.1	28.8	6.5	1.5	8.3	1.7	100.0	74.2

children with diarrhoea were given more to drink is particularly low, at less than 5 percent, in Assam, Punjab, Haryana, and Chhattisgarh. At least half of children are continued to be fed as usual, as is recommended, in only eight states (Nagaland, Sikkim, Arunachal Pradesh, Assam, Tamil Nadu, Madhya Pradesh, Rajasthan, and Chhattisgarh). The proportions of children who were given more fluids or were continued to be fed as usual when suffering from diarrhoea are universally low, suggesting that mothers in all states still need education in the proper management of diarrhoea.

Knowledge of ORS packets is nearly universal among women in Mizoram and Delhi (95-96 percent) and also exceeds 80 percent in Kerala, Tripura, Sikkim, Himachal Pradesh, Manipur, Goa, and Orissa. Knowledge of ORS packets is lowest in Bihar (58 percent) and Nagaland (53 percent). About one-third of women in Jharkhand, Rajasthan, Gujarat, Chhattisgarh, and Andhra Pradesh do not know of ORS packets.

9.5 DISPOSAL OF CHILDREN'S STOOLS

Unsafe disposal of human faeces spreads disease either by direct contact or through animal transmission. Hence, the proper disposal of children's stools is extremely important in preventing the spread of disease. Table 9.17 presents information on the disposal of stools of children under five years of age. The stools of 79 percent of children are disposed of unsafely: 8 percent are put or rinsed into a drain or ditch, 26 percent are thrown into the garbage, and 44 percent are left in the open. Only in the case of one in five children are the stools disposed of hygienically. Twelve percent of children under five use a toilet or latrine. Stools of 9 percent of children are disposed of in a toilet or latrine, and for 1 percent of children their stools are buried.

There is a very strong positive relationship between both education of the mother and her household wealth index and the safe disposal of children's stools. Stools are disposed of safely for 61 percent of children of mothers with 12 or more years of education, compared with only 9 percent of children of mothers with no education. Similarly, stools are safely disposed of for 65 percent of children living in households belonging to the highest wealth quintile, compared with only 4 percent of children living in households of the lowest wealth quintile. Stools of children who do not belong to the scheduled castes, scheduled tribes, or other backward classes are more likely to be disposed of safely than of other children. The percentage of children with safe disposal of stools increases with age, as their use of a toilet or latrine increases. Stools of children belonging to the lowest wealth quintile are most likely to be left in open.

The safe disposal of children's stools is more than four times higher in urban (47 percent) than in rural areas (11 percent). Eighty percent of children's stools in rural areas are left in the open or thrown in the garbage, compared with 41 percent in urban areas. Twenty-seven percent of urban children use latrines, compared with 6 percent of rural children. Additionally, for 20 percent children in urban areas, stools are put into latrines, compared with 5 percent in rural areas. Although this marked difference in the disposal of children's stools between urban and rural areas can be partially attributed to greater access to toilet facilities in urban areas, it is notable that even in households with improved toilet facilities, children's stools are not necessarily disposed of safely. Table 9.17 shows that while a higher proportion of stools for children who live in households with improved, not shared toilets, are disposed of safely than for

Table 9.17 Disposal of children's stools

Percent distribution of mothers with a child under age five living with her by the manner of disposing of the youngest child's last stools, according to background characteristics, India, 2005-06

Background characteristic	Manner of disposal of child's stools								Total	Percentage of children whose stools are disposed of safely	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	Other	Missing			
Child's age in months											
<6	1.4	9.3	1.2	20.2	33.7	28.3	5.1	0.8	100.0	11.9	5,081
6-11	2.5	9.6	1.0	11.3	38.0	34.9	2.1	0.5	100.0	13.1	5,241
12-23	6.0	9.0	0.9	7.0	33.5	42.8	0.4	0.4	100.0	15.9	9,825
24-35	14.1	8.1	0.7	3.8	22.8	49.2	0.4	0.8	100.0	23.0	7,657
36-47	20.8	8.3	0.4	2.8	12.8	53.5	0.3	0.9	100.0	29.6	5,917
48-59	27.8	9.0	0.2	2.4	7.0	52.9	0.1	0.7	100.0	37.0	4,775
Residence											
Urban	26.8	20.1	0.3	10.2	16.7	24.6	0.7	0.6	100.0	47.2	10,384
Rural	5.9	4.7	0.9	6.5	28.8	51.1	1.4	0.7	100.0	11.4	28,111
Education											
No education	4.9	3.1	0.8	6.9	28.9	53.9	1.1	0.5	100.0	8.7	18,123
<5 years complete	7.0	5.1	0.8	8.4	26.0	49.9	2.3	0.6	100.0	12.8	2,784
5-7 years complete	10.9	8.2	0.7	8.9	26.5	42.6	1.5	0.8	100.0	19.8	5,658
8-9 years complete	15.4	12.1	1.0	8.1	25.5	35.7	1.3	0.9	100.0	28.5	4,787
10-11 years complete	22.7	17.3	0.6	7.3	19.3	31.2	0.9	0.7	100.0	40.5	3,191
12 or more years complete	32.5	27.7	0.7	7.1	13.7	16.8	0.6	0.9	100.0	60.8	3,950
Religion											
Hindu	10.6	7.8	0.8	7.1	26.4	45.6	1.1	0.7	100.0	19.1	30,334
Muslim	13.8	11.0	0.6	9.5	24.7	38.4	1.6	0.4	100.0	25.4	6,316
Christian	18.3	17.7	1.3	8.6	13.9	38.4	1.2	0.6	100.0	37.4	793
Sikh	26.8	24.8	0.5	5.0	17.8	24.2	0.1	0.7	100.0	52.1	503
Buddhist/Neo-Buddhist	10.4	15.2	1.9	11.3	16.4	41.1	0.0	3.8	100.0	27.4	243
Jain	49.1	29.3	0.0	4.1	5.5	11.9	0.0	0.0	100.0	78.4	76
Other	4.2	3.5	3.1	6.4	12.9	66.9	2.1	0.8	100.0	10.8	194
Caste/tribe											
Scheduled caste	7.0	5.5	0.7	8.2	29.0	47.7	1.3	0.7	100.0	13.2	7,700
Scheduled tribe	4.1	4.7	1.4	6.2	21.2	60.1	1.7	0.6	100.0	10.2	3,602
Other backward class	9.2	7.4	0.8	6.8	27.3	47.0	0.7	0.8	100.0	17.4	15,412
Other	20.0	14.3	0.6	8.4	22.2	32.5	1.6	0.4	100.0	34.9	11,484
Don't know	11.1	5.8	2.3	6.6	16.3	51.1	6.0	0.9	100.0	19.2	154
Toilet facility[1]											
Improved, not shared	30.4	23.4	0.5	7.1	15.7	21.1	1.1	0.7	100.0	54.2	9,525
Non-improved or shared	5.3	4.0	0.9	7.6	28.8	51.6	1.2	0.6	100.0	10.2	28,907
Wealth index											
Lowest	1.7	1.0	0.9	5.9	30.9	57.4	1.7	0.5	100.0	3.5	9,225
Second	3.0	2.4	0.8	7.8	30.3	53.3	1.6	0.8	100.0	6.2	8,303
Middle	6.2	4.7	1.0	7.5	28.9	50.0	1.0	0.7	100.0	11.9	7,535
Fourth	17.2	14.2	0.7	9.7	21.6	35.0	0.9	0.7	100.0	32.1	7,073
Highest	36.9	27.5	0.3	6.9	12.0	15.3	0.5	0.6	100.0	64.7	6,359
Total	11.5	8.8	0.8	7.5	25.6	44.0	1.2	0.7	100.0	21.1	38,495

Note: Total includes mothers with missing information on education, religion, caste/tribe, and toilet facility, who are not shown separately.
[1] See Table 2.12 for definition of categories.

other children, even among this group stools are not disposed of safely for almost half of the children.

