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Government of India
Ministry of Health & Family Welfare

2009

Coverage Evaluation Survey





2009

Coverage Evaluation Survey

All India Report

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Acronyms

AD	Auto Disable
ANC	Ante Natal Care
ANM	Auxiliary Mid-Wife
AP	Andhra Pradesh
APL	Above Poverty Line
ARI	Acute Respiratory Infection
AS	Asset Score
ASHA	Accredited Social Health Activist
AW	<i>Anganwadi</i>
AWC	<i>Anganwadi</i> Centre
AWW	<i>Anganwadi</i> Worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BCG	Bacille Calmette-Guérin
BP	Blood Pressure
BPL	Below Poverty Line
CBO	Community Based Organization
CEB	Census Enumeration Block
CES	Coverage Evaluation Survey
CHC	Community Health Centre
CS	Can't Say
CSPro	Census and Survey Processing System
DK	Don't Know
DLHS	District Level Household Survey
DPT	Diphtheria, Pertussis and Tetanus
EPI	Expanded Program of Immunization
Hep B	Hepatitis B
HH	House Hold
HHAS	House Hold Asset Score

HP	Himachal Pradesh
HPS	High Performing State
HPS	High Performing State
HSC	Health Sub-Centre
HW(M)	Health Worker – Male
ICDS	Integrated Child Development Scheme
IFA	Iron and Folic Acid
J&K	Jammu and Kashmir
JSY	Janani Suraksha Yojana
LHV	Lady Health Visitor
LPG	Liquefied Petroleum Gas
LPS	Low Performing State
LPS	Low Performing State
MCH	Maternal and Child Health
MOHFW	Ministry of Health and Family Welfare
MP	Madhya Pradesh
NFHS	National Family Health Survey
NGO	Non-Governmental Organization
NIHFW	National Institute of Health and Family Welfare
NRHM	National Rural Health Mission
OBC	Other Backward Class
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salt
ORT	Oral Rehydration Therapy
PHC	Primary Health Centre
PNC	Post Natal Care
PPC	Post Partum Centre
PPS	Probability Proportional to Size
PRC	Population Research Centre
PSU	Primary Sampling Unit
RI	Routine Immunization
SBA	Skilled Birth Attendant
SC	Scheduled Caste
SD	Standard Deviation
ST	Scheduled Tribe
TAC	Technical advisory Committee
TBA	Traditional Birth Attendant
TN	Tamil Nadu
TT	Tetanus Toxoid
TV	Television
UFWC	Urban Family Welfare Centre
UHC	Urban Health Centre
UHP	Urban Health Post
UIP	Universal Immunization Program
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh
UT	Union Territory
WB	West Bengal



Executive Summary

Promotion of maternal care and child health is one of the key goals of the Government of India. The Government of India launched the National Rural Health Mission (NRHM) in 2005 to improve health care for the rural population throughout the country with specific focus on 18 States which have weak public health indicators. NRHM seeks to improve the access for rural people, especially poor women and children, to equitable, affordable, accountable and effective primary health care. Maternal health care, promotion of institutional deliveries, home-based newborn care, integrated management of childhood illnesses (IMNCI) and routine immunizations are the key interventions under NRHM.

At the request of Government of India, UNICEF planned and conducted a coverage evaluation survey in 2009 (CES 2009) to assess the impact of NRHM strategies on coverage levels of maternal, newborn and child-health services including immunization among women and children. CES 2009 covered all the States and Union Territories of India and was undertaken with funding from IKEA Social Initiative.

ORG Centre for Social Research (ORG CSR) was entrusted to carry out the nation-wide survey. Towards this, ORG CSR was given responsibility for the development of survey design, research instruments, training, data collection, supervision of field work, data entry, analysis and report writing. Ministry of Health and Family Welfare, Government of India constituted a Technical Advisory Committee (TAC) to provide technical guidance on various activities related to CES 2009. This

included sampling, survey methodology, questionnaires, quality guidance, tabulation plan, data analysis and final tabulation data presentation. Data collection was monitored independently by the National Institute of Health and Family Welfare, New Delhi, in collaboration with Population Research Centers.

The field work was carried out between November 2009 and January 2010. The data was collected from 22,604 mothers/caretakers of children aged 12-23 months and 22,984 mothers who delivered during 12 months prior to the survey. Two bilingual questionnaires (in local language and English), one for mothers/care-givers of children aged 12-23 months and second for women who delivered during 12 months preceding the survey were used. Both the questionnaires had an initial section on the household profile. A separate questionnaire for village information was used to collect the information regarding village profile.

SURVEY DESIGN

The data for the CES 2009 was collected from mothers or care takers of child aged 12-23 months for child care services and from women who delivered during 12 months preceding the survey. Sample for each state was estimated to give results at 5% margin of error and 95% confidence interval. It was decided to have deep stratification that will make the samples more efficient and sampling biases get reduced considerably. Further, more sample was covered from bigger states. In each state, rural-urban sample was allocated in 60 to 40 ratios.

Sampling in Rural Areas

For selecting the sample in rural areas in a state, a two stage sampling procedure was followed i.e., selection of villages at the first stage followed by the selection of households. Further, in first stage, districts were grouped into regions considering geographical contiguity as per procedure followed in NFHS-3. The state rural sample was allocated to regions in proportion to their respective rural population sizes. All the villages in each geographical region were further stratified into three strata viz., villages with <50 households,

villages with 51-200 households and villages with more than 200 households. The number of PSUs in each region was allocated to each stratum in proportion to the total rural population in the region. In each region, the required number of villages was selected using PPS systematic random sampling procedure using '%SC/ST population' or '% female literacy', both as per 2001 Census, as implicit variables.

Sampling in Urban Areas

In each state all the towns were stratified in to five strata viz., metros, towns with more than 10 lakh population, towns with 5 lakh to 10 lakh population, towns with 1 lakh to 5 lakh population and towns with less than 1 lakh population. Total state urban sample was allocated to different strata in proportion to the urban population and in each stratum wards were selected using PPS systematic random sampling procedure. From each ward, one census enumeration block (CEB) was selected randomly.

Selection of Households

In each selected village/CEB complete listing of the households was done to identify households with children 12-23 months, households with mothers who delivered during last 12 months. In each village/CEB, 10 households with child age 12-23 months and 10 mothers who delivered in the last 12 months were selected using systematic random sampling procedure and from selected households all eligible mothers/care givers were interviewed.

PROFILE OF SAMPLED VILLAGES

More than four-fifths of the sampled villages were connected with all-weather roads and among the remaining villages, 32.1 percent with a motorable road. About 97 percent of the sampled villages had *Anganwadi* centres. Seventy-seven percent villages had at least one ASHA and 99 percent of the sampled villages had at least one health facility. About 95 percent villages had a primary government school and 36 percent had a middle school. Secondary/Higher secondary school existed in 34.2 percent of the villages. Ninety-seven percent of the villages had at least one education facility.

PROFILE OF SAMPLED HOUSEHOLDS

The mean household size¹ was 6.37 persons per household (6.48 in rural and 6.09 in urban areas). About 80 percent households were Hindu, 14.7 percent were Muslim and others religions were 5.3 percent. Twenty three percent of the household heads belonged to scheduled caste, 7.8 percent to scheduled tribes and 41.3 percent to Other Backwards Classes.

Data from questionnaires about housing conditions and possession of housing amenities such as improved source of drinking water; type of toilet facilities; fuel used for cooking; type of house; electricity; and household assets shows that for 47.7 percent of the households, the main source of drinking water was piped water. 40.9 percent used a hand pump and only 3.6 percent households depended on well-water. Seventy-three percent of the households had an electricity connection.

Around one-fourth of the households lived in *kachcha*² houses, 39.4 percent in *semi-pucca*³, and 35.7 percent lived in *pucca*⁴ houses.

Thirty-seven percent of the households used flush toilet facility and 16.7 percent pit latrine. Around 58.4 percent households in rural areas and 12.4 percent households in urban areas were without toilet facility and used open field for defecation.

Overall 52.8 percent of the households reported to have bank account/post office account. Around 37.6 percent of household had a BPL card (42.5 percent rural and 24.7 percent urban).

ROUTINE IMMUNIZATION

The vaccination of children against six preventable diseases viz., tuberculosis, diphtheria, pertussis,

tetanus, poliomyelitis and measles has been a cornerstone of child health care in India. As a part of the National Health Policy, the Universal Immunization Programme (UIP) is being implemented on a priority basis. The standard immunization schedule developed for the child immunization programme specifies the age at which each vaccine is to be administered and the number of doses to be given. Routine vaccinations received by infants and children are usually recorded on a vaccination card issued to a child. The analysis showed that 90.8 percent of the mothers received an immunization card for their children and 51.5 percent could show it to the interviewer.

At the all-India level, 61 percent of children aged 12-23 months received full immunization. The coverage of immunization was higher in urban areas (67.4 percent) compared to that in rural areas (58.5 percent). About 8 percent of the children did not receive even a single vaccine.

The analysis of the Hepatitis B coverage in Hep B implementing States shows that 70.7 percent of the children received the first injection of Hepatitis B. This percentage reduced to 58.9 percent for children who received all 3 injections of Hepatitis B.

Full immunization coverage was lower among children of illiterate mothers (45.3 percent) compared with children of mothers who had completed at least higher secondary (76.6 percent). Only 47.3 percent of children from lowest quintile households were fully immunized compared with 75.5 percent of children from highest quintile households.

To achieve universal immunization, it is important to understand at what stage children drop out from receiving all required vaccines. The analysis showed that 14.7 percent children who received BCG vaccine, did not get all vaccines till Measles. Around 17.7 percent children dropped out between BCG and DPT3, 10.3 percent between DPT1 and Measles and 13.3 percent between DPT1 and DPT3.

1 Not representative of the general population since the households selected in survey had either at least one child of age 12-23 months or at least one woman who delivered a baby in the previous 12 months

2 A *kachcha* is a building made of natural materials such as mud, grass, bamboo, thatch or sticks and is therefore a short-lived structure

3 A combination of the *kachcha* and *pucca* style

4 A *pucca* is a structure made from materials resistant to wear, such as forms of stone or brick, mortar, cement, clay tiles, metal or other durable materials

Higher drop-out rate from BCG to Measles was observed in States such as Uttar Pradesh (30.9 percent), Bihar (29.3 percent), Arunachal Pradesh (27.0 percent), Madhya Pradesh (24.0 percent), Jharkhand (22.8 percent) and Rajasthan (20.6 percent). The drop-out rate was low in Goa (1.3 percent), Himachal Pradesh (2.2 percent), Maharashtra (3.7 percent), Sikkim (0.1 percent) and Tamil Nadu (0.6 percent).

As per the immunization schedule, a child should get the booster dose of DPT and OPV between the ages of 16-24 months. The coverage of children by booster dose of DPT and OPV was analysed among children aged 18-23 months. About 41 percent of children received the booster dose of DPT and 37.9 percent received the booster dose of OPV.

Place of Immunization

The public sector was reported as the prime service provider for childhood vaccinations (89.8 percent). Private sector contributed to 8.7 percent of immunizations.

Nearly 53 percent of the children received vaccination from outreach vaccination sites such as *anganwadi* centre (25.6 percent), sub-centre (18.9 percent) and other places in villages (9.4 percent).

On the other hand, 49.4 percent children between the ages of 12-23 months in Bihar, 73.2 percent in Chhattisgarh, 64.9 percent in Jharkhand, 55.7 percent in Madhya Pradesh and 52.8 percent in Orissa received vaccinations at *anganwadi* centers. More children in Delhi (28.3 percent), Kerala (21 percent) and Tamil Nadu (20 percent) went to the private sector for immunization.

Distance Travelled and Time Taken for Child's Immunization

Around 44 percent of mothers travelled less than one kilometer while 39 percent traveled 1-3 kilometers to vaccinate their child. Only 17 percent of mothers reportedly travelled beyond 3 kilometers for their child's vaccination. More than 75 percent of mothers took less than 20 minutes to reach the place of immunization. The average distance travelled by a mother to reach the place of immunization was 2.2 kilometers and the average time taken was 18 minutes.

Use of Safe Injection

The national policy prescribes one auto-disabled syringe (AD syringe) to be used per immunization. Data indicates that in almost all the States both at government health facility and at outreach centres, a large majority of the children were vaccinated using safe injection or AD syringes.

Reasons for Non-Immunization

Around 28 percent of mothers, whose child received partial or no immunization, did not feel the need of adhering to the schedule of immunization. Twenty six percent did not know what vaccines were needed and when; and about 10.8 percent did not know the place of immunization.

MATERNAL CARE SERVICES

Registration of Pregnancy

Overall, 91.9 percent of mothers registered their last pregnancy. The majority of women registered their pregnancy with government health functionaries such as a government doctor (38.7 percent), ANM (14.8 percent) and an *anganwadi* worker (14.9 percent).

Antenatal Care

At the all-India level, 90.4 percent of the recently-delivered women received at least one antenatal check-up during the last pregnancy and 68.7 percent women received three or more check-ups during the antenatal period. The proportion of women who received at least one antenatal check-up was higher in urban areas (95.8 percent) as compared to rural areas (88.3 percent).

Around 59 percent women received the first antenatal check-up in the first trimester. The public sector was the main source for receiving antenatal care services - 34.4 percent women got an ANC check-up done at government hospital, 12.8 percent in a sub-centre, 10.8 percent in a PHC, and 11.1 percent in an *anganwadi* centre.

More than 70 percent women reported that their weight was taken, blood pressure was checked, blood and urine were tested, abdomen and breast examined and that they received nutritional advice.

Around 81 percent women in India reported to have received IFA tablets or syrup during the last pregnancy. The percentage of women receiving IFA supplements was comparatively higher in urban (86.1 percent) than rural areas (79.6 percent). About 36 percent mothers received 100 tablets or syrup for 3 months and 31 percent consumed tablets or syrup for 100 or more days.

At the national level, 26.5 percent women received full ANC⁵. The proportion of women with full ANC was more in urban (36.1 percent) than rural (22.8 percent) areas. It increased with the increase in educational level of women from 12.0 percent for illiterates to 50.5 percent for women who had passed at least senior secondary, and from the lowest wealth quintile (11.5 percent) to the highest (47.4 percent).

Accessibility of ANC Services

The nearest source for antenatal care services was government hospital at district/block level for around one-fourth of the women. About 21.3 percent reported the PHC and 20.0 percent the sub-centre as the nearest place for ANC while another 22.0 percent women reported private doctor/clinic as the nearest place. More women in urban areas reported government and private hospital/clinic as the nearest source, than rural women.

One-third of the women reported a facility within one kilometre from their place of residence, and another 31.0 percent reported the facility within 1-2 kilometres. Around two-thirds of the women reported that it took less than 20 minutes to reach the facility for getting antenatal services.

Complications during Pregnancy

About 71.8 percent of the women faced at least one complication during pregnancy. The most common complications were giddiness/paleness (37.6 percent), swelling of face/feet (29.4 percent), excessive fatigue (25.4 percent), excessive vomiting (28.1 percent), visual disturbances (12.5 percent) and weak or no movement of foetus (10.8 percent).

Most women who faced any complication during their pregnancy consulted private doctors (54.0

percent). Others consulted government doctors (29.4 percent) and PHC (8.0 percent). About 33 percent women reportedly did not consult anybody. A comparatively higher percentage of women in rural areas (35.6 percent) did not consult anyone for complications than urban women (25.9 percent).

NATAL CARE

Place of delivery and Assistance during delivery

Overall 72.9 percent of births took place in some institution. Forty-seven percent of women delivered in public institutions such as a government hospital, PHC, CHC/rural Hospital, sub-centre as compared to 25.9 percent in a private hospital or a clinic. About 76.2 percent of the deliveries were reportedly attended by skilled health personnel.

Nearly 55.9 percent of women were motivated by their husbands or another family member to opt for institutional delivery; 48.1 percent by a skilled birth attendant; 29.5 percent by doctors; and 27.7 percent by relatives or friends. 13.8 percent of the women reported that ASHA motivated them for institution delivery.

Based on mothers' reports, almost 83.6 percent deliveries (87.5 percent in rural areas and 73.5 percent in urban areas) were normal and 15.1 percent were caesarean section. The proportion of caesarean section deliveries reported by mothers was much higher in urban areas (24.3 percent) than in rural areas (11.5 percent).

Mode of Transport, Transport Cost and Delivery Cost

Nearly 37.4 percent women used either ambulance or jeep/car to reach the health facility for delivery; 7.5 percent travelled by motor-cycle or scooter and 34.1 percent used tempo/auto/tractor to reach the health facility. Rural women reportedly travelled an average of 11.2 km. and urban women only 4.9 km. to reach the place of delivery.

5 Full ANC: when a woman receives all these services such as 3+ antenatal care checkups, 1+ tetanus toxoid injection and consumes 100+ iron and folic acid tablets during pregnancy

The mean transport cost for delivery was Rs. 192/-. It was Rs. 243/- in rural areas and Rs. 140/- in urban areas.

Duration of Stay after Delivery

Among the women who had normal or assisted delivery, 20.2 and 20.1 percent respectively were discharged after 2 and 3 days and another 14.6 percent after 4 days of delivery. About 45 percent women stayed for less than required duration (that is at least 48 hours after the delivery) at the health facility.

About 82 percent of the women who had caesarean delivery stayed for 4 or more days in the health facility.

Women in low-performing States stayed at the health facility for a relatively longer period as compared to women in high-performing States. For instance, in low-performing States, 52.9 percent of the women with normal delivery/assisted delivery were discharged after 48 hours as compared to 42.6 percent in high-performing States.

Reasons for Not Going to a Health Institution for Delivery

The main reasons for not delivering in an institution were 'no time to go' (40.6 percent), 'it was not necessary' (24.6 percent), 'better care at home' (20.1 percent) and 'costs too much' (17.9 percent). The 'family did not allow' was reported by 10.3 percent of the women.

LEVEL OF AWARENESS AND UTILIZATION OF JANANI SURAKSHA YOJANA

Sixty percent of the women were aware of the *Janani Suraksha Yojana (JSY)*⁶ scheme. Awareness of the JSY scheme was better among women from BPL families (64.3 percent) than APL families (57.5 percent). The scheduled caste and scheduled tribe women had better awareness of the scheme than OBC and women of general caste.

Under NRHM, more focus is given to States where maternal and infant mortality is high. Awareness about JSY was slightly high among women from high-performing States (61.1 percent) as compared to those from low-performing States (58.9 percent).

Nearly one-third of women reported that they had received some assistance during the last delivery. A higher proportion of women in rural areas (35.5 percent) received government assistance as compared to women in urban areas (24.7 percent). Around 59.3 percent women who delivered in government institutions received assistance under JSY. Significantly higher percent of women from low-performing States (40.0 percent) received JSY assistance as compared to women from high-performing States (25.5 percent).