Table 9.18 presents the disposal of children's stools by state. The proportion of children whose stools are disposed of safely varies from 7 percent in Bihar and Orissa to 74 percent in Kerala and Sikkim. Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Assam, Uttar Pradesh, West Bengal, Andhra Pradesh, and Karnataka are other states where the percentage of children whose stools are disposed of safely is below the national average. In Orissa, Jharkhand, Madhya

Pradesh, Bihar, Rajasthan, Chhattisgarh, Andhra Pradesh, and Assam the stools of more than three-fourths of children (76-86 percent) under age five years are either left in the open or thrown into the garbage.

Table 9.18 Disposal of children's stools by state

Percent distribution of mothers with a child under age five living with her by the manner of disposing of the youngest child's last stools, according to state, India, 2005-06

State	Manner of disposal of child's stools								Total	Percentage of children whose stools are disposed of safely
	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	Other	Missing		
India	11.5	8.8	0.8	7.5	25.6	44.0	1.2	0.7	100.0	21.1
North										
Delhi	39.0	22.4	0.5	6.8	13.9	17.2	0.1	0.2	100.0	61.8
Haryana	20.0	15.8	0.0	5.8	18.9	39.3	0.0	0.2	100.0	35.8
Himachal Pradesh	20.2	11.7	0.4	9.1	10.7	43.5	2.3	2.1	100.0	32.3
Jammu & Kashmir	15.9	17.4	0.2	9.4	4.9	51.8	0.2	0.2	100.0	33.5
Punjab	26.6	25.2	0.4	3.9	17.9	25.3	0.0	0.8	100.0	52.2
Rajasthan	6.0	4.6	0.5	5.7	27.9	55.2	0.0	0.2	100.0	11.1
Uttaranchal	18.9	17.3	0.4	3.7	8.8	48.7	0.2	2.0	100.0	36.6
Central										
Chhattisgarh	4.3	5.4	0.1	8.4	29.0	48.9	3.9	0.1	100.0	9.9
Madhya Pradesh	6.6	3.4	0.4	6.0	21.0	62.6	0.0	0.0	100.0	10.4
Uttar Pradesh	10.8	5.3	0.6	9.0	39.0	34.6	0.2	0.5	100.0	16.8
East										
Bihar	4.7	1.9	0.4	8.2	32.3	50.9	0.7	1.0	100.0	6.9
Jharkhand	4.5	4.3	1.5	4.7	17.4	67.1	0.1	0.3	100.0	10.4
Orissa	4.8	0.8	1.4	1.3	32.3	53.7	5.0	0.6	100.0	7.0
West Bengal	11.2	6.2	0.6	13.7	32.1	30.1	6.1	0.0	100.0	18.0
Northeast										
Arunachal Pradesh	13.5	14.5	0.7	12.2	14.4	42.7	0.7	1.2	100.0	28.7
Assam	7.1	6.5	0.4	7.5	41.9	34.1	2.4	0.2	100.0	14.0
Manipur	7.1	32.1	0.6	32.5	16.2	10.9	0.3	0.4	100.0	39.8
Meghalaya	20.2	9.9	1.6	18.1	18.9	25.0	4.6	1.6	100.0	31.7
Mizoram	21.0	46.2	0.0	5.5	16.6	8.3	2.2	0.2	100.0	67.2
Nagaland	9.1	18.4	3.1	14.3	18.1	36.0	0.3	0.6	100.0	30.6
Sikkim	32.4	40.4	0.7	5.8	7.8	12.8	0.0	0.0	100.0	73.5
Tripura	11.2	24.1	0.3	21.8	22.0	16.5	3.7	0.4	100.0	35.5
West										
Goa	16.1	27.9	0.3	6.7	17.2	29.1	1.4	1.3	100.0	44.2
Gujarat	23.2	14.3	0.3	5.7	10.9	44.0	0.7	1.0	100.0	37.8
Maharashtra	20.2	18.2	1.3	8.5	15.5	34.8	0.3	1.2	100.0	39.7
South										
Andhra Pradesh	7.2	11.8	0.2	1.5	9.2	68.4	0.1	1.7	100.0	19.2
Karnataka	7.0	11.3	2.3	8.4	15.2	51.2	2.4	2.2	100.0	20.6
Kerala	35.7	37.4	0.6	4.2	3.1	18.2	0.4	0.5	100.0	73.7
Tamil Nadu	13.2	6.8	2.1	7.3	28.7	40.7	1.1	0.1	100.0	22.1

9.6 UTILIZATION OF ICDS

Established in 1975, India's Integrated Child Development Services (ICDS) programme is the world's largest early child development programme. The programme approaches child health holistically and comprises health, nutrition, and education components for pregnant women, lactating mothers, and children under six years of age. The programme is implemented through a network of community-level *anganwadi* centres. The range of services targeted at young children and their mothers include growth monitoring, immunization, health check-ups, and supplementary feeding, as well as nutrition and health education to improve the childcare and feeding practices that mothers adopt. Preschool education is provided to children between

three and six years of age. The coverage of ICDS has steadily increased since its inception in 1975. According to a recent report, the programme is operational in almost every block, and the country currently has more than 700,000 *anganwadi*s. Nonetheless, the report suggests that the effective coverage of ICDS remains quite limited: barely one-fourth of all children under six are covered under the supplementary nutrition component, for example (Citizen's Initiative for Rights of Children under Six, 2006).

To provide information on the coverage of the ICDS programme, NFHS-3 collected information on the existence of an *anganwadi* centre in each of the NFHS-3 sample enumeration areas and on the utilization by children under age 6 years and by their mothers (during pregnancy and when breastfeeding) of selected nutrition, health, and education services provided through *anganwadi* centres. Specifically, for each child under age six years, NFHS-3 asked the mother questions regarding the receipt, in the 12 months preceding the survey, of supplementary food, immunizations, health check-ups, and early childhood care or preschool education from an AWC, and whether the child had been weighed at an AWC and counselling provided after the child was weighed. Information was also obtained on the frequency with which each service was obtained. In addition, for each of her children age 0-71 months, the mother was asked whether she herself had received supplementary food, health check-ups, and health and nutrition education, during pregnancy and during the period of lactation.

9.6.1 Coverage of *Anganwadi* Centres

In NFHS-3, the supervisor of each interviewing team was responsible for collecting selected information on each enumeration area that the team visited. The supervisor was trained to obtain this information from community leaders or knowledgeable persons in the community and enter it into a PSU information sheet. These data were later entered into the computer. Along with other information that was collected was information on whether the enumeration area was served by an *anganwadi* centre (AWC), and if yes, the year in which the AWC was established. Table 9.19 shows, for India and in each state, the number of NFHS-3 enumeration areas covered by an *anganwadi* centre. In addition, the table provides information on the proportion of all children age 0-71 months who are in areas that are covered by an AWC and the proportion of children age 0-71 months that received any service from an AWC.

The NFHS-3 sample consists of 3,850 enumeration areas and information was collected for a total of 64,016 children age 0-71 months living in these areas. Overall, 72 percent of the sample enumeration areas are covered by an AWC and 62 percent are covered by an AWC that had, by the time of the survey, existed for at least five years. The coverage of enumeration areas by an AWC ranges from 100 percent in Tripura to only 27 percent in Meghalaya. In Tamil Nadu, Mizoram, Karnataka, and Nagaland more than 90 percent of the enumeration areas were covered by an *anganwadi* centre. In Manipur, Kerala, Jharkhand, Jammu and Kashmir, Gujarat, Goa, Assam, Andhra Pradesh, Bihar, and West Bengal the coverage of enumeration areas by *anganwadi* centres is also above the national average. In addition to Meghalaya, coverage of enumeration areas by *anganwadi* centres is also much lower in Delhi and Arunachal Pradesh (each 35 percent). The statewise pattern of coverage of enumeration areas by *anganwadi* centres that were established five or more years ago is similar to the statewise pattern of coverage of all

Table 9.19 Coverage of *anganwadi* centres by state

Percentage of enumeration areas covered by an *anganwadi* centre (AWC) that has been established for at least five years, percentage of enumeration areas covered by an AWC, percentage of living children under age six years who are in enumeration areas covered by an AWC, and percentage of living children under age six years who received any service from an AWC in the 12 months preceding the survey, according to state, India, 2005-06

State	Enumeration areas[1]			Children under age six	
	Percentage of enumeration areas covered by an AWC that has been established for at least five years	Percentage of enumeration areas covered by an AWC	Number of enumeration areas	Percentage of children under age six living in enumeration areas covered by an AWC	Percentage of children under age six who received any service from an AWC in the past year[2]
India	62.1	72.4	3,850	81.1	28.4
North					
Delhi	33.0	34.8	112	45.5	8.4
Haryana	64.8	69.2	91	73.8	21.2
Himachal Pradesh	52.8	56.6	106	62.4	34.7
Jammu & Kashmir	68.0	81.4	97	83.2	16.6
Punjab	60.6	64.6	99	64.9	10.5
Rajasthan	60.4	63.2	106	65.7	15.9
Uttaranchal	15.3	66.3	98	73.3	24.5
Central					
Chhattisgarh	63.8	68.1	94	78.6	55.2
Madhya Pradesh	64.0	64.5	186	79.8	43.8
Uttar Pradesh	45.9	62.6	353	76.2	18.6
East					
Bihar	57.8	73.5	102	87.9	8.8
Jharkhand	57.9	86.3	95	91.5	38.6
Orissa	57.4	71.3	115	80.4	60.5
West Bengal	65.9	72.2	205	88.4	38.0
Northeast					
Arunachal Pradesh	32.3	35.4	65	38.7	9.6
Assam	58.6	77.0	87	88.6	26.8
Manipur	85.3	86.7	150	88.9	28.0
Meghalaya	22.5	26.8	71	34.7	21.9
Mizoram	93.8	95.3	64	94.6	52.7
Nagaland	90.5	93.0	200	95.8	37.9
Sikkim	61.7	66.7	60	77.6	35.4
Tripura	96.4	100.0	56	100.0	26.6
West					
Goa	77.0	77.0	126	74.6	32.3
Gujarat	72.6	80.5	113	84.0	40.5
Maharashtra	41.9	57.4	289	74.7	38.0
South					
Andhra Pradesh	56.9	74.9	195	86.2	27.5
Karnataka	69.9	92.0	176	92.9	33.5
Kerala	82.4	87.2	125	90.4	28.7
Tamil Nadu	90.2	96.3	214	97.0	41.6

[1] Unweighted.
[2] AWC services include distribution of supplementary food, growth promotion, immunizations, health check-ups, health and nutrition education, and pre-school education.

anganwadi centres. Uttaranchal has the greatest proportion of new *anganwadi* centres, as 66 percent of the enumeration areas are covered by an *anganwadi* centre, while only 15 percent of them have been in existence for five or more years.

Table 9.19 shows also that the vast majority of children age 0-71 months live in areas covered by *anganwadi* centres. Specifically, in India as a whole, 81 percent of children age 0-71 months are in areas covered by an AWC, and this proportion ranges across states, from 100 percent in Tripura to 35 percent in Meghalaya. Notably, in 21 of the 29 states, three-fourths or more of children age 0-71 months are in areas covered by an *anganwadi* centre. The only states,

besides Meghalaya, where less than half of children age 0-71 months are in areas covered by an AWC are Arunachal Pradesh and Delhi.

While the coverage of children by an *anganwadi* centre is relatively high, only one out of every four children (28 percent) in the country age 0-71 months has received any service from an *anganwadi* centre in the year preceding the survey. In most states, the proportion of children who received services is less than one out of every three children. The percentage of children age 0-71 months who received any service from an AWC in the past 12 months is as low as 8-10 percent in Delhi, Bihar, and Arunachal Pradesh. Orissa, Chhattisgarh, and Mizoram are the only states where more than 50 percent of all children age 0-71 months have received any service in the previous one year from an AWC.

Note that all subsequent discussion of the utilization of ICDS services is limited to children who are in areas covered by an *anganwadi* centre.

9.6.2 Utilization of ICDS by Children in Areas Covered by an *Anganwadi* Centre

Table 9.20 shows the proportion of children in areas served by an *anganwadi* centre who received any service from an AWC in the past 12 months and who received supplementary food in the past 12 months, by background characteristics and by the number of years that an AWC has been in existence in the area where the child is. Overall, one in three children in areas served by an AWC received one or more services from an AWC and this proportion does not vary greatly by age or sex of the child. Utilization of AWC services is higher in rural than in urban areas served by an AWC. While there is no clear pattern in the utilization of services by mother's education, a smaller proportion of children with mothers who have completed at least 12 years of education received any services (22 percent), compared with children of less educated mothers (30-42 percent). Sikh and Jain children are least likely to have received any service from an AWC. Utilization of services is highest among Buddhist/Neo-Buddhist children (64 percent). Fifty percent of scheduled-tribe children received services, compared with 28 percent of children who do not belong to any scheduled caste, scheduled tribe, or other backward class. Utilization of services is more common among children living in enumeration areas where an AWC has existed for 6 or more years (35 percent) than in areas where the AWC has been established in the past five years (27 percent).

One of the important mandates of an *anganwadi* centre is to provide supplementary nutrition to young children in the form of cooked food served at the AWC on a daily basis or given in the form of take-home rations. However, as Table 9.20 shows, three-fourths of children age 0-71 months in areas covered by an *anganwadi* centre did not receive any supplementary food from the centre in the 12 months preceding the survey. Further, only a small proportion (12 percent) received supplementary food almost daily. Six percent received supplementary food at least once a week, and another 6 percent, at least once a month. Differentials in the daily utilization of the supplementary food scheme are small. The youngest children (age 0-12 months) are least likely to have received any supplementary food from an AWC in the past 12 months.