More scheduled caste and scheduled tribe women, women from BPL families, and those from lowest wealth quintile households received government assistance than their counterparts.

Assistance Received from ASHA

Besides facilitating women's antenatal check-ups, the ASHA should help to arrange transport for the pregnant women and accompany her to the health facility.

Thirty percent of the women reported that ASHA accompanied her to the health facility for delivery and 26.7 percent further reported that ASHA stayed back with them at the health institution.

ASHA accompanied 54.3 percent of women who delivered in government institutions, in low-performing States, In 49.1 percent cases she stayed with the women. On the other hand, in the high-performing States, ASHA accompanied women only in 11.2 percent and she stayed at the health facility in 8.9 percent cases.

Post Natal Care for Mothers

Nearly three-fifths of the women reported receiving a postnatal check-up within the first 10 days of delivery. Around 21.6 percent women received at least 4 checkups; another 8.6 percent received 3 check-ups in 3-7 days of delivery.

6 Janani Suraksha Yojana is a cash incentive given to women for institutional delivery by Government of India under National Rural Health Mission. For more information see JSY guidelines at www.mohfw.nic.in/layout_09-06.pdf

Around 56 percent of the women received a postnatal check-up in a public health facility and another 38 percent women received them at a private facility.

During these visits, women received services such as abdomen check-up (85.5 percent), blood pressure check (75.3 percent) and vulva and perineum examination (55.3 percent). In addition, the women were also advised on breastfeeding practice (78.0 percent), child care (75.0 percent), nutrition (71.9 percent) and family planning (55.0 percent).

NEWBORN CARE

Post Natal Care for New Born

Around two-thirds of new-born children received post-natal check-ups and 45.4 percent received at least 3 postnatal check-ups within 10 days after birth. During the visit, the child's umbilicus, skin and eyes were checked (86.4 percent), and the mother was advised on breastfeeding practices (79.6 percent) and to keep the baby warm (62.5 percent).

Public medical sector (56.7 percent) was the main service provider of postnatal check-ups.

CHILD NUTRITION

Breastfeeding practices

Around one-third of total mothers reported that they started breastfeeding the child within one hour of birth and 24.2 percent began breastfeeding within 1-2 hours after delivery. 73.1 percent women started breastfeeding their children within one day of birth.

Nearly 85 percent of women fed colostrum to their child. Colostrum feeding was practised slightly more by women of urban areas (87.2 percent) than those from rural areas (84.6 percent).

Among those who did not feed colostrum, two-fifths of the mothers did not do so due to pressure of their relatives, misconception (17.1 percent) or

they were advised not to feed colostrum for first three days (10.1 percent).

Women, who belonged to a younger age group, higher education, and from higher wealth quintile, were more likely to start breastfeeding within 24 hours of birth, and feed colostrum to the child, as compared to their counterparts.

Around 81 percent of infants of less age than 2 months were exclusively breast fed. Thereafter, exclusive breast feeding rates declined rapidly and only 37 percent of children in 6-9 months of age group were exclusively breast fed. The median duration of exclusive breastfeeding was 3.8 months.

About 40.7 percent of mothers started giving water to the child before 6 months of age; 28.1 percent gave other animal milk and 12.2 percent of the mothers started with other supplements.

Feeding Practices

After six months of age, the introduction of complementary food is important for meeting the protein, energy, and micronutrient needs of the child. When the child became more than 6 months of age, about 44.9 percent of mothers started giving other fluids like juice; another 62.6 percent started with semi-solid food and 41.8 percent with solid foods.

Vitamin A Coverage

Around two-thirds of children between 12-23 months received at least one dose of Vitamin A and 59.4 percent had received it within the past six months.

Children living in urban areas, children of more educated mothers and children of higher wealth quintile households were more likely than other children to receive Vitamin A supplementation.

Use of Iodized Salt

Nearly 71 percent of the cooking salt (obtained from the household during the survey and tested) was iodized at the recommended level of 15 ppm⁷ or more. In 9.3 percent of the households the cooking salt was not iodised at all and 19.3 percent used salt that was iodised inadequately (<15 ppm).

7 ppm = parts per million

More urban households (83.2 percent) had adequately iodized salt (with 15 ppm or more iodine content) as compared to rural households (66.1 percent).

The use of iodized salt was high in north-eastern States and in States of Delhi, Goa, Haryana, Himachal Pradesh, J&K, Punjab and all UTs ranging from 80 percent to 94 percent. In States like Karnataka, Andhra Pradesh, Tamil Nadu, Uttar Pradesh, Orissa, and Jharkhand, use of non-iodised salt seemed more, as common compared to other States.

CHILD MORBIDITY

Management of Childhood Diarrhoea

Around 15.5 percent of the children had suffered from diarrhoea during two weeks preceding the survey. Mother's education, wealth index and type of sanitation facility used, influenced the prevalence of diarrhoea. Prevalence of diarrhoea during 2 weeks preceding the survey varied across States. It ranged from 4.8 percent in Sikkim to 26.2 percent in Karnataka.

Treatment-seeking behaviour shows that 76.1 percent children who suffered from diarrhoea during 2 weeks preceding the survey, received advice/treatment. Comparatively more children (48.4 percent) received advice/treatment from a private health facility/provider than a government health facility/provider (20.9 percent).

Nearly 43 percent of the mothers, whose children suffered from diarrhoea during the two weeks

preceding the survey, gave ORS to their children. Harmful practices were still prevalent during management of childhood diarrhoea such as providing less than the normal breast milk (30.2 percent) or giving less fluid to drink (34.5 percent).

Management of Acute Respiratory Infection among Children

Acute Respiratory Infection (ARI), primarily pneumonia, is one of the leading causes of childhood morbidity and mortality. Early diagnosis and treatment can prevent a large proportion of ARI related deaths. 18.8 percent of children below 2 years reportedly suffered from ARI symptoms.

ARI symptoms were more common among children from households with the lowest wealth quintile (20.7 percent) than households with the highest wealth quintile (16.5 percent).

Around 83 percent of children who had ARI symptoms were taken to a health facility or health provider for treatment. More children were taken to a private health facility/provider (63.4 percent) than government health facility/provider (21.1 percent).

Use of Bed-nets Among Children

Only 28.5 percent of the households of children between the ages of 12-23 months had a bed-net and 22 percent of the mothers/care givers reported that the index child slept under it all seven days. Use of bed-nets was found to be more than 85 percent (for all 7 days of the week) in malaria endemic States such as Arunachal Pradesh, Assam, Manipur, Mizoram, Tripura and West Bengal.



Chapter 1

Introduction

1.1 BACKGROUND OF THE STUDY

Promotion of maternal care and child health is one of the key objectives of the Reproductive and Child Health (RCH) Programme and the National Rural Health Mission (NRHM) in India. The Government of India is making concerted efforts in improving the quality and access of maternal, newborn and child care as well as immunisation services.

The National Rural Health Mission (NRHM) was launched by the Government of India on April 12, 2005, with a vision to improve health care for the rural population throughout the country. Its special focus was on 18 States which have weak public health indicators. The 18 high-focus States are Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Orissa, Uttaranchal, Jharkhand, Chhattisgarh, Assam, Sikkim, Arunachal Pradesh, Manipur, Meghalaya, Tripura, Nagaland, Mizoram, Himachal Pradesh and Jammu & Kashmir. All 8 North-East States, are among the States selected under the Mission, for special focus.

Among its other goals, NRHM seeks to improve the access of rural people, especially poor women and children, to equitable, affordable, accountable and effective primary health care. Maternal reproductive health care, promotion of institutional deliveries and routine immunizations are the key interventions of NRHM.

To realize its vision, NRHM has as its key components, provision of a female Accredited Social Health Activist

(ASHA) in each village; a village health plan prepared through a local team headed by the Village Health & Sanitation Committee (VHSC) with adequate support from the Panchayat; strengthening of the rural health facilities for effective preventive-curative care through Indian Public Health Standards (IPHS); and integration of vertical Health & Family Welfare Programmes and Funds, for optimal utilization of resources, infrastructure and strengthening delivery of primary healthcare.

NRHM also envisages improved facilities for institutional delivery through provision of referral, transport, escort and improved hospital care subsidized under the *Janani Suraksha Yojana* (JSY) for the Below Poverty Line (BPL) families.

The specific outputs of the Reproductive and Child Health (RCH) program (Phase II), within the overall umbrella of NRHM, contribute to the longer term goals of reducing maternal and infant mortality rates and stabilizing the population. They include:

- Increased contraceptive use by eligible couples
- Reduced unmet need for birth spacing
- Increased use of skilled care during childbirth
- Improved postnatal and newborn care
- Better access to emergency obstetric services and care of sick children
- Improved coverage for childhood immunization

At the request of the Government of India, UNICEF has been conducting a Coverage Evaluation Surveys (CES) every year since 1995 (except during 2002-04) to assess the key indicators related to the Universal Immunisation Program and maternal care services.

UNICEF organised a coverage evaluation survey in 2009 (CES 2009) to assess the utilisation of maternal, newborn and child health services including immunisation. The Coverage Evaluation Survey 2009 -- a nationwide survey covering all the States and Union Territories of India -- was undertaken with the funding from IKEA Social Initiative.

1.2 OBJECTIVES OF THE EVALUATION

The basic objective of CES 2009 was to assess the maternal and child health coverage including routine immunisation levels among women and children.

The specific objectives of the survey were:

- To assess routine immunisation (RI)
- To assess the level of coverage of antenatal care (ANC), delivery care, and post-natal care (PNC)
- To assess accessibility, availability and utilization of immunisation and maternal care services including JSY
- To identify key problems in a) delivery of immunisation, b) ANC, c) delivery care and d) PNC services
- To assess the care-seeking behaviour for key child morbidities ARI and diarrhoea
- To assess the initiation of breastfeeding, exclusive breast-feeding and complementary feeding
- To assess availability and use of iodised salt; Vitamin A coverage
- To assess the utilisation of bed-nets by pregnant women and children

ORG Centre for Social Research (ORG CSR) was entrusted to carry out the nation-wide survey and was responsible for the development of survey design, research instruments, training, data collection, supervision of field work, data entry, analysis and report writing.

The Ministry of Health and Family Welfare, Government of India constituted a Technical Advisory Committee (TAC) to provide technical guidance on various activities related to CES 2009. This included sampling, survey methodology, questionnaires, quality guidance, tabulation plan, data analysis and final tabulation data presentation. The data collection was monitored independently by the National Institute of Health and Family Welfare, New Delhi, in collaboration with Population Research Centers (PRC).

CES 2009 was conducted between November 2009 and January 2010 covering all States and Union Territories.

1.3 WHAT CHANGED IN CES 2009

UNICEF had been conducting the CES in the past. A conscious effort was made to align the survey with the other large surveys and improve the quality and reliability of the estimates. The following were the major changes in the CES 2009 when compared to previous CES by UNICEF:

1. A Technical Advisory Committee was set up by the MOHFW, Government of India to advise and provide technical oversight to the CES 2009.
2. The sampling design was adapted to the PPS sampling method to allow for efficient selection of small villages/habitations.
3. The questionnaires were reframed to align with the DLHS3/NFHS3 so that the indicators and coverage estimates are comparable with these surveys.
4. Questionnaires were oriented with the current health programming in RCH-II and NRHM to include key initiatives such as JSY
5. Knowledge questions were replaced with practice questions resulting in information on current practices on maternal and child health
6. While retaining the immunization focus, the maternal and child health portions were expanded.
7. Indicator list was revised and expanded to include indicators that are useful for monitoring of the maternal and child health programming.
8. Presentation of National and State data, in the form of fact sheets, were developed

1.4 TIME TAKEN FOR PLANNING AND IMPLEMENTATION OF SURVEY

The planning for CES 2009 began towards the end of 2008 and the entire process was completed in December 2010. The various steps undertaken for this survey were - advocacy, survey designing, review and firming survey methodology, updating and revision of questionnaires, technical advisory meetings with the TAC, trainings, monitoring, data collection, finalizing list of indicators, data analysis, tabulation, data cleaning, quality assurance, data presentation, conceptualization and designing/ layout of fact sheets and report, report writing, editing, printing and finally the dissemination of the reports and fact sheets.

1.5 RESOURCES USED FOR CES 2009

The approximate expenditure on the entire survey was US\$ 385,600⁸ that was spent over 26 months. The breakup is given below:

Cost Centers	Approximate Cost in Indian Rupees
Agency fee for conducting survey	1,30,00,000
Independent monitoring	30,00,000
UNICEF cost (staff time, meetings and administrative expenses)	12,00,000
Report/fact sheet design and layout	20,00,000
Printing	6,00,000
Launch and dissemination	2,50,000
Total	1,73,50,000

8 1US\$ = 45 Indian Rupees



Chapter 2

Methodology

2.1 SURVEY DESIGN AND SAMPLE IMPLEMENTATION

Study Universe

All children aged 12-23 months and women who delivered during 12 months preceding the survey in the urban and rural areas in the country formed the two universes of the study.

Target respondents

The information was collected from the following target respondents:

- Mothers/care givers of children aged 12-23 months
- Women who delivered during 12 months preceding the survey

Survey instruments

For each of the above respondent categories, separate questionnaires were prepared to gather the information required for the study:

- a. Questionnaire for routine immunisation coverage of children aged 12-23 months
- b. Questionnaire for maternal care services of mothers who delivered during 12 months preceding the survey
- c. Village information questionnaire

While developing the questionnaire, the questions used in the CES-2006 as well as NFHS-3/DLHS-3 were consulted to increase comparability. The draft questionnaires were vetted by UNICEF, Technical Advisory Committee and the Government of India for comments. The revised questionnaires were pre-tested to check the flow of questions and necessary skips and filters. Based on the pre-

test results, the questionnaires were then modified. The modified questionnaires were examined and approved by UNICEF. The finalised questionnaires were translated into local languages.

Bilingual questionnaires in the local language and in English were used. Both the questionnaires had an initial section on the profile of the household. This section included information on usual members in the household, the main source of drinking water, type of toilet facility, type of fuel they used for cooking, household assets and durable goods, type of the house they lived in and ownership of the house and agriculture land. Information was also collected on whether any household member had a bank/post office account and BPL status of the household. In addition, in all sampled households, a test was conducted to assess the iodine content of the salt used for cooking.

The other sections in both the questionnaires were specific to the respondent category.

Child Immunization Coverage Questionnaire

- *Background characteristics* included respondent's age, education status, number of deliveries, live births and living children and use of insecticide treated bed-nets.
- *Issue of immunization card* questions covered issue and availability of immunization card, source of the card, completeness of the card and reasons for not getting the card made for the index child.
- *Routine immunization coverage* questions included coverage by different antigens and age at which these vaccinations were given, source of vaccination, use of disposable/Auto Disable (AD) syringe and reasons for no or partial immunisation.
- *Exclusive and supplementary feeding practices* questions included the length of exclusive breastfeeding and colostrum feeding and type of food given in the first 6 months and age at which supplementary feed started.
- *Knowledge and awareness of immunizations* questions covered knowledge of different vaccines given to the child by age 1, number of doses and age at which first dose is given, knowledge of source of vaccination and perceived importance of vaccinating a child.
- *Accessibility of immunization services* covered availability and accessibility to the nearest place for immunisation, ANM's visit to the village/

area, holding routine immunisation sessions and their satisfaction with immunisation sessions.

Maternal Care Services Questionnaire

- *Background of the respondent* included respondent's age, education status, number of deliveries, live births and living children, outcome of the last pregnancy and use of treated bed-net.
- *Antenatal care* section collected information on registration of pregnancy, time of registration, number of ANC's received, type of check-ups done, receipt of tetanus toxoid (TT) and iron and folic acid (IFA) tablets, place of getting these services and source of information.
- *Complications during pregnancy:* included questions on knowledge of complications during pregnancy and place of treatment, complications faced during index pregnancy and place of treatment.
- *Natal care* included questions regarding place of delivery, assistance during delivery, use of Disposable Delivery Kit (DDK), nature of complications during last delivery.
- *Postnatal care* questions were asked on birth preparedness, post-natal care and type of check-ups done for mothers and newborns during post -natal visit.
- *Breast feeding practices* questions included initiation of breast feeding and colostrum feeding, breast feeding practices during fever, cough and diarrhoea.
- *Janani Suraksha Yojana (JSY):* Aspects elicited on included awareness of JSY scheme, assistance received under JSY scheme, transport arrangements and help provided by ASHA.
- *Accessibility of maternal services* covers issues on availability and accessibility of nearest place for ANC, ANM's visit to the village/area and type of services she gives.

Village Questionnaire

Village information was collected for each selected village. The village questionnaire collected information on road connectivity, health and education facilities and amenities such as electricity, drinking water, telephone, and post office.

Sample Size Calculation

The study was designed to provide State and national level estimates. While calculating the State sample, key indicators such as proportion of 12-23 month old-children fully immunized, percentage of

women with 3 ANC visits, and percentage delivery by skilled birth attendant (SBA) were considered to be studied at State level. The assumption was made that the minimum sample size required at State level should be able to estimate the true value with 5 percent margin of error at 95 percent confidence level. The true value of a given indicator was assumed at 50 percent in a given State and a design effect of 1.5. An expression for the required sample for a given State/UT is given below.

$$n = D * z_{1-\alpha/2}^2 * P * (1 - P) / d^2$$

Where,

n = the required sample size

$Z_{1-\alpha/2}$ = The Z - score corresponding to ' α ' level of confidence, i.e., ± 1.96

d = the permissible margin of error in the estimate (5 percent)

P = the assumed value of the indicator (50 percent)

D = Design Effect (1.5)

Using the above formula, the minimum sample required for urban or rural areas was 576 each for children aged 12-23 months or mothers who delivered the last 12 months. The sample for some States was further increased to take care of variations in the States due to the size and heterogeneity of the population.

In each Primary Sampling Unit (PSU) - village/census enumeration block (CEB) - on an average, a sample of 10 mothers of children 12-23 months and 10 women who delivered during last 12 months were fixed in order to have a good spread of the PSUs in a State. Based on this assumption the number of PSUs in each State was calculated.

Sampling Design

In rural areas of each State a two/three stage stratified sampling design was used with villages as the first stage units and the respondent categories as the second stage units. In bigger villages, the PSUs were segmented and two segments were selected adding one more stage of sampling. In urban areas of each State three stage sampling design was followed with wards as the first stage units and enumeration blocks and respondents as the second and third stage units.