Table 9.20 Utilization of ICDS services: Any services and supplementary food

Percentage of children under age six years who are in an area covered by an *anganwadi* centre (AWC) who received any service from an AWC in the 12 months preceding the survey and percent distribution of children under age six who are in an area covered by an AWC by how often they received supplementary food from an AWC in the 12 months preceding the survey, by background characteristics, India, 2005-06

Background characteristic	Percentage of children age 0-71 months receiving any services from an AWC[1]	Among children in an area covered by an AWC, frequency of receiving supplementary food[2]							Number of children age 0-71 months living in an area covered by an AWC
		Not at all	Almost daily	At least once a week	At least once a month	Less often	Don't know/ missing	Total	
Age in months									
<12	28.3	81.4	4.8	4.8	6.3	2.3	0.4	100.0	8,456
12-23	33.0	74.9	7.4	6.3	7.9	3.3	0.3	100.0	8,489
24-35	36.1	70.6	12.1	7.0	6.5	3.5	0.2	100.0	8,367
36-47	36.0	68.7	16.4	6.4	5.2	3.2	0.1	100.0	8,765
48-59	34.0	71.1	16.1	5.7	3.9	3.0	0.2	100.0	8,833
60-71	30.2	74.5	14.0	4.9	3.8	2.6	0.2	100.0	8,977
0-35	32.5	75.6	8.1	6.0	6.9	3.1	0.3	100.0	25,312
36-71	33.4	71.5	15.5	5.6	4.3	2.9	0.2	100.0	26,574
Sex									
Male	32.2	74.2	11.2	5.9	5.5	2.9	0.3	100.0	27,037
Female	33.7	72.7	12.7	5.7	5.6	3.0	0.2	100.0	24,849
Residence									
Urban	23.4	81.5	11.0	3.4	2.7	1.3	0.1	100.0	8,472
Rural	34.8	71.9	12.1	6.3	6.1	3.3	0.3	100.0	43,414
Mother's education									
No education	31.6	75.0	10.1	6.2	5.7	2.9	0.2	100.0	26,909
<5 years complete	42.3	63.6	17.3	7.0	7.2	4.7	0.2	100.0	3,898
5-7 years complete	37.6	69.1	15.2	6.6	5.5	3.2	0.3	100.0	7,592
8-9 years complete	34.9	71.1	14.5	5.8	5.3	3.1	0.1	100.0	6,200
10-11 years complete	30.4	76.2	11.4	3.5	6.1	2.5	0.4	100.0	3,673
12 or more years complete	22.1	83.8	8.4	2.8	2.8	1.9	0.2	100.0	3,613
Religion									
Hindu	34.0	72.8	12.2	6.3	5.7	2.8	0.3	100.0	41,096
Muslim	26.7	78.7	9.9	3.9	3.7	3.7	0.1	100.0	8,466
Christian	36.8	68.0	11.5	5.2	9.1	6.1	0.2	100.0	993
Sikh	16.2	85.2	7.2	4.7	2.0	0.6	0.3	100.0	633
Buddhist/Neo-Buddhist	63.9	45.5	45.5	1.6	4.5	2.9	0.0	100.0	326
Jain	(15.2)	(93.9)	(0.0)	(0.0)	(6.1)	(0.0)	(0.0)	100.0	37
Other	52.2	50.6	7.2	2.4	34.5	4.8	0.4	100.0	287
Caste/tribe									
Scheduled caste	36.1	69.6	14.4	7.2	5.5	3.1	0.2	100.0	10,894
Scheduled tribe	49.9	56.1	15.6	9.9	13.2	4.9	0.3	100.0	4,996
Other backward class	30.3	77.6	9.9	5.4	4.7	2.1	0.3	100.0	21,803
Other	28.3	76.8	11.5	4.0	4.0	3.5	0.2	100.0	13,766
Don't know	48.8	51.8	22.3	6.0	18.4	1.1	0.5	100.0	239
Wealth index									
Lowest	36.7	70.1	10.7	7.3	7.7	4.0	0.2	100.0	14,158
Second	35.9	71.0	13.5	6.1	5.7	3.5	0.2	100.0	12,329
Middle	35.7	71.1	13.8	6.3	5.4	3.0	0.3	100.0	10,830
Fourth	30.3	75.7	12.7	4.8	4.3	2.0	0.4	100.0	9,089
Highest	15.6	88.9	6.0	2.2	2.0	0.9	0.0	100.0	5,481
Years since AWC was established									
<6 years ago	26.9	77.8	9.3	4.5	4.8	3.3	0.2	100.0	12,135
6 or more years ago	34.8	72.2	12.7	6.2	5.8	2.9	0.2	100.0	39,751
Total	32.9	73.5	11.9	5.8	5.6	3.0	0.2	100.0	51,887

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] AWC services for children include distribution of supplementary food, growth monitoring, immunizations, health check-ups, and pre-school education.
[2] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.

Immunization of children with the basic vaccinations (BCG, polio, DPT, and measles) and the provision of regular health check-ups are other important components of the ICDS programme. Table 9.21 presents information on the percentage of children under age six years

who are in areas covered by an *anganwadi* centre, who received any vaccination in the past 12 months and received health check-ups in the past 12 months from an *anganwadi* centre. Only one in five children received any vaccination through an *anganwadi* centre in the past 12 months; and this proportion is not much higher even among children younger than 23 months, an age when children should have received basic vaccinations. The highest proportions of children to have received vaccinations in the past 12 months from an *anganwadi* centre are Buddhist/Neo-Buddhist children (49 percent) and scheduled-tribe children (33 percent). The lowest utilization of ICDS immunization services is by Sikh children (4 percent), followed by children living in the wealthiest households (9 percent). A higher proportion of rural children (21 percent) got vaccinations from an AWC in the past 12 months, than did urban children (14 percent) living in areas served by an AWC.

Table 9.21 Utilization of ICDS services: Immunization and health check-ups

Percentage of children under age six years in areas covered by an *anganwadi* centre (AWC) who received any immunizations through an AWC in the 12 months preceding the survey and percent distribution of children under age six years in areas covered by an AWC by frequency of receiving health check-ups at an AWC in the 12 months preceding the survey, according to background characteristics, India, 2005-06

Background characteristic	Percentage of children age 0-71 months who received any immunizations from an AWC	Frequency of receiving health check-ups at an AWC					Number of children age 0-71 months in areas covered by an AWC
		Not at all	At least once a month	Less often	Don't know/ missing	Total	
Age in months							
<12	21.1	85.7	9.9	3.7	0.7	100.0	8,456
12-23	23.2	82.8	11.5	4.4	1.2	100.0	8,489
24-35	22.4	80.3	13.1	4.7	1.9	100.0	8,367
36-47	19.2	79.7	12.8	4.7	2.7	100.0	8,765
48-59	18.3	80.9	12.2	4.1	2.7	100.0	8,833
60-71	15.8	83.7	9.6	4.1	2.6	100.0	8,977
0-35	22.3	83.0	11.5	4.3	1.3	100.0	25,312
36-71	17.8	81.5	11.5	4.3	2.7	100.0	26,574
Sex							
Male	19.4	82.4	11.4	4.4	1.9	100.0	27,037
Female	20.5	82.0	11.7	4.2	2.1	100.0	24,849
Residence							
Urban	13.9	86.3	9.4	2.6	1.7	100.0	8,472
Rural	21.1	81.4	11.9	4.6	2.0	100.0	43,414
Mother's education							
No education	19.8	84.4	9.6	3.8	2.2	100.0	26,909
<5 years complete	23.5	75.0	16.3	5.9	2.8	100.0	3,898
5-7 years complete	22.5	77.6	14.5	5.8	2.0	100.0	7,592
8-9 years complete	19.7	79.6	14.2	4.9	1.2	100.0	6,200
10-11 years complete	19.1	82.7	11.9	3.6	1.7	100.0	3,673
12 or more years complete	13.5	87.0	8.8	2.9	1.3	100.0	3,613
Religion							
Hindu	21.4	81.3	12.2	4.4	2.0	100.0	41,096
Muslim	12.7	86.9	7.7	3.7	1.8	100.0	8,466
Christian	18.1	83.3	10.6	4.5	1.6	100.0	993
Sikh	3.8	92.4	4.5	1.3	1.8	100.0	633
Buddhist/Neo-Buddhist	49.0	52.7	34.6	6.4	6.3	100.0	326
Jain	(15.2)	(100.0)	(0.0)	(0.0)	(0.0)	100.0	37
Other	33.1	77.4	13.8	8.2	0.6	100.0	287
Caste/tribe							
Scheduled caste	21.4	80.1	13.3	4.5	2.1	100.0	10,894
Scheduled tribe	33.1	68.2	21.4	7.8	2.6	100.0	4,996
Other backward class	20.5	85.3	9.4	3.5	1.7	100.0	21,803
Other	13.3	84.2	9.6	4.1	2.0	100.0	13,766
Don't know	19.1	66.1	22.3	5.0	6.6	100.0	239
Wealth index							
Lowest	22.8	80.8	12.3	4.9	2.0	100.0	14,158
Second	21.3	81.5	11.7	4.6	2.2	100.0	12,329
Middle	22.2	79.8	13.2	4.6	2.4	100.0	10,830
Fourth	17.9	82.8	11.6	3.8	1.8	100.0	9,089
Highest	8.8	91.2	5.7	2.1	1.0	100.0	5,481