Sample Allocation and Sampling in Rural Areas

All the districts in a State were grouped into regions considering geographical contiguity as per procedure

followed in NFHS-3. The State rural sample size was allocated to regions in proportion to their respective rural population sizes. All the villages in each geographical region were further stratified into three strata viz., villages with less than 50 households, villages with 51-200 households and villages with more than 200 households. The number of PSUs in each region was allocated to each stratum in proportion to the total rural population in the region. In each region, the required number of villages was selected using probability proportion to size (PPS) systematic random sampling procedure using '%SC/ST population' or '% female literacy', both as per 2001 Census, as implicit variables of stratification.

Sample Allocation and Sampling in Urban Areas

In each State all the towns were stratified into five strata viz., metros/towns with less than 1 lakh population, towns with 1-5 lakh population, towns with 5-10 lakh population and towns with more than 10 lakh population. Total State urban sample was allocated to different strata in proportion to the urban population and in each stratum; wards of all the towns belonging to that stratum were selected using PPS systematic random sampling procedure. Town selection was avoided to increase efficiency of sampling. From each ward, one census enumeration block (CEB) was selected randomly.

Selection of Households

In each selected village/CEB complete listing of the households was done. Based on the listing of households, two sampling frames were prepared, viz. (1) list of households with mothers of child 12 – 23 month old and (2) households with mothers who delivered during 12 months preceding the survey. In each village/CEB, 10 households with child age 12-23 months and 10 households with mothers who delivered in the last 12 months were selected using systematic random sampling procedure using these sampling frames respectively. All eligible mothers/care givers were interviewed from the selected households.

Sample Implementation

In the selected households, interviews were completed with 22,604 mothers/care givers of children aged 12-23 months. 22,984 women who delivered during the last 12 months were interviewed. In both the categories more than half of the respondents were from the rural areas. Table 2.1 shows the States/UT-wise sample covered for both categories of respondents.

Table 2.1: States-wise number of respondents interviewed and response rate

States/UTs	Children aged 12-23 months				Women Recently Delivered**			
	Rural	Urban	Total	RR*	Rural	Urban	Total	RR*
Andhra Pradesh	537	350	887	88.7	545	351	896	89.6
Arunachal Pradesh	353	232	585	97.5	347	222	569	94.8
Assam	539	336	875	95.1	538	343	881	95.8
Bihar	628	427	1055	87.9	642	424	1066	88.8
Chhattisgarh	261	261	522	87.0	272	261	533	88.8
Delhi	59	526	585	97.5	58	531	589	98.2
Goa	261	273	534	89.0	266	277	543	90.5
Gujarat	462	324	786	87.3	469	331	800	88.9
Haryana	335	299	634	99.1	337	302	639	99.8
Himachal Pradesh	275	272	547	91.2	286	277	563	93.8
Jammu & Kashmir	320	300	620	96.9	321	301	622	97.2
Jharkhand	374	261	635	90.7	371	266	637	91.0
Karnataka	433	318	751	89.4	466	323	789	93.9
Kerala	473	287	760	90.5	500	332	832	99.0
Madhya Pradesh	623	417	1040	86.7	626	420	1046	87.2
Maharashtra	624	396	1020	87.9	603	401	1004	86.6
Manipur	364	266	630	100.0	365	264	629	100.0
Meghalaya	344	242	586	97.7	341	240	581	96.8
Mizoram	366	258	624	100.0	359	260	619	99.8
Nagaland	360	281	641	100.0	359	280	639	99.8
Orissa	559	330	889	88.9	590	357	947	94.7
Punjab	301	269	570	89.1	314	269	583	91.1
Rajasthan	526	368	894	89.4	553	355	908	90.8
Sikkim	337	198	535	89.2	329	208	537	89.5
Tamil Nadu	652	416	1068	89.0	667	437	1104	92.0
Tripura	360	243	603	100.0	360	240	600	100.0
Uttar Pradesh	672	440	1112	92.7	687	448	1135	94.6
Uttarakhand	292	284	576	96.0	294	286	580	96.7
West Bengal	501	326	827	89.9	518	320	838	91.1
Andaman & Nicobar Islands	94	75	169	84.5	101	82	183	91.5
Chandigarh	57	135	192	96.0	60	127	187	93.5
Dadra & Nagar Haveli	71	109	180	90.0	71	109	180	90.0
Daman & Diu	54	115	169	84.5	56	136	192	96.0
Lakshadweep	72	74	146	91.3	77	71	148	92.5
Puducherry	96	261	357	89.3	101	284	385	96.3
Total	12635	9969	22604	91.6	12849	10135	22984	93.2

* RR: Response Rate = (Number interviewed/Target sample) * 100

** Women recently delivered: Women who delivered during 12 months preceding the survey

2.2 RECRUITMENT, TRAINING AND FIELDWORK

The recruitment for listing teams and the main survey teams was done at the State level. Field executives of the respective States recruited candidates primarily from a panel of interviewers and supervisors experienced in conducting surveys in social research.

In order to maintain uniform survey procedures across States, two instruction manuals - one for listers and the other for main survey teams - were prepared. The listing manual contained procedures to be adopted for house listing and modalities of asking the information required to develop sampling frames. The interviewer's manual contained instructions for the interviewers regarding interviewing techniques, field procedures, and the method of asking questions and recording answers. Besides, the second manual explained the concepts and purpose of asking specific questions pertaining to critical indicators.

Field executives from all the States, core study team members and representatives from NIHFV & PRCs (for the purpose of monitoring of data collection) were trained in a Training of Trainers workshop organized in Delhi. The purpose of this workshop was to ensure uniform procedures to be followed for data collection in all States/UTs. The workshop covered subjects like survey methodology, reporting structure, procedures to be followed, details of each of the three questionnaires and listing form and supervision. UNICEF representatives also participated in the Training of Trainers workshop and gave PowerPoint presentations to the participants on various aspects related to immunisation, maternal care and the importance of the study.

Fieldwork in each State was carried out by a number of interviewing teams, with each team consisting of four female interviewers and one male supervisor. These interviewers were recruited, taking into consideration their educational background, experience and other relevant qualifications. In each State three days training was given to the field staff. Training of interviewers consisted of a combination of classroom training and a field visit.

All queries were written down and clarified in order to avoid mistakes during actual interviews. A mock interview was also conducted. After the classroom training, the interviewers also practiced interviewing mothers during field trials. The field supervisor played an important role in training and ensuring the quality of data. They spot checked the addresses of the selected units interviewed, reviewed the questionnaires for completeness and consistency, met the team members daily to review the performance, and helped in solving any problems that arose during the interviews and fieldwork.

During the data collection and administration of questionnaires, the common salt used for cooking in that house hold was obtained to test the iodine content. The salt-iodine test kit, produced by MBI chemicals, Chennai (India), is a starch-based test. Test instructions suggested by the manufacturer of the kit were followed in this survey. According to the manufacturer's instructions, the test can be used semi quantitatively to measure iodine in salt at 0, 7, 15, and >30 ppm⁹, depending on the intensity of the colour obtained. If the test showed "no iodine" on the first testing, the test solution was added again after acidifying the salt sample with re-check solution. This was required to neutralize the presence of alkali in the salt. If the test showed "no iodine" when tested for a second time, this was taken as the true test result.

2.3 DATA PROCESSING AND ANALYSIS

Completed questionnaires were sent to the selected field offices for data processing, which consisted of office editing, coding open-ended questions, data entry, and machine editing. The data entry of filled-in questionnaires was done using CsPro (Census & Survey Processing System) with in-built range and consistency checks.

The tabulation plan was prepared and submitted to UNICEF and the Government of India for their comments and suggestions. Based on the comments received from UNICEF the tabulation plan was finalised. The required tables were generated using Statistical Package for Social Studies (SPSS). All major indicators such as

9 parts per million

immunisation, vitamin A coverage, antenatal care, tetanus toxoid and Iron and Folic Acid (IFA) coverage, delivery care, and postnatal care were considered against rural/urban differences as well as SC/ST and other caste differences. Several critical indicators in the study were further examined according to gender, religion, age of mother, literacy of mother, and wealth quintile. The following paragraphs detail the process followed in developing asset quintiles.

Calculation of Asset Quintiles:

The CES-2009 asked about certain aspects of household ownership to determine wealth/asset quintiles. Based on the methodology used in NFHS, assets, amenities, facilities and consumer durable items were included¹⁰. Applying principal component analysis, asset scores were computed for each single household and then normalised.

Possession of each item was converted into a dichotomous variable. For example, if a household had TV it was given a score '1' and the household which did not have TV was given a score of 0. In case a variable had more than two values/code categories, then one of them was given value '1' and the remaining values were equated to '0'. For instance, in case of type of house the *pucca* house was given score '1' and the remaining categories namely *semi-pucca* and *kachha* were given a score of '0'. Considering all these dichotomous variables, principal component analysis was applied and each of the above household assets was assigned a weight or a factor score derived through it. The Asset score was determined using the following formula:

$$\text{Asset Score (AS)} = \frac{\text{Value of Asset Variable} - \text{Mean of Asset Variable}}{\text{SD of Asset Variable}} \times \text{Asset Factor Score}$$

In the next step all the AS were added at the household level to get the Total Asset Score for each of the households. Then the households were ranked according to their individual Household Asset score (HHAS) and then divided into five

quintiles with the same number of individuals in each. This provided the cut-off points or the ranges for each quintile.

Sample Weights

Sampling weights for children age 12-23 months and recently-delivered women were generated separately for rural and urban areas for each State. These design weights were used for computation of State level indicators. Then taking into account the population distribution and sample distribution, by States/UTs, the correction factors were applied on State weights to obtain the national weights. As an example, the computation of weights for rural areas in a given State for mothers with child 12-23 months was discussed below:

Let,

$$f_i^i = \text{Probability of selection of } i\text{th rural PSU in a State} \\ = \frac{h_i}{H_i}$$

Where,

h_i is the total rural population of the selected PSU of the i th State

H_i is the total rural population of the i th State

$$f_2^{ij} = \text{Probability of selecting segment(s) from segmented } j\text{th PSU of the } i\text{th State} \\ \text{(in case the } i\text{th selected PSU is segmented)} \\ = (\text{Number of selected segments}) / (\text{number segments made in the PSU})$$

The value of f_2^i is to be equal to one for un-segmented PSU.

f_3^{ijk} = probability of selecting k th respondent (HH) from the total listed respondents of a j th PSU of the i th s State or in segment(s) of a PSU

$$= \frac{HS_i}{HL_i}$$

10 Please see the Appendix-1 for the actual list of facilities, amenities and assets used for the development index.

Where HLi is the number of (HH) respondents listed in j th PSU of the i th State and iHS is the number of respondents per PSU assigned for the j th PSU is 10.

The probability of selecting a respondent from i th State (rural) works out thus,

$$f^i = (f_1^{ir} f_2^{ij} f_3^{ijk})$$

The non-normalized household weight for the i^{th} State is,

$$w^i = \frac{1}{f^i * HR_i}$$

Where, HR_{ijk} is the response rate in j th PSU of the i th State. The normalised weight (W_i^d) used in the generation of i th State is

$$W_i^d = \frac{n_i}{\sum_{i=1}^N n_i * w^i} * w_i^i,$$

Where n_i is the total number of mothers of child age 12-23 month interviewed in the i^{th} State.

India weights for the respondents are further derived from the State weights W_i^d using the following procedure:

Let, n_s and N_c denote the number of households in the sample and census at a national level

$$n_s = \sum n_i$$

where n_i is the corresponding sample of i^{th} State

$$N_c = \sum N_{ci}$$

where $\sum N_{ci}$ is the total rural population of the i^{th} State

$$W_n = W_i^d * \left[\frac{N_{ci} / N_c}{n_{si} / n_s} \right]$$

Computation of urban weights: The above procedure was followed to work out the weights for each urban stratum and thereafter national urban weights were worked out on the lines discussed above.

2.4 QUALITY CONTROL AND MONITORING OF DATA COLLECTION

The monitoring of CES by an independent agency was done to reduce the errors that may occur due to problems in training of investigators and supervision/monitoring of fieldwork. It becomes difficult to correct/compensate for errors after data compilation and analysis take place. More specifically monitoring was designed to:

1. Ensure whether work (training of field investigators and actual data collection in the field) was being done as per the methodology
2. Ensure whether the timelines were being adhered to by the implementing agency
3. Provide technical support in the form of identifying any systemic error being committed by the field staff during fieldwork and bringing it to the notice of the agency's supervisors/MOHFW/UNICEF; any misinterpretation of the questions or any other matter which may lead to non-sampling errors and such other matters which would have adverse effects on the survey and its results.
4. Highlight logistic issue, human resources related issue and administrative problems if any.
5. Ensure immediate reporting to agency's supervisors/MOHFW/UNICEF of grave inadequacies for immediate action (such as conducting re-activity).

Independent monitoring was organized with support from National Institute of Health and Family Welfare (NIHFW) and 6 Population Research Centres to check the field implementation of

the survey. Since monitoring only provides representative information, a sample of 13 major States were selected after dividing the country into six zones (North, South, East, West, North-East and Central). Two States were chosen from each zone.

- North - Uttar Pradesh, Rajasthan
- South – Karnataka, Andhra Pradesh
- East – Bihar, Orissa, West Bengal
- West - Maharashtra, Gujarat
- Central - Madhya Pradesh, Chhattisgarh
- North-east – Manipur, Arunachal Pradesh

In each selected State, 10 percent of PSUs were monitored and in each PSU, at least four households where the mother had delivered in the last 12 months, and mothers with children were aged 12-23 months were included for monitoring.

NIHFW in consultation with MOHFW and UNICEF developed the monitoring protocol, engaged selected staff from the PRCs as deemed necessary, and acted as a coordinator for the monitoring system.

The following states were covered by the following by the monitoring agencies:

1. Uttar Pradesh, Rajasthan – NIHFW, New Delhi
2. Karnataka, Andhra Pradesh – PRC ISEC, Bangalore
3. Bihar, Orissa – PRC Bhubaneswar
4. Maharashtra, Gujarat - PRC Baroda
5. Madhya Pradesh, Chhattisgarh – PRC Sagar
6. Manipur, Arunachal Pradesh - All India Institute of Hygiene and Public Health, Kolkata



Chapter 3

Profile of Sample Households

This chapter provides the socio-economic profile of the households where mothers with a child 12-23 months of age or recently delivered women were interviewed. In all 45,058 households were covered from all the States and Union Territories of India.

3.2 PROFILE OF SAMPLED VILLAGES

In all, information was collected from 1363 villages on maternal and child care services. Analysis of the data shows that about one-fourth of the villages had a population of less than 1,000. Most villages (52.6 percent) had 1000 – 5000 population. Around 13.4 percent had a population size of 5,001 – 10,000 and another 9.8 percent had a population of more than 10,000. Around 69 percent of the villages had 2 or more hamlets. More than a quarter of villages were less than 5 kilometres away and about half of villages were > 10 kilometres away from the nearest town. More than three-fourth of the villages were connected with all-weather roads. Among the remaining, two-thirds (67.9 percent) were connected with a *kachha* road and 32.1 percent with a motorable road (Table 3.1).

Table 3.1: Percentage distribution of sampled villages according to background characteristics

Background Characteristics	Percentage
Population Size	
<1000	24.2
1000 – 2000	23.8
2001 - 5000	28.8
5001 – 10000	13.4
10001 and above	9.8
No. of Hamlets	
0	14.6
1	16.1
2 – 5	43.3
5+	26.0
Distance from the Nearest Town (in Kms.)	
<5	28.7
5 – 10	25.5
11 – 20	27.7
20+	18.1
Villages Connected by All-Weather Roads	82.6
Type of Road (n=381)	
<i>Kachha</i>	67.9
Motorable	32.1
Number of Villages	1,363

Anganwadi Centres existed in 97.4 percent of the sampled villages. Around 55.1 percent of the villages had a health sub centre, 27.7 percent had primary health centres and around one-third of them had private clinics. Nearly 11.0 percent of the villages had private hospitals (with indoor facilities). A chemist shop was available in 41.8 percent of the villages. An ASHA was reportedly working in 76.7 percent of the villages.

About 94.6 percent villages had a primary government school and 36 percent had a middle school. A Secondary/Higher secondary school existed in around one-third of the villages.

Table 3.2: Percentage sampled villages with health and education facilities

Facilities	Percentage
Health Facilities in the Village	
<i>Anganwadi</i> Centre	97.4
Sub centre	55.1
Primary Health Centre	27.7
Private Clinic	32.4
Private Hospital	11.0
Chemist Shop	41.8
Any Facility (from those above)	98.6
Villages with an ASHA	76.7
Availability of Education Facilities	
Primary School – Government	94.6
Primary School – Private	46.5
Middle School	36.0
Secondary/Higher Secondary School	34.2
<i>Madarsa</i>	16.9
Adult Education Centre	15.8
Any Education Facility (from those above)	97.4
Number of villages	1,363

3.2 PROFILE OF SAMPLED HOUSEHOLDS

In both rural and urban areas, the number of usual members of the households was between 4 and 6 members. The mean household size was slightly higher in rural areas (6.48 persons per household) than in urban areas (6.09 persons per household). In all, 80.1 percent of households were Hindu, 14.7 percent were Muslim and 5.3 percent belonged to other religions. Comparatively more Hindus household were in rural areas (82.8 percent) than in urban areas (73.3 percent). Twenty-three percent of household heads belonged to scheduled castes, 7.8 percent to scheduled tribes, and 41.3 percent to Other Backwards Classes (OBC).

Table 3.3: Percentage distribution of the sampled households according to selected characteristics of the household

Characteristics	Rural	Urban	Total
Number of Usual Members			
< or = 4	25.4	32.2	27.3
5-6	35.0	34.1	34.9
> 6	39.6	33.7	37.8
Mean Household Size	6.48	6.09	6.37
Religious Group of Household Head			
Hinduism	82.8	73.3	80.1
Islam	12.2	21.0	14.7
Sikhism	1.5	1.5	1.5
Christianity	2.4	2.2	2.4
Other religious groups	1.1	1.9	1.4
Social Group of Household Head			
Scheduled Caste	24.2	18.7	22.6
Scheduled Tribe	9.2	4.1	7.8
Other Backward Classes	40.9	42.3	41.3
Others	25.7	34.9	28.3
Number of Households (n)	25170	19888	45058

Base = All households (HH with child 12-23 months + HH with woman recently delivered)

Note: The households selected had either at least one child between the age of 12-23 months or at least one woman who delivered during 12 months preceding the survey. Hence the estimates presented here may not be representative of the general population.

3.3 HOUSING CHARACTERISTICS

Possession of housing amenities such as improved source of drinking water, type of toilet facilities, fuel used for cooking, type of house, electricity, and household assets reflecting economic level of the household may have a positive effect on maternal and child indicators. The analysis of the data shows that for 47.7 percent of the households, the main source of drinking water was piped water, 40.9 percent used a hand pump and only 3.6 percent households depended on well water. There were large rural-urban differences in the main source of drinking water. The proportion of households using piped drinking water facility was 77.5 percent in urban areas as compared to 36.2 percent households in rural areas. Seventy three percent of the

households had an electricity connection. The proportion of households with electricity was 94.4 percent in urban areas and 65.0 percent in rural areas.