Continued…

Table 9.21 Utilization of ICDS services: Immunization and health check-ups—*Continued*

Background characteristic	Percentage of children age 0-71 months who received any immunizations from an AWC	Frequency of receiving health check-ups at an AWC					Number of children age 0-71 months in areas covered by an AWC
		Not at all	At least once a month	Less often	Don't know/ missing	Total	
Years since AWC was established							
<6 years ago	13.0	88.4	7.5	2.9	1.2	100.0	12,135
6+ years ago	22.1	80.3	12.7	4.7	2.2	100.0	39,751
Total	20.0	82.2	11.5	4.3	2.0	100.0	51,887

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.

More than 80 percent of children age 0-71 months did not receive a health check-up from an *anganwadi* centre in the past 12 months, 12 percent received health check-ups at least once a month, and 4 percent received them less often. Health check-ups at least once a month are most received by scheduled-tribe children and Buddhist/Neo-Buddhist children (21 percent and 35 percent, respectively). There is little variation in the proportions receiving health check-ups by most other background characteristics.

Provision of early childhood care or preschool education for children 3 to 5 years of age is another important component of the ICDS programme. Table 9.22 presents information on the utilization of early childhood care or preschool education services in the 12 months preceding the survey by children age 36-71 months in areas covered by an AWC. More than three-fourths of children age 3-5 years did not go to an *anganwadi* centre for early childhood care or preschool education. Only one out of seven children age 36-71 months in areas covered by an AWC went regularly for early childhood care or preschool education to an AWC and an additional one in eleven children went occasionally. The vast majority of children from all groups did not access this service at all in the 12 months preceding the survey, with the exception of Buddhists/Neo-Buddhists. Differences in the regular utilization of early childhood care and preschool education by background characteristics are small and follow the same patterns as observed in the utilization of other *anganwadi* services.

Table 9.22 Utilization of ICDS services: Early childhood care or preschool education

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percent distribution of children age 36-71 months by frequency of going for early childhood care or preschool education to the AWC in the 12 months preceding the survey, according to background characteristics, India, 2005-06

Background characteristic	Frequency of going to an AWC for early childhood care or preschool education for children age 36-71 months					Number of children age 36-71 months in areas covered by an AWC
	Regularly	Occasionally	Not at all	Don't know	Total	
Age in months						
36-47	13.5	10.0	76.0	0.5	100.0	8,765
48-59	15.1	8.9	75.4	0.6	100.0	8,833
60-71	13.5	7.4	78.6	0.5	100.0	8,977
36-71	14.0	8.8	76.7	0.6	100.0	26,574
Sex						
Male	12.8	8.8	77.8	0.5	100.0	13,852
Female	15.3	8.7	75.4	0.6	100.0	12,722
Residence						
Urban	12.0	5.7	81.9	0.4	100.0	4,420
Rural	14.4	9.4	75.6	0.6	100.0	22,154
Mother's education						
No education	11.9	8.7	78.8	0.6	100.0	14,468
<5 years complete	21.8	12.4	64.9	1.0	100.0	2,070
5-7 years complete	17.6	10.3	71.5	0.6	100.0	3,685
8-9 years complete	17.3	7.9	74.3	0.5	100.0	2,959
10-11 years complete	13.9	6.1	79.8	0.1	100.0	1,758
12 or more years complete	9.5	4.9	85.3	0.3	100.0	1,633
Religion						
Hindu	14.8	8.9	75.8	0.5	100.0	21,095
Muslim	10.3	7.7	81.4	0.6	100.0	4,316
Christian	14.0	7.3	78.2	0.5	100.0	487
Sikh	6.0	6.4	86.6	1.0	100.0	324
Buddhist/Neo-Buddhist	41.8	19.3	38.9	0.0	100.0	158
Other	5.6	17.4	76.9	0.1	100.0	153
Caste/tribe						
Scheduled caste	15.8	9.7	74.0	0.5	100.0	5,578
Scheduled tribe	16.0	14.4	68.8	0.8	100.0	2,551
Other backward class	12.9	7.5	79.1	0.5	100.0	11,246
Other	13.4	8.1	77.9	0.5	100.0	6,965
Don't know	28.4	7.1	64.5	0.0	100.0	132
Wealth index						
Lowest	12.4	10.5	76.4	0.7	100.0	7,334
Second	16.2	9.1	74.3	0.4	100.0	6,357
Middle	16.8	9.6	73.0	0.6	100.0	5,559
Fourth	14.6	7.3	77.5	0.5	100.0	4,535
Highest	6.9	4.2	88.4	0.5	100.0	2,791
Years since AWC was established						
<6 years ago	13.0	6.1	80.3	0.5	100.0	6,188
6+ years ago	14.3	9.5	75.5	0.6	100.0	20,386
Total	14.0	8.8	76.7	0.6	100.0	26,574

Note: Total includes Jain children and children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
* Percentage not shown; based on fewer than 25 unweighted cases.

Growth monitoring of children is another basic component of the nutritional services provided through an *anganwadi* centre. It is recommended that children age 0-35 months be weighed monthly and older children be weighed quarterly. Table 9.23 presents information about the growth monitoring of children age 0-59 months who are in areas served by an *anganwadi* centre. The vast majority of children age 0-59 months (80 percent) in areas covered by an AWC were not weighed at all in an *anganwadi* centre in the 12 months preceding the survey; and this proportion varies little by most background characteristics. As in the case of most other AWC services, the only exceptions are Buddhist/Neo-Buddhist children, 56 percent of whom have been weighed in the past 12 months in an AWC and scheduled-tribe children, one-third of whom

have been weighed in an AWC. More than 20 percent of scheduled-tribe children were weighed at least once a month, compared with less than 10 percent of children of other backward classes and of the 'other' caste/tribe category. Overall, 62 percent of children who were weighed in the past 12 months and for whom information on frequency is known had their weight taken at least once a month. Notably, among children who were weighed in the past 12 months, the proportion weighed monthly did not vary by age.

Table 9.23 Utilization of ICDS services: Growth promotion

Percent distribution of children 0-59 months in areas covered by an *anganwadi* centre (AWC) by frequency of weighing in the 12 months preceding the survey, and for children who were ever weighed, percentage whose mothers received counselling from an AWC after the child was weighed, according to background characteristics, India, 2005-06

Background characteristic	Frequency of weighing						Number of children 0-59 months	Children age 0-59 months who were weighed at an AWC	
	Not at all	At least once a month	At least once in three months	Less often	Don't know	Total		Percentage whose mothers received counselling from an AWC after child was weighed	Number of children
Age in months									
<12	85.5	9.2	2.5	2.3	0.5	100.0	8,456	53.0	1,185
12-23	81.0	10.5	4.3	2.9	1.2	100.0	8,489	52.1	1,512
24-35	78.0	12.4	4.4	3.6	1.6	100.0	8,367	50.2	1,709
36-47	77.3	12.2	4.5	3.3	2.8	100.0	8,765	45.9	1,747
48-59	78.7	11.5	4.1	3.1	2.6	100.0	8,833	45.1	1,651
0-35	81.5	10.7	3.8	2.9	1.1	100.0	25,312	51.6	4,407
36-59	78.0	11.9	4.3	3.2	2.7	100.0	17,597	45.5	3,398
Sex									
Male	80.4	11.0	3.8	3.1	1.6	100.0	22,331	49.2	4,009
Female	79.7	11.3	4.2	3.0	1.8	100.0	20,579	48.6	3,796
Residence									
Urban	84.4	9.8	2.9	1.5	1.3	100.0	7,020	51.8	1,002
Rural	79.2	11.4	4.2	3.3	1.8	100.0	35,890	48.5	6,803
Mother's education									
No education	82.9	9.1	3.4	2.8	1.9	100.0	21,805	45.4	3,320
<5 years complete	71.5	15.8	5.2	4.8	2.6	100.0	3,256	47.8	843
5-7 years complete	74.3	15.0	5.7	3.4	1.6	100.0	6,367	50.1	1,535
8-9 years complete	76.9	13.9	4.3	3.4	1.5	100.0	5,244	54.7	1,133
10-11 years complete	80.0	11.9	4.3	2.6	1.2	100.0	3,123	52.2	588
12 or more years complete	86.5	7.9	2.8	1.7	1.0	100.0	3,113	55.4	386
Religion									
Hindu	79.2	11.7	4.3	3.1	1.7	100.0	33,872	48.9	6,463
Muslim	85.2	8.1	2.6	2.6	1.5	100.0	7,130	51.2	944
Christian	80.0	11.1	4.2	3.0	1.7	100.0	819	49.2	149
Sikh	92.1	3.4	1.8	0.7	2.0	100.0	523	(16.4)	31
Buddhist/Neo-Buddhist	43.9	31.6	12.1	7.8	4.5	100.0	260	47.2	134
Jain	(92.5)	(7.5)	(0.0)	(0.0)	(0.0)	100.0	31	*	2
Other	68.4	17.4	4.6	9.1	0.5	100.0	234	39.9	73
Caste/tribe									
Scheduled caste	78.1	12.8	4.6	2.9	1.7	100.0	8,977	49.0	1,819
Scheduled tribe	64.2	21.4	6.5	6.0	1.9	100.0	4,146	48.0	1,407
Other backward class	83.3	9.1	3.4	2.5	1.7	100.0	17,903	52.8	2,693
Other	82.7	9.4	3.4	2.8	1.7	100.0	11,535	44.0	1,799
Don't know	61.2	16.9	11.1	5.2	5.6	100.0	200	55.7	66
Wealth index									
Lowest	78.3	11.9	4.5	3.7	1.6	100.0	11,653	46.7	2,348
Second	79.0	11.2	4.4	3.3	2.0	100.0	10,102	48.8	1,917
Middle	77.8	12.8	4.0	3.1	2.3	100.0	9,021	53.4	1,791
Fourth	80.7	11.6	3.8	2.6	1.4	100.0	7,558	48.9	1,356
Highest	90.6	5.3	2.0	1.3	0.8	100.0	4,575	42.7	394
Years since AWC was established									
< 6 years ago	87.4	7.1	2.2	2.1	1.1	100.0	10,012	46.0	1,152
6+ years ago	77.9	12.4	4.5	3.3	1.9	100.0	32,898	49.4	6,653
Total	80.1	11.2	4.0	3.0	1.7	100.0	42,910	48.9	7,805

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.

Table 9.23 also presents, for children who were weighed in an AWC, the percentage whose mothers received counselling. Mothers of half of the children who were weighed at an *anganwadi* centre in the 12 months preceding the survey were counselled. In general, mothers of children age less than 3 years were somewhat more likely to receive counselling than mothers of children above age three years (52 and 46 percent, respectively). The percentage of children whose mothers were counselled generally increases with increasing education of mothers. Differences across religious groups are small. Mothers of children belonging to the other backward classes are somewhat more likely to receive counselling than mothers belonging to other caste groups. Mothers in the highest wealth quintile are least likely to receive counseling after the child was weighed.

Information on utilization by state of different ICDS services during the 12 months preceding the survey by children under six years in areas covered by an *anganwadi* centre is shown in Table 9.24. Nationally, one-third of children under six years of age in areas served by an *anganwadi* centre received at least one ICDS service in the 12 months preceding the survey.

Table 9.24 Indicators of utilization of ICDS services by state

Percentage of living children under age six years in areas covered by an *anganwadi* centre (AWC) who received any service from an AWC in the 12 months preceding the survey, percentage who received specific services from an AWC in the 12 months preceding the survey, and among children who were weighed at an AWC in the 12 months preceding the survey, the percentage whose mothers received counselling from an AWC after the child was weighted by state, India, 2005-06

State	Percentage of children age 0-71 months who received any services	Percentage of children under age six years who:					Percentage whose mothers received counselling from an AWC after child was weighed
		Received food supplements[1]	Received immunizations	Received health check-ups	Went for early childhood care/pre-school[2]	Were weighed[3]	
India	32.9	26.3	20.0	15.8	22.8	18.2	48.9
North							
Delhi	12.4	11.5	4.9	3.4	7.7	3.7	*
Haryana	27.6	22.3	17.2	14.8	18.1	9.3	44.1
Himachal Pradesh	37.5	37.0	6.9	14.7	24.9	24.1	45.0
Jammu & Kashmir	18.8	17.1	8.4	4.8	10.2	3.4	(46.3)
Punjab	14.1	13.0	2.7	5.2	9.8	5.1	(16.7)
Rajasthan	21.1	17.3	12.9	9.6	10.3	9.6	37.2
Uttaranchal	31.6	27.9	14.3	10.0	20.4	12.5	47.1
Central							
Chhattisgarh	65.2	58.4	46.0	32.2	37.1	45.1	48.1
Madhya Pradesh	49.8	36.4	37.8	31.5	28.9	39.1	61.8
Uttar Pradesh	22.3	14.7	13.5	2.7	12.8	2.8	38.1
East							
Bihar	9.9	4.2	7.7	0.8	4.8	0.7	*
Jharkhand	41.7	36.5	26.5	11.9	17.0	14.4	45.9
Orissa	65.8	52.5	41.6	43.1	27.7	56.1	29.6
West Bengal	42.3	40.2	11.6	24.8	39.2	31.6	48.7
Northeast							
Arunachal Pradesh	15.8	14.7	6.5	2.4	18.6	1.7	*
Assam	29.8	28.0	6.5	4.9	14.7	5.0	36.0
Manipur	30.1	21.4	12.2	1.1	10.7	0.6	*
Meghalaya	48.1	48.1	10.3	25.9	25.7	22.5	78.0
Mizoram	55.8	54.7	21.6	14.3	45.7	35.8	20.0
Nagaland	39.3	38.8	3.0	1.4	3.8	0.9	*
Sikkim	41.6	40.8	22.7	17.6	11.1	26.7	56.7
Tripura	26.6	19.6	15.3	10.4	22.5	7.7	(43.8)
West							
Goa	35.4	31.3	19.3	15.3	15.5	26.4	68.5
Gujarat	43.9	31.7	33.9	26.5	37.0	25.3	45.1
Maharashtra	49.5	42.4	33.4	36.2	49.9	37.4	40.2

Continued…

Table 9.24 Indicators of utilization of ICDS services by state—*Continued*

State	Percentage of children age 0-71 months who received any services	Percentage of children under age six years who:					Percentage whose mothers received counselling from an AWC after child was weighed
		Received food supplements[1]	Received immunizations	Received health check-ups	Went for early childhood care/pre-school[2]	Were weighed[3]	
South							
Andhra Pradesh	30.5	28.0	14.9	15.5	22.0	17.8	56.5
Karnataka	35.5	28.0	26.2	17.1	32.9	17.8	52.5
Kerala	30.8	24.7	9.0	17.6	30.7	19.2	56.1
Tamil Nadu	42.5	32.2	33.7	25.5	26.5	31.6	75.7

( ) Based on 25-49 unweighted cases.
* Percentage not shown; based on fewer than 25 unweighted cases.
[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Children age 36-71 months.
[3] Children age 0-59 months.