Several types of fuel were used for cooking in India. Table 3.4 shows that 46.4 percent of the selected households reported using wood as fuel for cooking, followed by liquefied petroleum gas (LPG) (26.8 percent), dung cakes (7.8 percent) and agriculture crop waste (5.1 percent). There were large rural-urban differences in use of fuel for cooking. While three-fifths of urban households relied mainly on liquid petroleum gas, around two-third of the rural households used mainly wood or dung cakes.

Sanitation plays a major role in the health of a child. 37 percent of the households used flush

toilet facility and 16.7 percent pit latrine. There was large rural-urban difference with regard to sanitation facilities. Around 58.4 percent households in rural areas were without toilets and used open field for defecation as compared to 12.4 percent households in urban areas.

Regarding the type of house, 24.8 percent of the households lived in *kachha* houses, 39.4 percent in *semi-pucca*, and 35.7 percent lived in *pucca* houses. The proportion of *pucca* houses was much higher in urban areas (56.3 percent) while the proportion of *kaccha* houses was more in rural areas (30.8 percent).

Table 3.4: Percentage distribution of households according to housing characteristics

Housing Characteristics	Rural	Urban	Total
Main Source of Drinking Water			
Improved Source			
Piped water into residence/yard/plot	17.4	53.0	27.3
Public tap	18.8	24.5	20.4
Hand pump into residence/yard/plot	23.6	8.9	19.5
Public hand pump	26.4	8.6	21.4
Protected dug well	4.0	1.8	3.4
Protected spring	0.3	0.1	0.2
Rain water	0.1	0.0	0.1
Non-Improved Source			
Unprotected dug well	6.5	1.2	5.0
Unprotected spring	0.4	0.1	0.3
Tanker truck	0.6	1.0	0.7
Surface water	0.4	0.1	0.3
Other source	1.5	0.7	1.3
Main Source of Lighting			
Electricity	65.0	94.4	73.2
Solar energy	0.3	0.2	0.3
Kerosene	33.7	5.1	25.7
Biogas	0.2	0.1	0.2
Gas	0.4	0.0	0.3
Oil	0.3	0.1	0.2
Others	0.1	0.1	0.1

Table 3.4: Contd...

Housing Characteristics	Rural	Urban	Total
Main Type of Fuel used for Cooking			
Electricity	1.5	2.9	1.9
LPG/Natural gas	14.0	60.0	26.8
Biogas	0.5	1.3	0.7
Kerosene	1.4	7.7	3.2
Coal/Lignite	0.7	3.4	1.5
Charcoal	1.2	1.8	1.4
Wood	56.9	19.3	46.4
Straw/Shrub/Grass	6.8	0.8	5.2
Agricultural crop waste	6.7	1.1	5.1
Dung cakes	10.3	1.3	7.8
Others	0.1	0.2	0.1
Type of Toilet Facility			
Flush or pour flush toilet			
Own flush toilet	19.5	50.6	28.2
Shared flush toilet	4.6	9.4	5.9
Public flush toilet	1.1	8.2	3.1
Pit Latrine			
Own pit toilet	13.0	15.7	13.7
Shared pit toilet	1.5	2.2	1.7
Public pit toilet	1.4	1.1	1.3
No facility/Bush/Field	58.4	12.4	45.6
Others	0.5	0.5	0.5
Type of house			
<i>Kachha</i>	30.8	9.4	24.8
<i>Semi-pucca</i>	41.4	34.3	39.4
<i>Pucca</i>	27.8	56.3	35.7
Number of Households	25170	19888	45058

Base = All households (HH with child 12-23 months + HH with woman recently delivered)

3.4 POSSESSION OF BANK ACCOUNT AND BELOW POVERTY LINE (BPL) CARD

Overall 52.8 percent of the households reported having a bank account/post office account. The proportion of households having a bank account/post office account was 62.1 percent in urban areas compared to 49.2 percent in rural areas. Overall 37.6 percent of households reported having a BPL card (42.5 percent in rural and 24.7 percent in urban areas) (Table 3.5).

3.5 HOUSEHOLD WEALTH INDEX

Combining household amenities, assets and durables, a wealth index is computed at the national level and divided into quintiles as mentioned in Chapter 2. Table 3.6a shows the distribution of households in different States/ Union Territories according to wealth index.

As per the survey data with respect to national economic classification, the States of Bihar (75.6 percent), Jharkhand (66.9 percent) and Orissa (55.4 percent) have the highest proportion of

households in the lowest wealth quintile. The other States with around 40-50 percent of the households in the lowest wealth quintile were Madhya Pradesh (48.4 percent), Uttar Pradesh (46.2 percent), West Bengal (43.1 percent) and Chhattisgarh (44.2 percent). Goa had the most number of households (62.0 percent) in the highest category of wealth index, followed by Chandigarh (59.6 percent), Delhi (57.1 percent) and Haryana (51.4 percent). The other Union Territories and States with around 30 percent of the households in the highest category of wealth index were Punjab (46.8 percent), Lakshadweep (35.2 percent), and Mizoram (31.5 percent).

Rural-urban break-up of the data shows that more than 50 percent of households in the rural areas of Orissa (61.4 percent), Madhya Pradesh (60.3 percent), Uttar Pradesh (56.0 percent) and West Bengal (52.7 percent) belonged to the lowest wealth quintile. On the other hand, more than 50 percent of households in the urban areas of Punjab (69.5 percent), Haryana (69.4 percent), Goa (67.2 percent), Chandigarh (61.5 percent), Delhi (57.9 percent), Jammu & Kashmir (57.2 percent), Uttarakhand (52.8 percent), Himachal Pradesh (50.6 percent) and Mizoram (50.4 percent) were in the highest category of wealth index (Table 3.6b and 3.6c).

Table 3.5: Percentage of households having savings account and BPL card

Characteristics	Rural	Urban	Total
Households having bank account/Post office account			
Yes	49.2	62.1	52.8
No	48.2	35.3	44.6
Don't know	2.7	2.6	2.7
Households having a BPL card			
Yes	42.5	24.7	37.6
No	56.0	72.6	60.6
Don't know	1.5	2.7	1.8
Number of Households (n)	25170	19888	45058

Table 3.6a: Percentage of households according to wealth index - total

States/UTs	Lowest	Second	Middle	Fourth	Highest	Number of households (n)
Andhra Pradesh	11.2	34.6	28.4	17.9	7.9	1763
Arunachal Pradesh	16.7	24.5	22.2	26.2	10.5	1127
Assam	36.9	36.4	11.6	10.3	4.8	1733
Bihar	75.6	14.7	5.0	2.9	1.8	2081
Chhattisgarh	44.2	27.5	12.4	10.6	5.3	1054
Delhi	0.8	6.8	13.7	21.5	57.1	1174
Goa	1.0	4.1	7.0	25.8	62.0	1077
Gujarat	13.1	28.7	24.4	21.9	11.9	1584
Haryana	3.0	6.2	14.9	24.6	51.4	1263
Himachal Pradesh	3.4	16.4	37.8	25.6	16.8	1102
Jammu & Kashmir	17.6	19.3	19.8	19.0	24.3	1238
Jharkhand	66.9	14.3	6.6	7.3	4.9	1262
Karnataka	27.8	28.7	21.0	16.4	6.1	1496
Kerala	3.3	12.8	30.3	28.3	25.4	1530
Madhya Pradesh	48.4	19.6	13.5	9.1	9.4	2086
Maharashtra	16.2	20.8	21.5	24.3	17.3	2024
Manipur	3.1	19.8	35.1	27.9	14.3	1224
Meghalaya	5.1	26.8	37.4	21.3	9.4	1159
Mizoram	6.2	14.5	23.9	23.9	31.5	1222
Nagaland	7.5	39.6	38.0	11.9	3.0	1278
Orissa	55.4	18.5	11.3	9.1	5.6	1791
Punjab	2.6	12.0	17.1	21.6	46.8	1149
Rajasthan	27.5	23.9	17.2	13.9	17.5	1796
Sikkim	6.9	39.3	40.9	12.5	0.4	1064
Tamil Nadu	9.9	24.9	23.4	26.7	15.1	2152
Tripura	5.7	43.6	31.5	11.9	7.4	1195
Uttar Pradesh	46.2	15.1	11.4	13.3	14.0	2217
Uttarakhand	16.3	17.2	25.3	18.9	22.3	1124
West Bengal	43.1	26.3	15.8	10.5	4.3	1649
Andaman & Nicobar Islands	5.5	19.6	24.5	32.5	17.9	348
Chandigarh	2.3	10.2	8.0	19.9	59.6	379
Dadra & Nagar Haveli	13.1	40.8	22.6	14.0	9.5	360
Daman & Diu	0.9	9.9	21.3	40.7	27.1	361
Lakshadweep	2.2	9.4	25.4	27.8	35.2	266
Puducherry	7.8	20.9	17.6	26.3	27.4	730
All India	20.0	20.0	20.0	20.0	20.0	45058

Table 3.6b: Percentage of households according to wealth index - rural

States/UTs	Lowest	Second	Middle	Fourth	Highest	Number of households (n)
Andhra Pradesh	14.4	39.7	28.8	13.2	3.9	1066
Arunachal Pradesh	20.3	29.3	22.7	21.9	5.8	677
Assam	41.1	39.2	10.1	6.8	2.8	1067
Bihar	79.9	14.2	4.2	1.5	0.3	1246
Chhattisgarh	51.6	29.1	10.5	6.7	2.0	532
Delhi	0.0	0.4	23.5	29.9	46.2	117
Goa	1.9	5.4	8.6	27.2	56.9	527
Gujarat	17.4	38.0	24.7	15.5	4.3	931
Haryana	3.7	7.2	17.9	27.1	44.1	672
Himachal Pradesh	3.2	17.5	40.9	25.4	13.1	557
Jammu & Kashmir	22.2	23.2	21.6	19.5	13.5	639
Jharkhand	79.6	13.3	3.8	2.6	0.6	739
Karnataka	37.0	33.8	19.3	8.2	1.8	876
Kerala	4.1	14.3	33.2	27.1	21.4	941
Madhya Pradesh	60.3	20.5	12.0	4.4	2.9	1249
Maharashtra	23.0	26.5	25.0	16.3	9.2	1227
Manipur	3.9	23.9	38.5	26.8	7.0	711
Meghalaya	5.8	29.3	37.4	19.0	8.5	683
Mizoram	11.8	25.4	29.0	20.9	12.8	713
Nagaland	7.2	43.8	39.5	8.3	1.2	719
Orissa	61.4	19.7	10.9	6.0	2.0	1114
Punjab	3.2	14.6	22.2	24.9	35.1	613
Rajasthan	34.2	27.1	18.2	11.4	9.2	1075
Sikkim	7.0	42.0	41.2	9.7	0.0	664
Tamil Nadu	15.9	35.2	28.0	17.6	3.3	1307
Tripura	6.6	49.1	33.2	8.2	2.9	718
Uttar Pradesh	56.0	14.9	10.3	10.6	8.3	1333
Uttarakhand	19.9	20.2	30.1	18.1	11.7	568
West Bengal	52.7	27.3	12.8	5.7	1.5	1007
Andaman & Nicobar Islands	8.2	24.8	27.0	24.2	15.8	193
Chandigarh	1.1	3.6	21.1	31.3	42.9	117
Dadra & Nagar Haveli	15.5	50.6	25.8	5.4	2.8	142
Daman & Diu	1.0	12.1	27.1	43.2	16.6	110
Lakshadweep	3.1	8.0	21.9	31.0	36.1	129
Puducherry	14.5	40.8	18.0	19.0	7.7	191
All India	30.2	26.0	21.5	13.7	8.7	25170

Table 3.6c: Percentage of households according to wealth index - urban

States/UTs	Lowest	Second	Middle	Fourth	Highest	Number of households (n)
Andhra Pradesh	2.6	20.9	27.5	30.6	18.4	697
Arunachal Pradesh	3.0	6.7	20.4	42.1	27.8	450
Assam	8.4	17.0	21.8	34.7	18.1	666
Bihar	39.4	18.5	12.0	15.4	14.7	835
Chhattisgarh	14.6	20.9	19.9	26.5	18.1	522
Delhi	0.9	7.3	13.0	20.9	57.9	1057
Goa	0.2	2.9	5.3	24.5	67.2	550
Gujarat	5.9	13.1	23.7	32.7	24.6	653
Haryana	1.2	3.6	7.5	18.3	69.4	591
Himachal Pradesh	5.3	6.9	9.1	28.0	50.6	545
Jammu & Kashmir	3.8	7.4	14.2	17.3	57.2	599
Jharkhand	22.0	18.0	16.5	23.5	20.0	523
Karnataka	9.9	19.0	24.4	32.3	14.4	620
Kerala	0.9	8.5	21.8	31.5	37.2	589
Madhya Pradesh	15.2	17.4	17.8	22.0	27.6	837
Maharashtra	6.9	13.0	16.7	35.0	28.4	797
Manipur	0.7	8.0	25.3	30.9	35.0	513
Meghalaya	2.4	16.3	37.5	30.9	12.9	476
Mizoram	0.5	3.4	18.7	26.9	50.4	509
Nagaland	8.6	19.7	30.5	29.6	11.7	559
Orissa	22.3	11.8	13.9	26.6	25.5	677
Punjab	1.2	6.9	7.2	15.1	69.5	536
Rajasthan	5.4	13.4	14.0	22.3	45.0	721
Sikkim	5.5	17.6	38.6	34.5	3.9	400
Tamil Nadu	2.3	11.8	17.6	38.3	30.1	845
Tripura	1.1	17.1	23.0	29.6	29.2	477
Uttar Pradesh	9.2	16.1	15.7	23.5	35.4	884
Uttarakhand	5.8	8.6	11.5	21.2	52.8	556
West Bengal	18.4	23.6	23.6	22.8	11.5	642
Andaman & Nicobar Islands	0.0	9.0	19.2	49.6	22.1	155
Chandigarh	2.5	10.9	6.5	18.6	61.5	262
Dadra & Nagar Haveli	4.9	8.0	11.9	43.0	32.2	218
Daman & Diu	0.6	6.1	11.2	36.4	45.7	251
Lakshadweep	1.3	11.0	29.2	24.1	34.4	137
Puducherry	4.6	11.2	17.4	29.8	37.0	539
All India	6.2	12.1	17.6	27.6	36.6	19888



Chapter 4

Routine Immunization

The vaccination of children against six preventable diseases viz., tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles has been a cornerstone of child healthcare in India. As a part of the National Health Policy, the National Immunization Programme is being implemented on a priority basis. The Expanded Programme on Immunization (EPI) was initiated by Government of India in 1978 with the objective of reducing morbidity, mortality and disabilities from these six diseases by making free vaccination services easily available to all eligible children. The Universal Immunization Programme (UIP) was introduced in 1985-86. The standard immunization schedule developed for the child immunization programme specifies the age at which each vaccine is to be administered, the number of doses to be given and the route of vaccination. Routine vaccinations received by infants and children are usually recorded on a vaccination card issued for a child.

The information on routine immunization was collected from 22,604 mothers/care givers of children aged between 12-23 months. This chapter includes information on availability of the immunization card, different vaccines received by the child, injection safety and reasons for no or partial immunization.

4.1 BACKGROUND PROFILE OF MOTHER WITH CHILD AGED 12-23 MONTHS

The analysis of the profile of children and their mothers/care givers is given in Table 4.1. The table shows that 53 percent of children surveyed for the routine immunization coverage were in the age

group 12-17 months and 47 percent in the age group 18-23 months. About 47 percent of these children were female and 53 percent were males.

Most mothers were from the younger age group; 42.5 percent were less than 25 years of age and 49.9 percent were in the age group of 25-34 years. A relatively lower percentage in the former age group might be due to the trend in rise in age at marriage and age at first conception.

Table 4.1: Percentage of children aged 12-23 months according to selected background characteristics and profile of their parents

Characteristics	Rural	Urban	Total
Child's Profile			
Child's age (in months)			
12-17	53.4	52.3	53.1
18-23	46.6	47.7	46.9
Gender			
Male	53.5	51.7	53.0
Female	46.5	48.3	47.0
Profile of Mothers			
Number of Live Births			
1	35.5	43.7	37.7
2	34.5	36.2	34.9
3	15.1	11.8	14.2
4+	14.9	8.4	13.1
Mother's Age (in years)			
15-19	4.8	3.4	4.4
20-24	38.6	37.0	38.1
25-34	48.6	53.5	49.9
35-44	6.8	5.0	6.3
45+	1.3	1.2	1.3
Mother's Education			
No education	42.5	18.4	35.8
<5 years completed	6.1	5.1	5.8
5-7 years completed	16.3	16.9	16.5
8-9 years completed	15.1	16.7	15.5
10-11 years completed	11.2	17.4	12.9
12 or more years completed	8.8	25.5	13.4
Number of children# (n)	12635	9969	22604

unweighted cases

The education level of the mothers had an important influence on routine immunization and health seeking behaviour. Table 4.1 further shows that 35.8 percent mothers were illiterate, 22.3 percent were literate but did not complete middle school and another 26.3 percent had passed high school. As expected, more urban mothers were literate (81.6 percent) than their rural counterparts (57.5 percent).

4.2 AWARENESS ABOUT IMMUNIZATION

Correct knowledge about vaccines to be given to child by one year of age, and the number of doses and age at which first dose is to be given, plays an important role in protecting children against the six diseases mentioned earlier. Table 4.2 shows that around three-fifths (58.1 percent) of the mothers knew about all the four vaccines

that need to be given to the child within the first year of life. Awareness was comparatively higher among mothers from urban areas (68.1 percent) than that of rural areas (54.3 percent). The analysis also shows that 12.2 percent mothers could not recall any one vaccine. Awareness about Hepatitis B among mothers was low compared to other routine vaccines. The main reason for the low awareness was that Hepatitis B vaccine was introduced in only 16 States and Union Territories in India.