This percentage ranges from 10 percent in Bihar to 65-66 percent in Chhattisgarh and Orissa. In addition to Bihar, less than one-fourth of children received any service from an *anganwadi* centre in Delhi, Punjab, Arunachal Pradesh, Jammu and Kashmir, Rajasthan, and Uttar Pradesh. Utilization of an *anganwadi* centre for ICDS is above the national average of 33 percent in 15 states of India.

Nationally, one-fourth of children age 0-71 months (26 percent) in areas covered by an *anganwadi* centre received supplementary food from an AWC in the 12 months preceding the survey. The proportion of children receiving supplementary food from an *anganwadi* centre ranges from 4 percent in Bihar to 58 percent in Chhattisgarh. Orissa and Mizoram are the other two states where more than 50 percent of children received supplementary food. Less than one-fifth of children in Delhi, Punjab, Uttar Pradesh, Arunachal Pradesh, Jammu and Kashmir, Rajasthan, and Tripura received supplementary food from an *anganwadi* centre.

Overall, 20 percent of children age 0-71 months in areas covered by an *anganwadi* centre received an immunization from an AWC in the 12 months preceding the survey. This proportion ranges from a low of less than 5 percent in Delhi, Nagaland, and Punjab, to a high of 42 percent in Orissa and 46 percent in Chhattisgarh. In addition, at least one in four children received immunizations from an *anganwadi* centre in Madhya Pradesh, Gujarat, Tamil Nadu, Maharashtra, Jharkhand, and Karnataka.

Only one in six children age 0-71 months in areas served by an *anganwadi* centre has gone to an AWC for a health check-up in the 12 months preceding the survey. Differentials in the percentage of children receiving health check-ups from an *anganwadi* centre are significant across states and vary from 12 percent or less in Bihar, Manipur, and Nagaland, to 43 percent in Orissa. In addition to Orissa, at least one-quarter of children received health check-ups from an *anganwadi* centre in West Bengal, Tamil Nadu, Meghalaya, Gujarat, Madhya Pradesh, Chhattisgarh, and Maharashtra.

In India, nearly one-fourth of children age 36-71 months in areas served by an *anganwadi* centre went for early childhood care or preschool education to an AWC. The percentage of children going to an *anganwadi* centre varies from 4-5 percent in Nagaland and Bihar to 50

percent in Maharashtra. Including Maharashtra, there are 12 states where 25 percent or more of children in areas served by an AWC have gone to an *anganwadi* for early childhood care or preschool education in the past 12 months.

Eighteen percent of children age 0-59 months in areas served by an *anganwadi* centre have had their weight measured in an AWC. Orissa is the only state where more than half of the children under age five were weighed in an *anganwadi* centre. There are 11 states where not even 10 percent of children in areas covered by an *anganwadi* centre were weighed in an AWC. With the exception of Bihar and Uttar Pradesh, all these states belong to the North and Northeastern regions. With 24 percent of children under age 5 being weighed, Himachal Pradesh is an exception in the northern region. Similarly, Meghalaya, Mizoram and Sikkim are exceptions in the northeastern region, as at least 23 percent children under age five are weighed in each of these three states.

Mothers of half of the children age 0-59 months who were weighed received counselling services from an *anganwadi* centre after their child was weighed. The percentage of mothers who received counselling from an *anganwadi* centre after their children were weighed differs greatly across states, ranging from 17 percent in Punjab and 20 percent in Mizoram to 76 percent in Tamil Nadu and 78 percent in Meghalaya.

9.6.3 Utilization of ICDS by Pregnant and Lactating Mothers

Pregnant and lactating mothers are expected to receive supplementary food from an *anganwadi* centre. *Anganwadi* centres are also supposed to monitor the health status of mothers during pregnancy and breastfeeding and provide them with health and nutritional education. Tables 9.25 and 9.26 present the utilization of ICDS services by mothers during pregnancy and lactation for each of their births in the six years preceding the survey, by background characteristics of women and by state, respectively.

Table 9.25 shows that for a vast majority of their births, women in India who are in areas covered by *anganwadi* centre, did not receive any service from an AWC during pregnancy (78 percent) or during the lactation period (83 percent). This is true for women in every group except for those belonging to religions categorized as 'other' religions, Buddhist/Neo-Buddhist women, and scheduled-tribe women. Jain and Sikh women and women in the highest wealth quintile received services from an *anganwadi* centre during pregnancy or the lactation period for less than 10 percent of their births in the past six years. Notably, women with little education were somewhat more likely to have received services than women with no education or with higher levels of education.

Pregnant and lactating mothers in areas served by an *anganwadi* centre received supplementary food for a higher percentage of their births than health check-ups or health and nutrition education. While supplementary food was received from an *anganwadi* centre by pregnant women for 21 percent of births and by lactating mothers for 17 percent of births, for only 11-12 percent of births did pregnant women and for 8-9 percent of births did lactating mothers receive health check-ups and nutrition education from an *anganwadi* centre. The

Table 9.25 Utilization of ICDS services during pregnancy and while breastfeeding

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percentage whose mothers received specific services from an AWC during pregnancy and while breastfeeding, according to background characteristics, India, 2005-06