4.3 AVAILABILITY OF IMMUNIZATION CARD

All mothers were asked whether they possessed an immunization card for their child aged 12-23 months. If the card was available, the interviewer copied the dates when the child received the dose against each vaccine. For vaccinations not

Table 4.2: Percentage of mothers/care giver of children aged 12-23 months having knowledge of vaccines

Immu- nization	Rural			Urban			Total		
	Voluntary	Prompted	DK/CS	Voluntary	Prompted	DK/CS	Voluntary	Prompted	DK/CS
BCG	37.3	44.5	18.2	48.4	40.1	11.4	40.4	43.3	16.3
DPT	23.7	46.1	30.2	36.3	43.5	20.3	27.2	45.4	27.5
Polio	25.7	49.0	25.3	39.0	44.6	16.4	29.4	47.8	22.8
Measles	22.2	42.3	35.5	31.5	45.1	23.4	24.8	43.0	32.2
Hepatitis B	12.4	26.5	61.1	22.9	38.7	38.4	15.3	29.9	54.8
Reported all 4 vaccines*	54.3			68.1			58.1		
Reported no vaccine	13.7			8.2			12.2		
Children aged 12-23 months #	12635			9969			22604		

unweighted cases

* Knowledge of four vaccines elicited were BCG, OPV, DPT and Measles

DK = don't know; CS = can't say

recorded on the card, mothers were asked and their response, i.e. whether the vaccine was given or not given, was recorded. If the mothers could not show an immunization card, they were asked whether the child had received any vaccination. If any vaccination had been received, the details about each vaccination and number of doses were asked. Table 4.3 shows that 90.8 percent of mothers reported receiving an immunization card for their children and 51.5 percent were able to show the immunization card to the interviewer.

In urban areas, 58 percent of the children's immunization information was collected from the card. The percentage of such children was 48.9 percent in rural areas.

When asked about the reasons for not receiving the immunization card, 56.5 percent of mothers reported that they were not aware of the immunization card and another 22.6 percent said that the card was not available at the health facility (Table 4.3).

Table 4.3: Percentage of children aged 12-23 months according to issue of immunization card and reasons for not receiving the card

Responses	Rural	Urban	Total
Availability of immunization card			
Yes, issued & seen	48.9	58.0	51.5
Yes, issued but not seen	40.2	37.1	39.3
Not issued	10.9	4.9	9.2
No. of children#	12635	9969	22604
Reasons for not receiving the card			
Nobody approached	13.4	19.5	14.3
Card not available at the health facility	23.8	15.3	22.6
Not aware of immunization card	56.1	58.4	56.5
Others	6.6	6.8	6.6
No. of children with card not issued#	1028	525	1553

unweighted cases

The availability of the immunization card was further analysed according to the background characteristics of the mother. The analysis of data shows that education of the mother had a positive role in safe-keeping of the card. Only about 40 percent of the illiterate mothers could show the immunization card while this

percentage rose to 64.5 percent for mothers who had passed at least higher secondary (Table 4.4). Comparatively fewer mothers from lowest wealth quintile households (43.1 percent) could show the card than mothers from household belonging to higher quintile (54.9 percent).

Table 4.4: Percentage of children aged 12-23 months who showed an immunization card to interviewers according to background characteristics

Background characteristics	Percent card issued and shown	No. of children#
Sex of child		
Male	52.2	12217
Female	50.6	10387
Residence		
Rural	48.9	12635
Urban	58.0	9969
Mother's Education		
No education	39.6	5732
<5 years completed	51.0	1258
5-7 years completed	53.4	3542
8-9 years completed	58.8	3760
10-11 years completed	59.5	3915
12 or more years completed	64.5	4397
Social Group		
Scheduled Caste	52.0	3972
Scheduled Tribe	43.2	3929
Other Backward Classes	49.4	7866
Others	56.1	6837
Wealth Index		
Lowest	43.1	4520
Second	53.2	4522
Middle	55.2	4520
Fourth	59.2	4522
Highest	54.9	4520
Total	51.5	22604

unweighted cases

The percentage of children with immunization card that was shown to the interviewer varied

considerable by State, from 24 percent in Rajasthan to 78.9 percent in Kerala (Table 4.5).

Table 4.5: Percentage of children aged 12-23 months who showed an immunization card to interviewers according to States/UT

States/UT	Rural	Urban	Total	No. of children#
Andhra Pradesh	65.5	63.4	64.9	887
Arunachal Pradesh	37.8	57.6	41.9	585
Assam	67.9	60.1	66.9	875
Bihar	42.1	51.6	43.1	1055
Chhattisgarh	41.7	64.2	46.3	522
Delhi	51.7	50.6	50.7	585
Goa	63.9	57.3	60.6	534
Gujarat	47.1	53.5	49.5	786
Haryana	39.4	50.9	42.7	634
Himachal Pradesh	61.0	54.7	60.3	547
Jammu & Kashmir	56.9	69.6	60.0	620
Jharkhand	60.8	71.1	63.1	635
Karnataka	47.8	60.1	52.0	751
Kerala	78.8	79.0	78.9	760
Madhya Pradesh	40.3	61.1	45.8	1040
Maharashtra	52.7	67.2	58.8	1020
Manipur	52.5	64.1	55.6	630
Meghalaya	67.9	47.0	63.8	586
Mizoram	72.7	83.1	77.9	624
Nagaland	43.6	51.7	45.0	641
Orissa	58.8	55.5	58.3	889
Punjab	54.3	51.1	53.2	570
Rajasthan	20.4	35.8	24.0	894
Sikkim	85.4	83.9	85.2	404
Tamil Nadu	42.8	47.3	44.8	1068
Tripura	73.7	86.5	75.9	603
Uttar Pradesh	33.1	46.7	35.9	1112
Uttarakhand	41.0	41.6	41.1	576
West Bengal	77.8	77.7	77.8	827
UTs combined	70.0	63.7	65.6	1213
Total	48.9	58.0	51.5	22604

unweighted cases

4.4 IMMUNIZATION STATUS OF THE CHILDREN

Table 4.6 shows the immunization coverage rates for each type of vaccination, according to either immunization card or the mother's recall. The analysis of vaccine-specific data indicates higher coverage of each type of vaccine in urban areas than in rural areas. According to the primary immunization schedule, the child should be fully vaccinated by the time he/she is 12 months old. Full immunization includes one dose of BCG, three injections of DPT, three doses of polio and one injection of measles.

An analysis of the data shows that at all India level the proportion of children age 12-23 months receiving full immunization coverage is 61 percent. The coverage of immunization was higher in urban areas (67.4 percent) compared to that in the rural areas (58.5 percent). About 8 percent of the children did not receive even a single vaccine and were left out of the UIP. Analysis of the Hepatitis B coverage in the States and Union Territories where the programme has been implemented shows that 70.7 percent of the children received the first injection of Hepatitis B while 58.9 percent received all 3 injections of Hepatitis B.

Table 4.6: Percentage of children aged 12-23 months who received specific vaccination

Antigens	Rural	Urban	Total
BCG	86.0	89.2	86.9
OPV0	63.3	73.2	66.0
OPV1	81.3	86.3	82.7
OPV2	76.1	82.4	77.9
OPV3	68.2	76.3	70.4
DPT1	81.3	85.8	82.6
DPT2	76.5	82.7	78.2
DPT3	69.1	77.6	71.5
Measles	72.4	78.3	74.1
Full Immunization*	58.5	67.4	61.0
Received no vaccination	8.5	5.2	7.6
Vitamin A 1st Dose	63.2	66.0	64.0
Number of 12-23 months children (n)#	12635	9969	22604
HEP B0 (Birth)**	25.1	37.0	29.2
HEP B1**	68.1	75.5	70.7
HEP B2**	63.9	72.0	66.7
HEP B3**	55.9	64.5	58.9
Number of 12-23 months children in Hepatitis B implementing States#	5658	4758	12024

unweighted cases

* Full immunization: a child receiving all these vaccines - BCG, 3 doses of DPT, 3 doses of OPV (excluding Polio 0) and 1 dose of measles

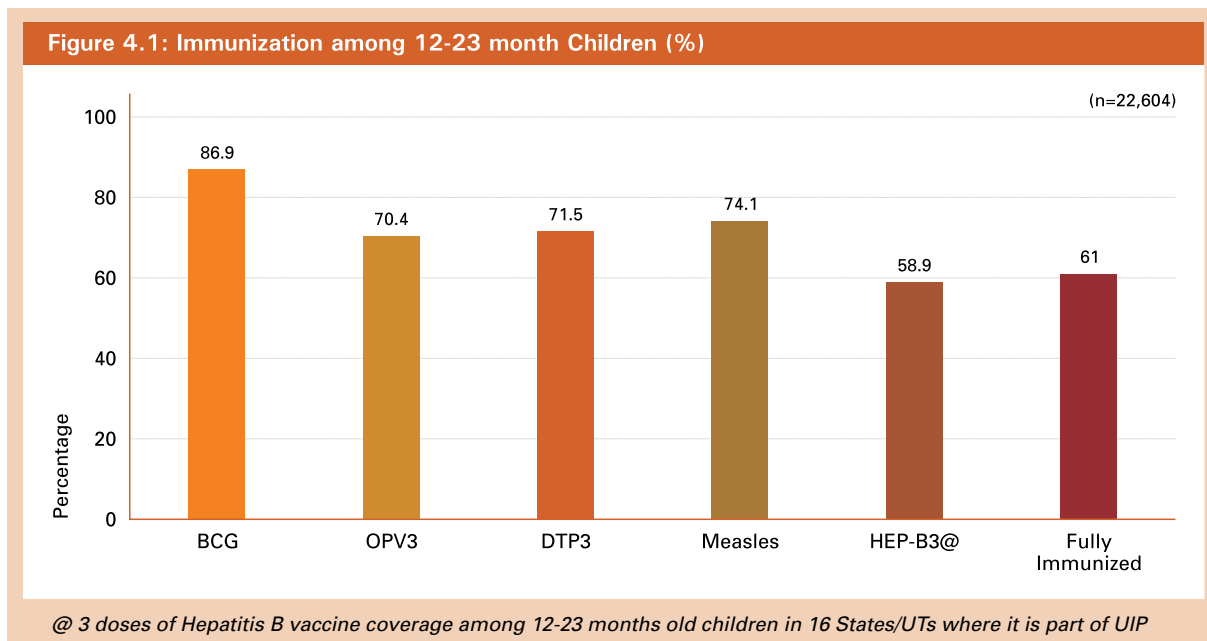
** Combined coverage given here is for States/UTs implementing Hepatitis B immunization under UIP namely Andhra Pradesh, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Sikkim, Tamil Nadu, West Bengal, Andaman & Nicobar Islands, Puducherry and Lakshadweep

The analysis according to background characteristics shows that full immunization coverage was better among lower order births i.e. among the first order births 67.4 percent children were fully immunized compared with 40.4 percent among the birth order 4 or more. The coverage of immunization varied with the gender of the child, education of the mother, social group and wealth quintile (Table 4.7). Only 45.3 percent of the children of illiterate mothers were fully immunized compared with 76.6 percent of children of mothers who had completed at least higher secondary. Analysis according to social groups showed that scheduled tribe children (49.8 percent) were less likely to be fully immunized than are scheduled castes (58.9 percent), other backward class (60.6 percent) or other classes (66.3 percent). Only 47.3 percent of children from the lowest wealth quintile were fully immunized compared with 75.5 percent of children from the households with the highest wealth quintile.

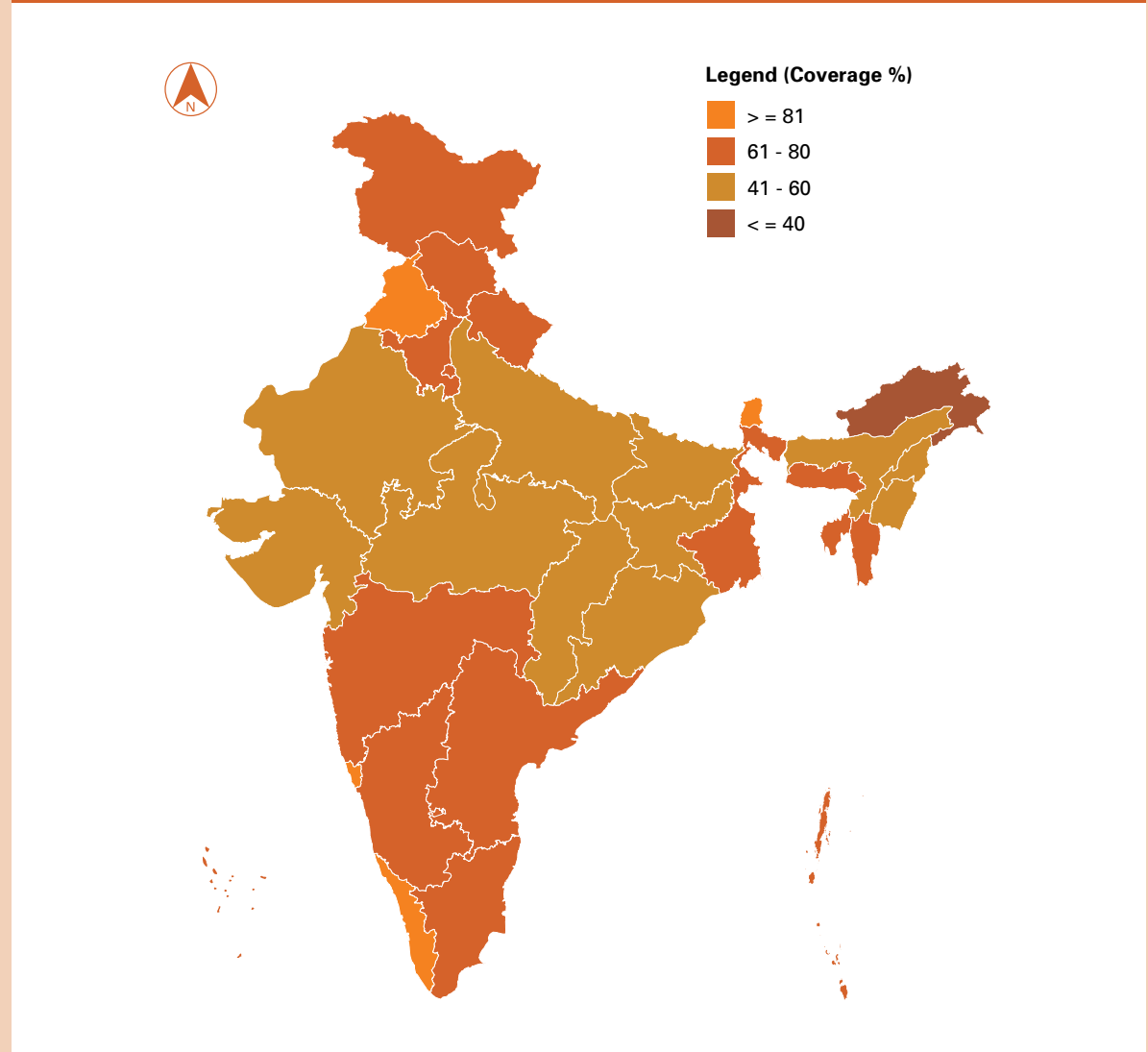
Considerable State-level variations with regard to immunization coverage persist. Table 4.8 shows immunization coverage rates for each State. The percentage of children

who were fully immunised ranged from 25 percent in Arunachal Pradesh to 88 percent in Goa. Among major States, Uttar Pradesh (41 percent), Madhya Pradesh (43 percent) Bihar (49 percent), Rajasthan (54 percent), Chhattisgarh (57 percent), Gujarat (57 percent), Assam (59 percent), Jharkhand (60 percent) and Orissa (60 percent) stood out as having less percentage of children fully immunised than the national average of 61 percent. States like Goa, Himachal Pradesh, Karnataka, Kerala, Manipur, Punjab, Tamil Nadu and Sikkim had more than 75 percent full immunization coverage. A similar trend emerged with respect to individual vaccines. The BCG vaccine coverage (87 percent) was highest among all vaccines. Measles coverage at India level was 74 percent. In almost all the States there was a drop of coverage from first dose to 3rd dose of both DPT and OPV.

High percentage of children left-out from the vaccination program (those children who received no immunization) was observed in Nagaland (31.6 percent), Arunachal Pradesh (25.7 percent), Uttar Pradesh (17.8 percent), Rajasthan (15.6 percent), Bihar (15.2 percent) and Manipur (11.9 percent).



Map 4.1: Full Immunization Coverage



Map not to scale

Table 4.7: Percentage of children age 12-23 months who received specific vaccination (according to either vaccination card or mother's report) according to selected background characteristics

Background Characteristics	Percent Vaccinated with										No. of Children #	
	BCG	OPV 0	OPV 1	OPV 2	OPV 3	DPT 1	DPT 2	DPT 3	Measles	Full Immunization		Received no vaccination
Mother's Age (in Years)												
15-19	90.3	65.0	86.5	80.9	74.2	84.0	80.5	74.1	70.0	59.8	6.9	591
20-24	89.6	68.3	86.1	82.1	74.5	86.0	82.4	75.7	78.3	65.7	5.8	7541
25-34	86.5	66.2	81.9	76.3	69.2	81.9	76.9	70.4	73.5	59.5	7.7	12713
35-44	73.7	53.9	66.9	64.1	54.5	67.0	63.1	55.0	57.2	45.5	17.3	1456
45+	80.1	56.7	72.3	71.7	61.4	75.0	73.8	63.9	69.8	56.6	13.8	303
Sex of child												
Male	86.4	66.1	82.4	77.5	70.2	82.2	77.8	71.5	74.8	61.9	7.9	12217
Female	87.5	66.0	83.0	78.3	70.7	83.0	78.6	71.4	73.2	59.9	7.2	10387
Birth Order												
1	90.9	70.0	87.5	82.8	77.1	87.2	83.9	78.3	79.8	67.4	4.4	9232
2	88.2	68.1	84.4	80.4	73.1	84.4	80.5	74.2	77.7	64.7	6.7	8159
3	82.7	59.9	78.6	72.3	63.0	78.7	72.7	64.1	68.8	53.7	10.8	3033
4+	76.8	55.6	68.6	62.8	52.2	68.4	61.8	52.7	53.6	40.4	16.0	2180
Residence												
Rural	86.0	63.3	81.3	76.1	68.2	81.3	76.5	69.1	72.4	58.5	8.5	12635
Urban	89.2	73.2	86.3	82.4	76.3	85.8	82.7	77.6	78.3	67.4	5.2	9969
Mother's Education												
No education	79.1	56.9	73.0	67.4	57.0	72.7	66.3	58.1	59.2	45.3	14.3	5732
<5 years completed	84.4	60.4	82.0	76.2	66.1	79.7	74.8	66.4	73.6	55.4	9.0	1258
5-7 years completed	89.3	68.4	85.1	79.6	72.5	84.8	80.4	73.0	79.7	64.9	5.1	3542
8-9 years completed	91.7	66.6	87.8	83.1	77.9	88.2	84.9	78.0	83.8	70.6	3.8	3760
10-11 years completed	93.6	76.5	90.9	87.6	82.7	91.1	89.1	84.8	84.8	74.1	2.1	3915
12 or more years completed	94.0	79.4	91.6	89.0	84.9	92.5	90.5	87.2	85.2	76.6	2.0	4397
Religious Group												
Hinduism	87.5	66.8	83.3	78.5	70.9	83.1	78.8	71.7	74.5	61.2	7.0	16296
Islam	82.2	59.7	76.9	71.3	63.8	77.1	71.6	65.8	68.4	55.7	12.0	2929
Sikhism	95.1	76.4	92.7	91.9	87.4	92.3	91.2	88.7	84.6	78.2	3.8	416
Christianity	86.2	63.7	83.7	80.8	73.4	85.2	82.5	77.2	79.7	65.6	5.6	2535
Other religious group	95.2	82.9	93.4	86.0	84.2	91.1	88.5	86.2	87.6	76.6	2.8	428
Social Group												
Scheduled Caste	87.1	65.9	83.3	77.5	68.6	82.5	77.2	68.9	72.4	58.9	7.8	3972
Scheduled Tribe	81.7	61.5	75.0	69.5	61.3	73.8	68.2	60.4	67.0	49.8	9.9	3929
Other Backward Classes	85.5	66.7	80.8	76.6	69.1	81.3	77.0	70.6	73.6	60.6	8.6	7866
Others	90.3	66.4	86.8	82.3	76.3	86.9	83.5	77.8	78.1	66.3	5.5	6837
BPL Status												
Have BPL Card	87.4	67.1	82.5	77.9	68.9	82.1	77.7	70.8	75.4	60.2	7.2	7146
Don't have BPL Card	86.6	65.6	83.0	78.0	71.4	82.9	78.7	72.0	73.2	61.4	7.9	15055
Wealth Index												
Lowest	79.6	56.6	74.1	67.9	57.9	73.6	66.6	57.4	61.2	47.3	13.7	4520
Second	87.7	65.7	83.5	78.2	70.0	83.4	78.7	72.6	76.9	61.6	6.3	4522
Middle	90.4	68.3	86.0	81.8	74.1	86.5	83.6	76.8	80.5	66.4	4.2	4520
Fourth	91.5	71.4	88.1	83.4	79.9	87.9	85.3	80.5	81.5	70.0	4.7	4522
Highest	93.4	80.4	91.4	89.8	85.6	91.4	90.5	86.6	83.5	75.5	2.7	4520
Total	86.9	66.0	82.7	77.9	70.4	82.6	78.2	71.5	74.1	61.0	7.6	22604

unweighted cases

Table 4.8: Percentage of children aged 12-23 months who received specific vaccination (according to either vaccination card or mother's report) according to States/UT

States/UTs	Percent Vaccinated with										Full Immunization	Received no vaccination	No. of Children #
	BCG	OPV 0	OPV 1	OPV 2	OPV 3	DPT 1	DPT 2	DPT 3	Measles				
Andhra Pradesh	98.6	83.1	96.2	92.2	75.9	97.6	96.3	89.9	90.4	68.0	0.2	887	
Arunachal Pradesh	66.0	50.2	59.1	48.1	41.3	61.6	54.6	45.0	48.2	24.8	25.7	585	
Assam	86.3	37.2	78.7	72.6	67.5	79.3	72.9	67.5	80.1	59.1	8.1	875	
Bihar	82.3	68.5	77.8	72.5	61.6	77.9	70.6	59.3	58.2	49.0	15.2	1055	
Chhattisgarh	84.8	62.8	80.0	73.7	66.5	77.2	71.6	66.5	73.1	57.3	4.8	522	
Delhi	89.1	83.3	83.2	81.7	76.9	85.9	83.1	79.5	83.3	71.5	7.3	585	
Goa	92.8	91.3	92.6	92.4	91.2	93.1	92.4	92.4	91.5	87.9	3.1	534	
Gujarat	84.9	68.6	83.3	80.0	71.0	81.4	74.1	68.0	78.0	56.6	2.6	786	
Haryana	84.4	60.9	80.6	80.1	76.9	80.3	79.2	75.0	79.9	71.7	4.3	634	
Himachal Pradesh	98.4	78.4	93.1	89.0	79.4	96.5	95.6	93.4	96.2	75.8	0.4	547	
Jammu & Kashmir	85.2	67.7	80.4	78.5	74.9	82.5	80.5	77.0	77.2	66.6	11.7	620	
Jharkhand	87.4	71.4	80.7	75.3	69.5	81.7	75.8	68.7	67.5	59.7	5.4	635	
Karnataka	97.1	85.8	95.2	93.5	87.1	95.2	94.1	88.2	89.9	78.0	1.0	751	
Kerala	94.0	78.2	91.0	90.2	89.2	90.1	90.2	88.7	86.2	81.5	1.8	760	
Madhya Pradesh	81.4	61.2	66.5	61.8	51.7	63.6	58.5	50.6	61.9	42.9	5.9	1040	
Maharashtra	94.7	90.6	93.2	88.6	84.2	92.8	91.4	85.8	91.2	78.6	2.1	1020	
Manipur	69.2	27.4	69.0	66.2	61.5	70.3	66.6	62.7	60.3	51.9	11.9	630	
Meghalaya	81.8	52.9	84.6	79.9	74.6	83.4	77.4	69.3	74.1	60.8	9.3	586	
Mizoram	87.5	53.4	85.4	81.5	78.1	82.9	80.5	77.8	81.1	73.7	7.2	624	
Nagaland	59.0	12.1	46.6	42.2	35.8	57.2	52.9	45.9	52.2	27.8	31.6	641	
Orissa	87.3	61.4	83.9	79.9	74.0	79.8	77.4	70.5	71.9	59.5	5.8	889	
Punjab	96.6	71.6	94.7	93.7	92.0	94.8	93.4	91.4	87.3	83.6	2.4	570	
Rajasthan	82.6	58.1	76.0	70.1	64.3	76.0	71.9	60.1	65.6	53.8	15.6	894	
Sikkim	97.0	83.4	95.8	86.9	86.7	95.3	86.4	85.3	87.8	85.3	3.0	404	
Tamil Nadu	88.9	66.2	87.7	83.9	79.6	85.8	83.5	78.6	88.4	77.3	3.9	1068	
Tripura	74.2	20.5	75.1	74.2	71.3	74.8	73.6	70.6	68.8	66.0	1.8	603	
Uttar Pradesh	76.4	51.9	71.3	63.0	53.9	73.4	65.7	58.1	52.8	40.9	17.8	1112	
Uttarakhand	88.3	63.1	87.3	83.7	78.9	86.8	81.5	78.1	75.8	71.5	9.1	576	
West Bengal	89.4	47.3	86.1	80.3	74.2	85.4	79.4	72.8	77.2	64.9	4.8	827	
UTs combined	92.1	81.2	85.9	84.9	81.2	88.0	86.5	82.0	83.3	71.3	3.5	1213	
Total	86.9	66.0	82.7	77.9	70.4	82.6	78.2	71.5	74.1	61.0	7.6	22604	

unweighted cases

Table 4.8a: Percentage of children age 12-23 months who received specific vaccination (according to vaccination card or mother's report) according to States/UT-Rural

States/UTs	Percent Vaccinated with										Measles	Full Immunization	Received no vaccination	No. of Children #
	BCG	OPV 0	OPV 1	OPV 2	OPV 3	DPT 1	DPT 2	DPT 3	OPV 3	DPT 1				
Andhra Pradesh	98.6	80.5	96.0	91.9	75.8	97.2	96.4	89.5	92.4	69.8	0.2	537		
Arunachal Pradesh	63.4	47.3	55.3	43.6	35.5	58.2	50.3	39.4	49.8	23.0	29.1	353		
Assam	87.0	34.1	79.2	72.9	68.9	80.7	74.1	69.5	81.2	61.0	7.9	539		
Bihar	82.2	69.0	77.8	72.7	61.1	77.8	70.7	58.6	58.0	48.7	15.1	628		
Chhattisgarh	82.5	62.7	77.7	70.3	62.2	74.2	67.8	62.1	70.3	52.7	5.7	261		
Delhi	90.0	86.9	86.9	86.6	77.1	78.8	78.6	78.6	81.5	69.0	9.7	59		
Goa	97.6	94.8	96.9	96.0	96.0	96.9	96.3	96.7	97.1	92.9	0.2	261		
Gujarat	89.0	71.9	87.0	83.5	75.1	84.5	75.1	69.0	81.2	60.5	2.4	462		
Haryana	83.2	57.3	79.2	78.7	76.0	78.6	77.3	73.0	78.7	69.9	4.4	335		
Himachal Pradesh	98.7	79.5	93.9	89.7	79.7	97.1	96.6	94.6	97.1	76.3	0.1	275		
Jammu & Kashmir	83.8	63.7	77.9	75.6	71.3	80.7	78.3	74.1	77.0	64.5	12.3	320		
Jharkhand	87.7	70.1	79.2	72.7	66.3	80.8	73.5	65.6	64.8	56.3	6.3	374		
Karnataka	96.8	86.3	94.6	92.8	86.6	94.5	93.4	86.8	89.8	78.5	1.5	433		
Kerala	94.0	81.9	90.7	89.7	88.8	89.2	89.8	88.2	87.0	81.5	1.8	473		
Madhya Pradesh	79.4	59.5	62.9	57.3	46.2	59.7	53.4	45.0	57.4	36.9	7.0	623		
Maharashtra	94.6	89.3	92.3	87.7	81.9	92.2	90.5	81.9	91.1	73.8	2.6	624		
Manipur	64.9	25.6	65.6	62.2	56.8	67.2	63.1	58.5	56.7	46.8	14.6	364		
Meghalaya	81.7	50.1	85.6	81.7	77.5	84.1	79.4	72.9	76.8	65.9	11.0	344		
Mizoram	82.7	60.1	80.4	75.6	71.6	77.6	75.3	73.3	75.6	70.1	12.3	366		
Nagaland	57.5	10.6	43.2	39.1	31.6	56.0	51.5	43.3	51.8	24.8	33.0	360		
Orissa	86.6	59.5	83.2	79.1	73.1	80.1	77.8	70.6	72.5	59.3	5.9	559		
Punjab	96.0	68.6	94.1	93.5	92.1	93.7	92.7	91.0	87.9	84.0	2.9	301		
Rajasthan	80.3	53.6	73.0	67.9	61.9	74.2	70.3	60.7	66.7	54.4	17.7	526		
Sikkim	96.6	85.1	95.6	85.5	85.5	95.5	85.4	84.9	86.5	84.9	3.4	230		
Tamil Nadu	90.7	63.2	89.1	84.2	78.3	86.5	83.9	77.7	89.9	76.1	3.5	652		
Tripura	71.5	19.3	72.9	71.6	69.1	72.4	71.1	67.9	66.3	63.7	2.0	360		
Uttar Pradesh	74.9	48.6	69.7	61.4	52.3	72.1	64.1	56.5	50.5	38.3	18.3	672		
Uttarakhand	87.0	61.1	87.2	83.4	78.4	86.9	80.8	77.6	75.1	70.3	9.7	292		
West Bengal	90.4	46.0	86.8	80.5	73.6	87.0	80.1	72.8	79.2	65.8	4.8	501		
UTs combined	92.5	81.6	85.7	85.6	83.5	86.9	85.9	82.5	83.9	73.8	4.2	444		
Total	86.0	63.3	81.3	76.1	68.2	81.3	76.5	69.1	72.4	58.5	8.5	12635		

unweighted cases

Table 4.8b: Percentage of children age 12-23 months who received specific vaccination (according to vaccination card or mother's report) according to States/UT-Urban

States/UTs	Percent Vaccinated with										Full Immunization	Received no vaccination	No. of Children #
	BCG	OPV 0	OPV 1	OPV 2	OPV 3	DPT 1	DPT 2	DPT 3	Measles				
Andhra Pradesh	98.6	89.9	96.7	92.9	76.0	98.8	96.1	90.9	85.3	63.2	0.2	350	
Arunachal Pradesh	76.0	61.2	73.7	65.3	63.1	74.6	70.7	66.3	42.3	31.8	12.7	232	
Assam	81.4	57.9	75.8	70.0	58.0	69.5	64.7	53.5	72.9	45.7	9.6	336	
Bihar	82.8	64.4	77.6	70.8	65.0	78.8	69.6	64.7	59.3	51.6	15.8	427	
Chhattisgarh	94.1	63.0	89.3	87.0	83.5	89.2	86.7	84.2	84.5	75.6	1.5	261	
Delhi	89.1	83.1	82.9	81.3	76.9	86.4	83.5	79.5	83.5	71.7	7.2	526	
Goa	87.9	87.7	88.2	88.6	86.3	89.2	88.5	88.1	85.8	82.8	5.9	273	
Gujarat	78.1	63.2	77.0	74.3	64.1	76.2	72.4	66.2	72.5	50.0	2.9	324	
Haryana	87.5	69.7	84.1	83.3	79.1	84.7	83.9	79.9	83.1	76.1	4.1	299	
Himachal Pradesh	95.5	68.7	85.6	82.6	76.3	91.0	86.6	82.6	87.9	71.2	3.8	272	
Jammu & Kashmir	89.6	79.7	88.1	87.1	86.0	88.1	87.1	85.8	78.0	72.9	9.7	300	
Jharkhand	86.3	76.0	85.8	84.0	80.7	84.8	83.6	79.7	77.1	71.6	2.6	261	
Karnataka	97.7	84.8	96.2	94.8	88.2	96.5	95.5	90.7	90.2	77.0	0.0	318	
Kerala	94.0	67.3	92.1	91.6	90.3	92.8	91.5	90.2	83.9	81.7	1.5	287	
Madhya Pradesh	86.8	65.7	76.5	74.5	67.0	74.2	72.6	66.4	74.5	59.5	2.6	417	
Maharashtra	95.0	92.3	94.4	89.8	87.4	93.7	92.5	91.1	91.2	85.1	1.3	396	
Manipur	81.0	32.4	78.4	77.3	74.4	78.7	76.4	74.2	70.5	66.3	4.3	266	
Meghalaya	81.9	64.4	80.4	72.7	62.5	80.4	69.6	54.7	63.0	39.5	2.1	242	
Mizoram	92.5	46.5	90.5	87.5	84.7	88.3	85.7	82.4	86.7	77.4	2.0	258	
Nagaland	66.1	19.5	62.8	56.9	56.0	63.0	60.0	58.2	54.3	42.5	24.8	281	
Orissa	91.4	72.3	87.9	84.6	79.4	78.4	75.6	69.9	68.1	60.9	5.4	330	
Punjab	97.9	77.4	95.9	94.0	91.9	96.8	94.8	92.3	86.1	82.9	1.3	269	
Rajasthan	90.1	72.7	85.7	77.5	72.2	82.0	77.1	58.0	61.9	51.9	8.8	368	
Sikkim	100.0	72.7	96.9	95.7	94.8	94.4	92.7	87.9	96.1	87.9	0.0	174	
Tamil Nadu	86.6	70.0	85.9	83.4	81.2	85.0	82.9	79.7	86.5	78.7	4.4	416	
Tripura	87.4	26.1	85.8	86.9	82.5	86.3	85.9	83.5	81.0	77.3	0.8	243	
Uttar Pradesh	82.2	64.5	77.4	69.4	59.8	78.4	71.8	64.3	61.8	50.8	15.9	440	
Uttarakhand	92.0	69.0	87.8	84.6	80.2	86.3	83.6	79.6	78.1	74.9	7.5	284	
West Bengal	86.8	50.5	84.2	79.8	75.6	81.2	77.4	72.6	72.1	62.7	5.1	326	
UTs combined	91.3	82.9	86.6	85.1	79.6	88.8	87.3	81.3	82.1	69.3	3.3	769	
Total	89.2	73.2	86.3	82.4	76.3	85.8	82.7	77.6	78.3	67.4	5.2	9969	

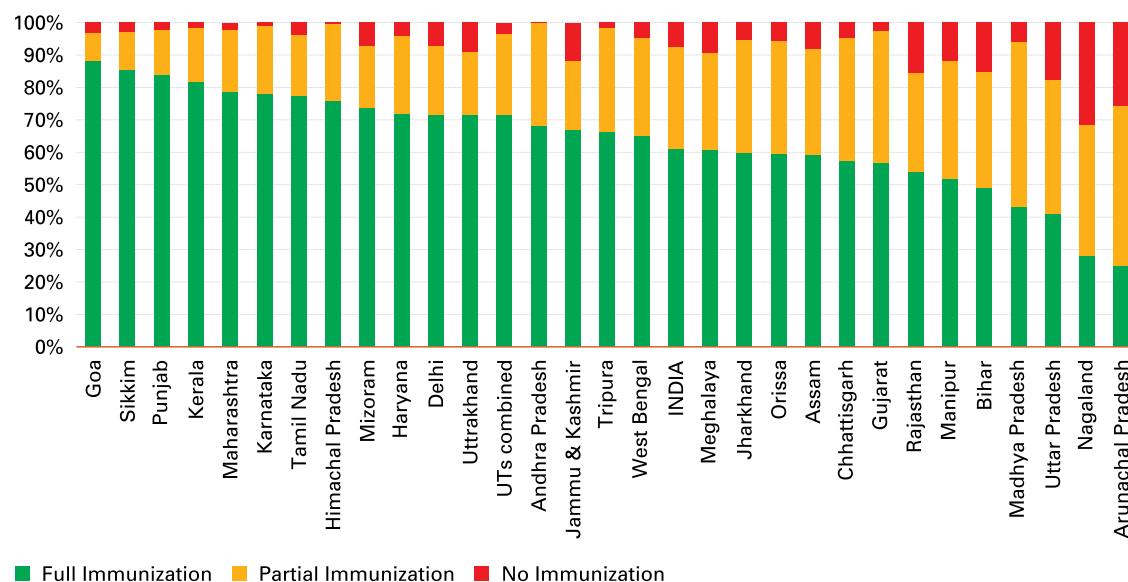
unweighted cases

Table 4.8c: Percentage of children age 12-23 months who received full immunization (according to vaccination card or mother's report) according to States and Selected Background Characteristics