Background characteristic	Mother received from an AWC during pregnancy					Mother received from an AWC while breastfeeding[2]				
	No services	Supplementary food[1]	Health check-ups	Health and nutrition education	Number of children	No services	Supplementary food[1]	Health check-ups	Health and nutrition education	Number of children breastfed
Residence										
Urban	83.2	15.6	8.5	9.3	8,472	87.1	12.3	6.0	6.7	8,457
Rural	76.4	21.4	13.0	11.3	43,414	81.7	17.3	9.0	8.6	43,380
Mother's education										
No education	79.3	18.6	10.7	8.5	26,909	83.9	15.2	7.1	6.5	26,888
<5 years complete	71.5	25.6	15.9	15.3	3,898	77.3	21.5	10.8	11.7	3,890
5-7 years complete	72.2	25.4	15.3	14.9	7,592	79.0	19.9	10.5	10.7	7,587
8-9 years complete	74.8	23.5	14.8	14.1	6,200	80.3	19.0	10.9	10.7	6,199
10-11 years complete	78.6	19.9	13.1	12.8	3,673	83.2	15.4	10.5	10.1	3,664
12 or more years complete	84.9	13.7	9.1	9.0	3,613	89.2	10.0	6.3	6.7	3,608
Religion										
Hindu	75.9	21.9	13.5	11.9	41,096	81.5	17.5	9.3	8.9	41,064
Muslim	86.6	12.1	5.5	5.5	8,466	89.3	10.1	3.5	4.2	8,449
Christian	71.1	27.4	15.5	16.1	993	75.6	23.4	14.5	14.9	993
Sikh	90.5	8.0	4.1	3.2	633	94.2	5.6	2.7	2.4	633
Buddhist/Neo-Buddhist	59.5	36.1	30.4	23.6	326	74.2	24.4	21.7	19.0	326
Jain	(93.9)	(6.1)	(6.1)	(6.1)	37	(100.0)	(0.0)	(0.0)	(0.0)	37
Other	41.1	56.6	27.8	24.7	287	44.5	54.3	17.5	20.1	287
Caste/tribe										
Scheduled caste	72.5	25.5	14.0	13.5	10,894	78.5	20.8	10.1	10.5	10,893
Scheduled tribe	59.8	36.9	25.7	19.5	4,996	66.3	32.3	17.8	15.1	4,986
Other backward class	79.3	18.8	11.6	10.3	21,803	84.5	14.6	7.9	7.7	21,793
Other	85.0	13.1	7.2	6.7	13,766	88.8	10.3	4.7	4.9	13,741
Don't know	63.5	34.6	16.5	20.2	239	77.9	21.1	11.3	14.4	237
Wealth index										
Lowest	73.6	24.1	14.9	11.4	14,158	78.5	20.5	9.9	9.0	14,149
Second	76.8	21.3	12.2	11.1	12,329	81.8	17.4	8.7	8.4	12,314
Middle	75.4	22.2	13.9	13.6	10,830	81.3	17.6	9.9	10.2	10,820
Fourth	79.1	19.1	10.9	10.7	9,089	85.1	14.1	7.3	7.7	9,076
Highest	90.4	8.3	5.0	4.6	5,481	93.2	5.9	3.5	3.5	5,478
Years since AWC was established										
<6 years ago	86.4	12.5	6.4	6.0	12,135	89.1	10.5	4.3	4.5	12,129
6+ years ago	74.7	22.9	14.1	12.5	39,751	80.6	18.3	9.8	9.4	39,709
Total	77.5	20.5	12.3	10.9	51,887	82.6	16.5	8.5	8.3	51,838

Note: Total includes children with missing information on mother's education, religion, and caste/tribe, who are not shown separately.
( ) Based on 25-49 unweighted cases.
[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Services are usually provided to breastfeeding mothers during the first six months of breastfeeding.

differentials in the utilization of these services by background characteristics of women are not very significant. However, services during pregnancy and the lactation period tend to be utilized more for births to women belonging to the 'other' religion category, scheduled-tribe women, and Buddhist/Neo-Buddhist women. The utilization of all services was also slightly more common for births to Christian women and for births to women in the lowest wealth quintile. Services during pregnancy and lactation are more commonly received from *anganwadi* centres that have existed for six or more years than from those that have been established more recently.

The percentage of women in areas covered by an *anganwadi* centre receiving supplementary food during pregnancy and lactation is more common in all states than is utilization of an *anganwadi* centre for receiving health check-ups and health and nutrition education. The percentage of births for which women received supplementary food during

pregnancy in the six years preceding the survey ranged from a high of 64 percent in Chhattisgarh to less than 1 percent in Bihar. Mizoram and Tamil Nadu are the other two states where mothers received supplementary food during pregnancy for 50 percent or more births. In Goa, Orissa, Meghalaya, Jharkhand, Himachal Pradesh, Madhya Pradesh, and Karnataka pregnant women received supplementary food for at least 30 percent of their births in the past six years. The percentage of births whose mothers received health check-ups from an *anganwadi* centre was much higher in Orissa and Chhattisgarh (42-44 percent) than in other states. In addition to Orissa and Chhattisgarh, mothers received health check-ups from an *anganwadi* centre for at least 20 percent of births in Maharashtra, Madhya Pradesh, and Tamil Nadu. This percentage is less than

Table 9.26 Indicators of women's utilization of ICDS services by state

Among children under age six years in areas covered by an *anganwadi* centre (AWC), percentage whose mothers received specific services from an AWC during pregnancy and while breastfeeding by state, India, 2005-06

State	Mother received from an AWC during pregnancy			Mother received from an AWC while breastfeeding[2]		
	Supplementary food[1]	Health check-ups	Health and nutrition education	Supplementary food[1]	Health check-ups	Health and nutrition education
India	20.5	12.3	10.9	16.5	8.5	8.3
North						
Delhi	5.3	3.5	2.7	5.0	2.8	2.7
Haryana	11.0	6.3	4.6	6.1	2.9	2.7
Himachal Pradesh	33.6	13.7	15.5	30.3	10.4	12.5
Jammu & Kashmir	6.3	1.4	2.7	4.4	1.0	1.7
Punjab	7.5	3.2	3.2	5.5	2.0	2.5
Rajasthan	17.0	10.2	4.3	12.4	7.1	3.2
Uttaranchal	18.9	4.4	5.5	14.1	4.6	4.8
Central						
Chhattisgarh	64.1	43.6	30.2	63.2	26.6	24.6
Madhya Pradesh	31.0	25.1	21.7	26.9	18.3	17.5
Uttar Pradesh	9.6	1.8	1.3	7.3	0.6	0.7
East						
Bihar	0.6	0.3	0.2	0.6	0.3	0.3
Jharkhand	34.7	13.6	13.4	35.9	9.5	12.2
Orissa	44.6	41.8	23.0	39.8	28.3	16.7
West Bengal	23.1	9.7	14.3	19.3	7.7	10.8
Northeast						
Arunachal Pradesh	9.0	1.9	1.6	5.4	0.5	1.4
Assam	12.7	2.1	1.7	12.7	1.9	2.1
Manipur	3.7	0.3	1.1	6.0	0.3	0.9
Meghalaya	36.1	15.0	25.9	34.2	14.2	25.7
Mizoram	54.5	11.7	14.5	54.6	10.3	14.4
Nagaland	5.4	0.2	0.6	4.3	0.1	0.1
Sikkim	24.6	11.3	11.7	25.2	9.4	9.9
Tripura	6.8	2.3	3.4	5.5	4.5	4.6
West						
Goa	46.4	10.8	20.5	43.3	11.4	20.8
Gujarat	19.1	14.9	13.5	12.1	7.6	8.4
Maharashtra	25.8	20.7	13.4	17.5	13.0	10.4
South						
Andhra Pradesh	22.9	13.1	15.5	17.4	11.4	12.8
Karnataka	30.3	16.9	20.8	18.4	10.5	12.5
Kerala	15.8	9.6	10.4	10.5	5.0	6.8
Tamil Nadu	50.4	35.6	36.3	42.5	29.0	29.1

[1] Supplementary food includes both food cooked and served at the AWC on a daily basis or given in the form of take home rations.
[2] Excludes children who were not breastfed. Services to breastfeeding mothers are usually provided during the first six months of breastfeeding.

2 percent in Nagaland, Manipur, Bihar, and Jammu and Kashmir. Mothers in Tamil Nadu were most likely to receive health and nutrition education from an *anganwadi* centre for their births in the six years preceding the survey. In addition to Tamil Nadu, mothers in Chhattisgarh, Meghalaya, Orissa, Madhya Pradesh, and Goa received health and nutrition education from an *anganwadi* centre for 20 percent or more of their births in the past six years.

The utilization of *anganwadi* centres for receiving supplementary foods, health check-ups and health and nutrition education by lactating mothers in areas served by an *anganwadi* centre was even lower in each state than the utilization of each of these services during pregnancy. The percentage of births for which mothers received supplementary food during the lactational period ranged from 63 percent in Chhattisgarh to less than one percent in Bihar. Women in Tamil Nadu received health check-ups and health and nutrition education in greater proportions than women in other states. In general, the pattern of utilization of services providing supplementary food, health check-ups, and health and nutrition education by lactating mothers by state was similar to the utilization of these services during pregnancy.