States/ UTs	Percent children age 12-23 months who received full immunization										
	Residence		Social Group					Wealth Index			
	Rural	Urban	SC	ST	OBC	Other Castes	Lowest	Second	Middle	Fourth	Highest
Andhra Pradesh	69.8	63.2	69.0	73.3	69.4	57.3	64.1	68.3	64.9	69.7	73.0
Arunachal Pradesh	23.0	31.8	18.0	27.5	19.2	16.8	7.8	16.3	32.0	33.7	34.2
Assam	61.0	45.7	54.9	55.9	59.7	60.1	61.6	51.5	61.6	62.5	79.5
Bihar	48.7	51.6	40.2	36.8	52.6	54.5	44.9	57.5	66.1	60.3	80.5
Chhattisgarh	52.7	75.6	60.3	46.6	56.3	65.2	47.5	59.6	57.9	85.5	70.5
Delhi	69.0	71.7	69.9	15.7	66.2	78.4	61.5	46.3	66.5	67.9	77.7
Goa	92.9	82.8	78.9	96.8	87.1	88.1	75.6	86.0	79.9	88.8	88.8
Gujarat	60.5	50.0	54.1	50.5	58.3	57.9	59.0	57.1	47.8	60.2	65.1
Haryana	69.9	76.1	65.3	23.8	74.2	74.2	36.1	46.1	77.7	66.3	77.2
Himachal Pradesh	76.3	71.2	65.9	73.2	70.9	82.9	60.1	58.6	74.6	79.8	90.6
Jammu & Kashmir	64.5	72.9	60.6	41.1	63.4	68.9	39.0	62.7	73.5	81.0	78.0
Jharkhand	56.3	71.6	47.4	56.9	64.8	65.8	52.4	62.7	78.2	84.5	88.8
Karnataka	78.5	77.0	79.0	79.5	77.9	76.6	74.1	80.1	82.7	74.2	77.7
Kerala	81.5	81.7	89.5	89.7	80.3	80.8	94.7	79.8	83.1	78.2	82.3
Madhya Pradesh	36.9	59.5	50.5	23.8	47.3	43.0	34.9	40.1	40.0	63.6	71.9
Maharashtra	73.8	85.1	81.7	54.6	80.9	80.5	58.6	77.9	77.5	87.2	86.8
Manipur	46.8	66.3	96.6	34.5	51.5	68.0	7.1	36.9	51.3	59.3	73.9
Meghalaya	65.9	39.5	52.1	61.2	68.6	55.9	32.9	51.8	64.5	69.7	73.4
Mizoram	70.1	77.4	61.8	73.8	55.9	-	12.5	66.7	76.9	78.1	83.6
Nagaland	24.8	42.5	38.3	27.0	35.1	32.2	9.5	17.8	28.8	54.4	71.4
Orissa	59.3	60.9	60.4	46.2	64.2	71.1	52.7	64.3	76.9	69.6	67.9
Punjab	84.0	82.9	78.9	100.0	81.3	91.5	76.8	69.9	80.1	80.8	89.8
Rajasthan	54.4	51.9	41.8	43.3	56.6	61.2	36.1	52.9	57.9	70.3	66.5
Sikkim	84.9	87.9	98.0	95.0	96.2	63.3	83.1	83.4	90.4	77.6	100.0
Tamil Nadu	76.1	78.7	74.5	54.3	77.7	90.3	63.6	75.2	79.3	82.6	76.0
Tripura	63.7	77.3	49.7	65.8	79.4	70.0	61.6	63.2	63.0	78.8	80.1
Uttar Pradesh	38.3	50.8	36.0	33.2	36.2	54.2	34.2	36.6	47.9	44.1	60.1
Uttarakhand	70.3	74.9	68.8	75.5	50.7	87.8	38.9	62.0	69.7	83.5	92.2
West Bengal	65.8	62.7	66.7	58.2	60.1	64.5	58.5	70.8	68.2	63.1	85.3
UTs combined	73.8	69.3	78.7	48.6	69.5	79.4	71.4	70.6	69.1	70.1	74.2
Total	58.5	67.4	58.9	49.8	60.6	66.3	47.3	61.6	66.4	70.0	75.5

unweighted cases

Figure 4.2: Immunization Status Among 12-23 months Children by States

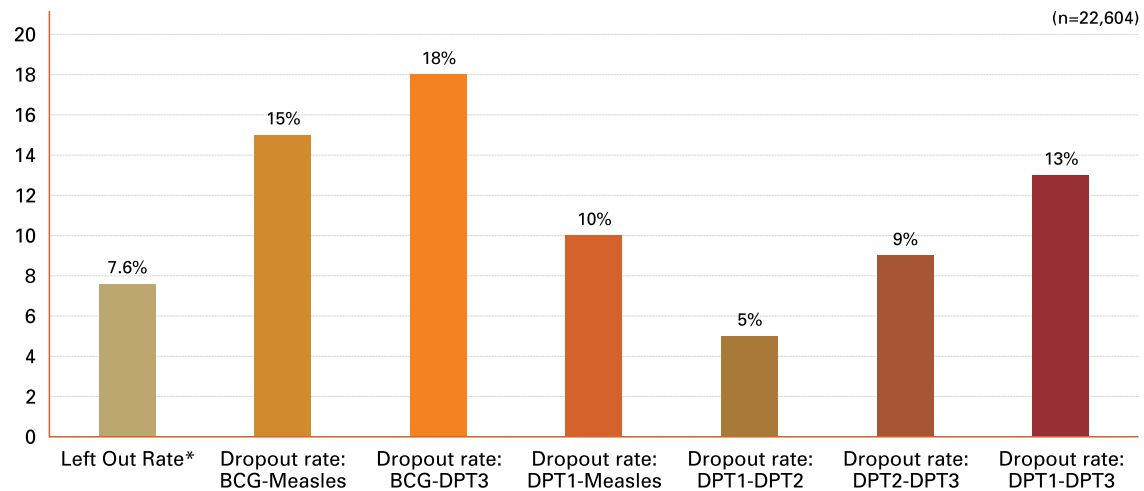


4.5 DROP - OUT RATE

In order to achieve universal immunization it is important to track children so that all vaccines can be administered. An attempt was made to analyse at what stage the children dropped out and did not get all vaccines. The BCG-measles drop-out rate was found to be 14.7 percent. The table further shows that 17.7 percent children dropped out between BCG and DPT3, 10.3 percent between DPT1 and Measles and 13.3 percent between DPT1 and DPT3. For instance, 30.2 percent children of 4 or more

birth order dropped between BCG and Measles and percentage of first birth order children was 12.2. Drop-out rate was more (15.8 percent) among rural children than that of urban children (12.2). Further drop-out rate decreases with the increase in mother's education (25.2 percent for illiterate mothers and 9.4 percent for mothers who have passed higher secondary at least) and increase in the wealth quintile from lowest (23.1 percent) to highest (10.6 percent). Drop-out rate was reported more among scheduled caste (16.9 percent) and scheduled tribe children (18.0 percent) than their counterparts from other castes (13.5 percent)

Figure 4.3: Child Immunization - Left-out and Drop-out Rates



* Percentage of children who did not receive any immunization

Table 4.9a: Child immunization drop-out rates among children aged 12-23 months according to background characteristics

Background Characteristics	Drop Out Rates						Number of Children#
	BCG-Measles	BCG-DPT3	DPT1-Measles	DPT1-DPT2	DPT2-DPT3	DPT1-DPT3	
Mother's Age (in Years)							
15-19	22.5	17.9	16.7	4.2	8.0	11.8	591
20-24	12.6	15.5	9.0	4.2	8.1	12.0	7541
25-34	15.0	18.6	10.3	6.1	8.5	14.0	12713
35-44	22.4	25.4	14.6	5.8	12.8	17.9	1456
45+	12.9	20.2	6.9	1.6	13.4	14.8	297
Sex of child							
Male	13.4	17.2	9.0	5.4	8.1	13.0	12217
Female	16.3	18.4	11.8	5.3	9.2	14.0	10387
Birth Order							
1	12.2	13.9	8.5	3.8	6.7	10.2	9230
2	11.9	15.9	7.9	4.6	7.8	12.1	8157
3	16.8	22.5	12.6	7.6	11.8	18.6	3032
4+	30.2	31.4	21.6	9.6	14.7	23.0	2179

Table 4.9a: Contd...

Background Characteristics	Drop Out Rates						Number of Children#
	BCG-Measles	BCG-DPT3	DPT1-Measles	DPT1-DPT2	DPT2-DPT3	DPT1-DPT3	
Residence							
Rural	15.8	19.7	10.9	5.9	9.7	15.0	12635
Urban	12.2	13.0	8.7	3.6	6.2	9.6	9969
Mother's Education							
No education	25.2	26.5	18.6	8.8	12.4	20.1	5732
<5 years completed	12.8	21.3	7.7	6.1	11.2	16.7	1258
5-7 years completed	10.8	18.3	6.0	5.2	9.2	13.9	3542
8-9 years completed	8.6	14.9	5.0	3.7	8.1	11.6	3760
10-11 years completed	9.4	9.4	6.9	2.2	4.8	6.9	3915
12 or more years completed	9.4	7.2	7.9	2.2	3.6	5.7	4397
Religious Group							
Hinduism	14.9	18.1	10.3	5.2	9.0	13.7	16296
Islam	16.8	20.0	11.3	7.1	8.1	14.7	2929
Sikhism	11.0	6.7	8.3	1.2	2.7	3.9	416
Christianity	7.5	10.4	6.5	3.2	6.4	9.4	2535
Other religious group	8.0	9.5	3.8	2.9	2.6	5.4	428
Social Group							
Scheduled Caste	16.9	20.9	12.2	6.4	10.8	16.5	3972
Scheduled Tribe	18.0	26.1	9.2	7.6	11.4	18.2	3929
Other Backward Classes	13.9	17.4	9.5	5.3	8.3	13.2	7866
Others	13.5	13.8	10.1	3.9	6.8	10.5	6837
BPL Status							
Have BPL Card	13.7	19.0	8.2	5.4	8.9	13.8	7146
Don't have BPL Card	15.5	16.9	11.7	5.1	8.5	13.1	15055
Wealth Index							
Lowest	23.1	27.9	16.8	9.5	13.8	22.0	4520
Second	12.3	17.2	7.8	5.6	7.8	12.9	4522
Middle	11.0	15.0	6.9	3.4	8.1	11.2	4520
Fourth	10.9	12.0	7.3	3.0	5.6	8.4	4522
Highest	10.6	7.3	8.6	1.0	4.3	5.3	4520
Total	14.7	17.7	10.3	5.3	8.6	13.4	22604

Calculation of drop-out rate: for example, BCG-DPT3 drop-out rate was calculated thus –
 (BCG coverage minus DPT3 coverage) divided by BCG coverage
 # unweighted cases

The analysis further shows that State differentials existed in the drop-out rates at all stages (Table 4.9b). Higher drop-out rate from BCG to Measles was observed in States such as Uttar Pradesh (30.9 percent), Bihar (29.3 percent), Arunachal Pradesh (27.0 percent), Madhya

Pradesh (24.0 percent), Jharkhand (22.8 percent) and Rajasthan (20.6 percent). The drop-out rates were low in Goa (1.3 percent), Himachal Pradesh (2.2 percent), Maharashtra (3.7 percent), Sikkim (0.1 percent) and Tamil Nadu (0.6 percent).

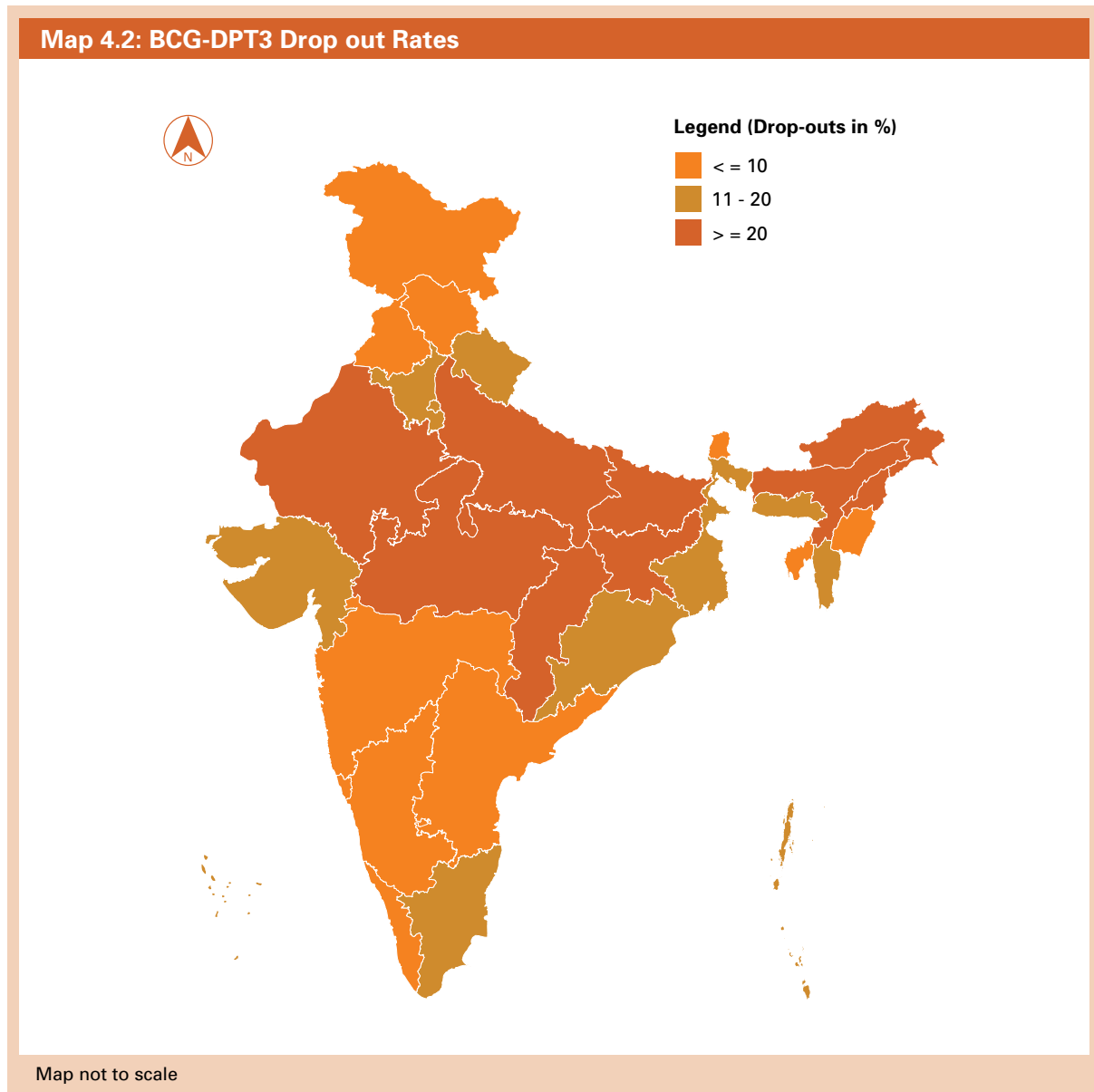


Table 4.9b: Child immunization drop-out rates among children aged 12-23 months according to States/UT

States/UTs	Child Immunization-Drop Out Rates						Number of Children#
	BCG-Measles	BCG-DPT3	DPT1-Measles	DPT1-DPT2	DPT2-DPT3	DPT1-DPT3	
Andhra Pradesh	8.3	8.8	7.4	1.3	6.6	7.9	887
Arunachal Pradesh	27.0	31.8	21.8	11.4	17.6	26.9	585
Assam	7.2	21.8	0.0	8.1	7.4	14.9	875
Bihar	29.3	27.9	25.3	9.4	16.0	23.9	1055
Chhattisgarh	13.8	21.6	5.3	7.3	7.1	13.9	522
Delhi	6.5	10.8	3.0	3.3	4.3	7.5	585
Goa	1.4	0.4	1.7	0.8	0.0	0.8	534
Gujarat	8.1	19.9	4.2	9.0	8.2	16.5	786
Haryana	5.3	11.1	0.5	1.4	5.3	6.6	634
Himachal Pradesh	2.2	5.1	0.3	0.9	2.3	3.2	547
Jammu & Kashmir	9.4	9.6	6.4	2.4	4.3	6.7	620
Jharkhand	22.8	21.4	17.4	7.2	9.4	15.9	635
Karnataka	7.4	9.2	5.6	1.2	6.3	7.4	751
Kerala	8.3	5.6	4.3	0.0	1.7	1.6	760
Madhya Pradesh	24.0	37.8	2.7	8.0	13.5	20.4	1040
Maharashtra	3.7	9.4	1.7	1.5	6.1	7.5	1020
Manipur	12.9	9.4	14.2	5.3	5.9	10.8	630
Meghalaya	9.4	15.3	11.2	7.2	10.5	16.9	586
Mizoram	7.3	11.1	2.2	2.9	3.4	6.2	624
Nagaland	11.5	22.2	8.7	7.5	13.2	19.8	641
Orissa	17.6	19.2	9.9	3.0	8.9	11.7	889
Punjab	9.6	5.4	7.9	1.5	2.1	3.6	570
Rajasthan	20.6	27.2	13.7	5.4	16.4	20.9	894
Sikkim	0.1	0.1	0.1	0.1	0.0	0.1	404
Tamil Nadu	0.6	11.6	0.0	2.7	5.9	8.4	1068
Tripura	7.3	4.9	8.0	1.6	4.1	5.6	603
Uttar Pradesh	30.9	24.0	28.1	10.5	11.6	20.8	1112
Uttarakhand	14.2	11.6	12.7	6.1	4.2	10.0	576
West Bengal	13.6	18.6	9.6	7.0	8.3	14.8	827
UTs combined	9.6	11.0	5.3	1.7	5.2	6.8	1213
Total	14.7	17.7	10.3	5.3	8.6	13.4	22604

Calculation of drop-out rate: for example, BCG-DPT3 drop-out rate was calculated thus – (BCG coverage minus DPT3 coverage) divided by BCG coverage
unweighted cases

4.6 COVERAGE OF BOOSTER DOSE OF DPT AND OPV

According to the immunization schedule, a child should get a DPT and OPV booster doses between the ages of 16-24 months. Hence the coverage of children by booster dose of DPT and OPV was analysed among children aged 18-23 months. Table 4.10 shows that 41.4 percent of the children received booster dose of DPT and 37.9 percent received booster dose of OPV. The proportion of children receiving booster dose of DPT and OPV was more in urban than in rural areas.

Further there were differentials with respect to the education of the mother and economic class, and in the proportion of children receiving booster dose of DPT and OPV. Slightly more male children received booster doses than female children. Mother's education level and wealth index of the household had a positive impact. Table 4.11a shows that the proportion of children receiving booster doses increased with the rise in the education level of the mothers. Booster immunization showed enhanced coverage from households with lowest wealth index to households with the highest index.

Table 4.10: Percentage of children age 18-23 months who received booster dose of DPT and OPV

Antigens	Rural	Urban	Total
DPT Booster	37.2	52.1	41.4
OPV Booster	33.4	49.2	37.9
Number of 18-23 months children (n)#	5866	4617	10483

unweighted cases

Table 4.11a: Percentage of children aged 18-23 months who received OPV/DPT booster doses according to selected background characteristics

Background Characteristics	Received DPT booster dose	Received OPV booster dose	Number of 18-23 month old children #
Sex of child			
Male	41.9	38.6	5736
Female	40.8	37.1	4747
Age of the child (months)			
18	37.4	32.1	1969
19	41.6	37.9	1597
20	39.0	35.1	1631
21	42.9	40.6	1451
22	46.6	42.2	1484
23	41.0	39.2	2351
Birth Order			
1	48.6	44.6	4218
2	45.5	41.3	3791
3	32.8	31.0	1444
4+	20.5	18.4	1030

Table 4.11a: Contd...

Background Characteristics	Received DPT booster dose	Received OPV booster dose	Number of 18-23 month old children #
Residence			
Rural	37.2	33.4	5866
Urban	52.1	49.2	4617
Mother's Education			
No education	25.9	23.7	2593
<5 years completed	40.5	36.4	593
5-7 years completed	45.6	42.0	1624
8-9 years completed	48.0	43.4	1713
10-11 years completed	52.1	48.0	1831
12 or more years completed	57.3	52.7	2129
Religious group			
Hinduism	42.0	38.2	7597
Islam	35.5	33.7	1374
Sikhism	58.0	50.8	204
Christianity	42.6	39.6	1099
Other religious group	41.1	41.0	209
Social group			
Scheduled Caste	39.3	35.8	1866
Scheduled Tribe	29.3	26.4	1718
Other Backward Classes	41.9	38.8	3651
Others	45.3	41.3	3248
BPL status			
Have BPL card	41.6	37.2	3285
Don't have BPL card	41.3	38.3	7198
Wealth Index			
Lowest	25.1	22.9	2093
Second	44.0	40.2	2017
Middle	53.1	47.8	2042
Fourth	47.9	45.9	2145
Highest	53.3	47.5	2186
Total	41.4	37.9	10483

unweighted cases

There were wide State differentials with regard to the percentage of children who received booster doses of DTP and OPV. Around 90 percent of the children aged 18-23 months in Goa and 75 percent in Tamil Nadu received booster dose of DTP and OPV. The percentage of such children was between 50 and 70 percent in the States of Himachal Pradesh, Andhra

Pradesh, Delhi, Karnataka, Kerala, Mizoram, Punjab, Sikkim and Union Territories. The lowest coverage was found in the States of Assam, Bihar, Haryana, Jharkhand, Meghalaya, Nagaland, Orissa, Rajasthan and Uttar Pradesh, where less than 30 percent of the children aged 18-23 months had received booster doses of DTP and OPV (Table 4.11b).

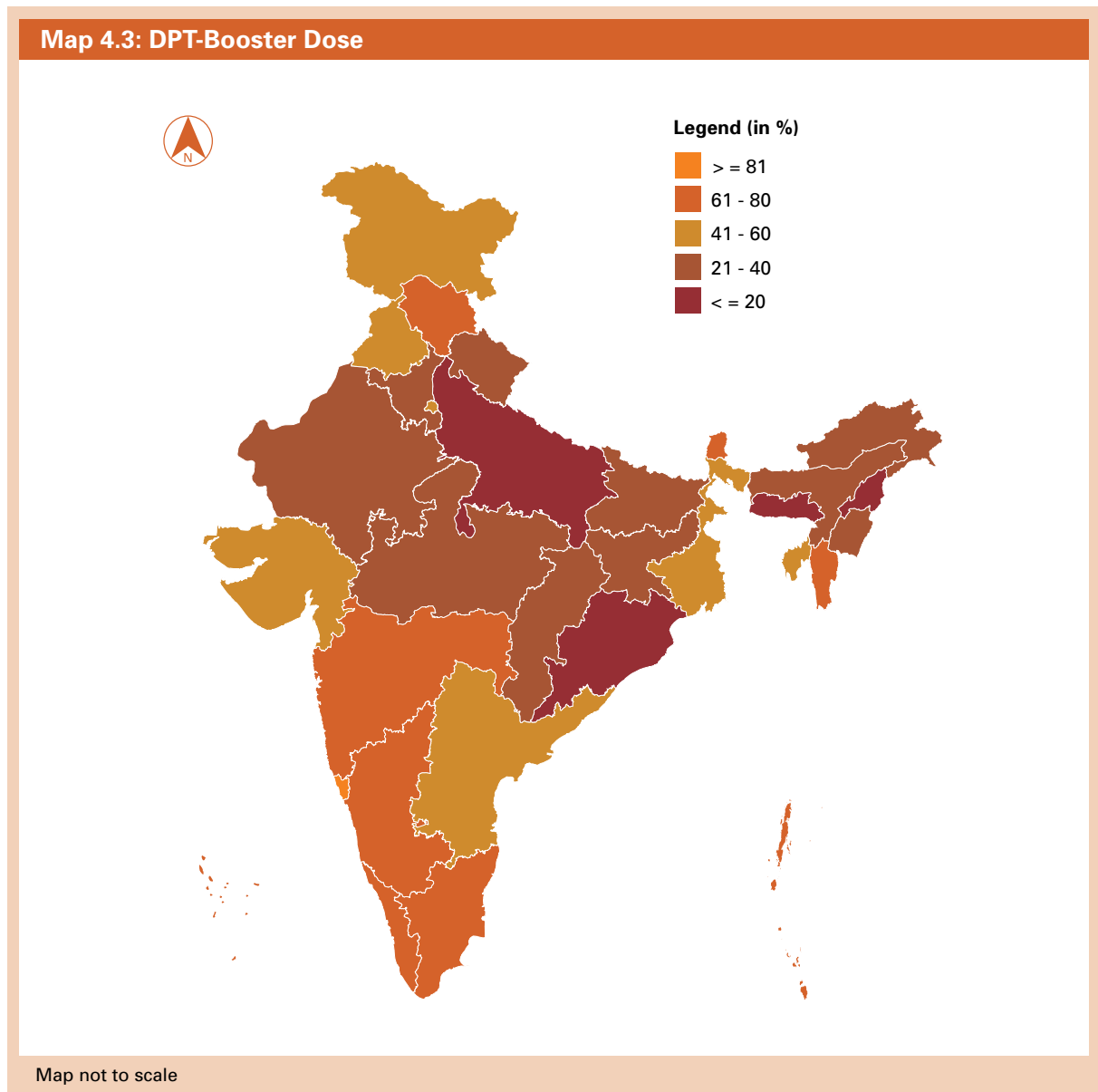


Table 4.11b: Percentage of children aged 18-23 months who received OPV/DPT booster doses according to States/UT

States/UT	Received DPT booster dose	Received OPV booster dose	Number of 18-23 months old children #
Andhra Pradesh	58.3	45.1	359
Arunachal Pradesh	35.9	32.7	192
Assam	27.7	27.5	424
Bihar	26.0	24.1	460
Chhattisgarh	37.4	34.8	238
Delhi	56.1	50.1	231
Goa	89.1	89.9	274
Gujarat	43.7	41.8	360
Haryana	27.9	23.7	269
Himachal Pradesh	73.2	69.2	288
Jammu & Kashmir	42.0	38.7	265
Jharkhand	22.4	21.2	321
Karnataka	68.4	62.7	364
Kerala	62.4	53.3	397
Madhya Pradesh	29.8	26.9	454
Maharashtra	60.6	58.7	529
Manipur	39.9	39.1	296
Meghalaya	16.4	14.8	252
Mizoram	67.1	67.4	298
Nagaland	13.6	19.5	269
Orissa.	15.9	14.9	466
Punjab	53.8	46.0	312
Rajasthan	25.1	17.9	381
Sikkim	63.7	65.7	175
Tamil Nadu	78.9	75.6	485
Tripura	50.7	51.2	281
Uttar Pradesh	17.0	16.1	522
Uttarakhand	37.1	35.6	282
West Bengal	46.7	44.8	402
UTs combined	72.3	68.4	586
Total	41.4	37.9	10483

unweighted cases

4.7 HEPATITIS B COVERAGE

Government of India is implementing Hepatitis B (Hep B) immunization under UIP in ten States and three Union Territories. These are Andhra Pradesh, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Tamil Nadu, West Bengal, Andaman & Nicobar Islands, Puducherry and Lakshadweep. Additionally, private doctors/nursing homes/private hospitals and some State governments (Delhi, Goa and Sikkim) are also implementing this programme. A child is given a birth dose of Hep B along with BCG and OPV0. Three injections of Hep B are also given along with DPT vaccines at the 1.5, 2.5 and 3.5 months of age. The analysis for Hepatitis B was done by segregating the States where the programme is being implemented from those where it was not. Description is focussed on States/UTs implementing the Hep B vaccination under UIP. The proportion of children who received the 1st dose was 70.7 percent, a figure that declines to 58.9 percent for the 3rd dose. There were urban-rural differentials in the coverage by Hepatitis B as 64.5 percent children received the 3rd dose of Hep B in urban areas compared with 55.9 percent in rural areas.

Table 4.12 further shows that a positive relationship existed between mother's education and children vaccinated against

Hep B. About 47 percent of the children of illiterate mothers received all the three doses of Hepatitis B vaccine. The proportion of such children increased to 74.2 percent for children whose mother had passed the higher secondary. Hepatitis B coverage also increased with the increase in wealth quintile from lowest to highest. For instance, 40.5 percent of the children from households with lowest wealth quintile received all the three doses of hepatitis vaccine and this percentage increased to 70.6 percent for the highest wealth quintile households. Comparatively less scheduled tribe children (42.7 percent) and scheduled caste (57.1 percent) were protected against Hepatitis B as compared to those from other backward class group (64.2 percent).

Hepatitis B coverage of children according to different States and Union Territories where Hepatitis has been implemented and not implemented has been shown in Table 4.13. The analysis showed wide variation of coverage among the States. In Goa, Kerala and Punjab more than 80 percent of children had been vaccinated with the third dose of Hep. B. In Madhya Pradesh Hep B3 coverage was below 30 percent. Among the non-implementing States, e.g. in Mizoram, Gujarat and Haryana, reasonable coverage of the third dose of Hep B was achieved primarily from private sector providers.

Table 4.12: Percentage of children age 12-23 months who received Hepatitis B vaccination (according to either vaccination card or mother) in Hepatitis B implementing States according to selected background characteristics

Background Characteristics	Rural			Urban			Total			No. of Children*# (n)			
	Hep B (Birth)	Hep B1	Hep B2	Hep B3	Hep B (Birth)	Hep B1	Hep B2	Hep B3	Hep B (Birth)		Hep B1	Hep B2	Hep B3
Mother's age (in years)													
15-19	18.2	75.8	66.8	52.4	31.1	75.2	69.3	66.3	21.9	75.6	67.5	56.3	286
20-24	22.8	69.8	66.1	57.2	34.4	76.6	72.5	62.9	26.5	72.0	68.2	59.0	3884
25-34	28.2	66.5	62.4	55.6	38.9	74.9	71.6	65.4	32.2	69.6	65.8	59.2	5617
35-44	25.5	53.9	49.5	46.9	42.3	71.3	71.8	64.7	31.8	60.4	57.8	53.5	472
45+	19.5	70.1	65.9	61.9	43.7	81.2	81.0	75.9	28.8	74.5	71.9	67.4	157
Sex of child													
Male	25.2	67.3	63.7	56.0	35.6	75.6	72.4	64.3	28.7	70.1	66.7	58.8	5614
Female	24.9	69.1	64.2	55.7	38.4	75.4	71.6	64.7	29.6	71.3	66.8	58.9	4802
Birth Order													
1	27.4	71.9	67.9	59.0	36.2	76.7	73.3	67.2	30.7	73.7	69.9	62.1	4653
2	25.3	70.9	67.1	58.4	41.6	77.3	74.0	65.7	30.8	73.0	69.4	60.9	4114
3	22.2	59.8	54.4	48.1	30.6	74.4	70.2	56.7	24.6	64.0	58.9	50.5	1124
4+	14.8	45.5	40.3	37.1	21.5	51.6	46.6	44.7	16.6	47.1	42.0	39.1	525
Mother's Education													
No education	18.3	59.0	54.8	45.9	29.5	65.9	61.3	50.3	20.7	60.5	56.1	46.9	1899
<5 years complete	16.8	58.7	54.0	45.4	18.1	57.5	53.0	40.1	17.1	58.4	53.7	43.9	604
5-7 years complete	19.0	67.4	63.3	52.1	30.6	73.6	71.0	63.4	22.6	69.3	65.7	55.6	1729
8-9 years complete	23.5	68.3	63.3	54.3	36.5	78.2	74.1	67.6	27.9	71.7	67.0	58.8	1759
10-11 years complete	38.9	79.6	75.5	70.3	39.4	78.5	74.8	67.5	39.1	79.2	75.2	69.2	2091
12 or more years complete	40.6	80.7	78.0	75.2	47.3	81.5	78.7	73.3	44.2	81.2	78.4	74.2	2334
Religious Group													
Hinduism	24.4	68.8	64.2	55.7	36.5	77.0	73.3	65.9	28.4	71.5	67.1	59.0	7878
Islam	24.2	58.6	54.4	47.7	37.2	67.1	63.3	55.3	30.0	62.4	58.4	51.1	1593
Sikhism	26.2	87.4	85.7	78.3	37.2	94.7	95.3	90.9	29.2	89.4	88.3	81.7	337
Christianity	46.3	91.9	86.9	83.3	44.4	87.0	84.6	71.6	45.7	90.4	86.3	79.6	466
Other religious group	22.5	32.3	45.4	39.0	39.4	69.1	68.1	63.5	30.0	48.7	55.5	49.9	142
Social Group													
Scheduled Caste	23.7	69.9	66.1	55.7	34.0	73.6	69.7	61.0	26.4	70.9	67.0	57.1	2134
Scheduled Tribe	18.7	53.8	50.2	41.0	28.3	69.8	69.9	50.1	20.5	56.8	54.0	42.7	793
Other Backward Classes	29.3	73.5	69.2	61.9	40.4	77.2	74.3	67.7	33.6	74.9	71.2	64.2	4078
Others	23.0	64.2	59.6	53.1	35.2	75.1	70.5	64.0	27.8	68.4	63.8	57.3	3411
BPL Status													
Have BPL Card	24.4	71.8	68.4	58.3	34.1	75.9	71.5	62.2	26.7	72.8	69.2	59.2	3628
Don't have BPL Card	25.8	64.5	59.5	53.5	38.1	75.9	72.9	66.2	31.0	69.3	65.1	58.9	6543
Wealth Index													
Lowest	17.5	52.2	47.5	40.9	26.7	52.9	47.0	37.5	18.4	52.3	47.4	40.5	1505
Second	23.0	73.7	68.4	58.3	29.3	65.1	61.9	53.1	24.4	71.7	66.9	57.0	2029
Middle	28.0	71.5	68.3	60.5	35.5	79.3	75.4	66.4	30.3	73.9	70.5	62.3	2197
Fourth	32.6	71.9	73.8	65.2	36.9	79.5	76.2	70.2	34.8	78.7	75.2	67.8	2298
Highest	39.2	79.7	78.7	73.3	44.3	79.5	76.1	69.3	42.6	79.6	77.0	70.6	2387
Total	25.1	68.1	63.9	55.9	37.0	75.5	72.0	64.5	29.2	70.7	66.7	58.9	12024

* Number of children in States implementing Hep B immunization under UIP
unweighted cases

Table 4.13: Percentage of children age 12-23 months who received Hepatitis B vaccine according to States/UT

States/UTs	Rural			Urban			Total			No. of Children*# (n)			
	Hep B (Birth)	Hep B1	Hep B2	Hep B3	Hep B (Birth)	Hep B1	Hep B2	Hep B3	Hep B1		Hep B2	Hep B3	
Hep B implementing States/UTs under UJP Programme													
Andhra Pradesh	10.9	93.9	91.4	71.4	21.3	95.7	88.2	69.2	13.8	94.4	90.5	70.8	887
Delhi	59.5	73.0	68.8	62.3	63.4	72.8	68.5	64.6	63.1	72.8	68.5	64.5	585
Goa	46.0	79.5	84.7	84.5	44.3	74.0	78.0	78.0	45.2	76.7	81.4	81.3	534
Himachal Pradesh	48.9	77.1	74.2	71.9	30.9	71.6	67.8	62.6	47.1	76.5	73.5	71.0	547
Jammu & Kashmir	43.1	62.3	59.6	55.0	58.4	76.8	73.2	71.9	46.9	65.9	63.0	59.2	620
Karnataka	49.6	88.9	85.2	76.6	53.6	90.8	86.8	75.0	51.0	89.6	85.7	76.1	751
Kerala	69.0	86.7	83.4	82.1	66.7	83.5	82.6	79.6	68.4	85.9	83.2	81.5	760
Madhya Pradesh	9.7	25.2	22.4	19.8	19.7	44.4	42.8	36.7	12.3	30.3	27.8	24.3	1040
Maharashtra	15.1	60.8	53.8	46.7	35.3	77.4	74.7	68.6	23.7	67.8	62.7	56.0	1020
Punjab	32.8	86.1	84.3	81.1	33.1	90.3	86.9	84.7	32.9	87.5	85.2	82.3	570
Sikkim	1.1	91.7	81.6	79.6	2.9	86.2	83.9	77.2	1.4	90.9	81.9	79.3	404
Tamil Nadu	47.6	73.2	68.6	60.5	45.0	72.7	69.8	66.9	46.4	73.0	69.1	63.3	1068
West Bengal	5.9	54.8	49.2	42.3	16.4	59.9	56.0	46.7	8.8	56.3	51.1	43.6	827
UTs combined*	46.6	75.5	72.3	68.2	47.8	74.5	71.8	63.1	47.3	75.1	72.1	65.5	672
Total	25.1	68.1	63.9	55.9	37.0	75.5	72.0	64.5	29.2	70.7	66.7	58.9	10416
States/UTs not implementing Hep B													
Arunachal Pradesh	8.0	11.1	6.6	5.9	13.7	15.3	11.1	10.4	9.2	12.0	7.5	6.8	585
Assam	3.9	8.1	5.4	5.4	11.9	21.2	17.0	15.7	4.9	9.8	6.9	6.7	875
Bihar	1.9	6.4	4.7	2.8	9.3	15.7	12.6	11.7	2.7	7.4	5.5	3.7	1055
Chhattisgarh	15.5	6.1	4.9	5.6	23.9	32.9	21.4	20.6	17.2	11.5	8.2	8.6	522
Gujarat	26.1	43.3	31.4	27.3	27.3	40.0	34.8	31.1	26.6	42.1	32.7	28.7	786
Haryana	25.4	28.4	26.9	26.4	35.5	46.1	42.8	38.3	28.3	33.5	31.5	29.8	634
Jharkhand	2.9	5.5	4.4	3.6	8.9	15.3	15.0	11.2	4.3	7.6	6.8	5.3	635
Manipur	13.3	21.4	13.9	10.3	10.8	21.5	19.7	12.3	12.6	21.4	15.4	10.9	631
Meghalaya	3.8	9.9	2.5	2.4	10.6	35.3	26.0	20.4	5.1	14.9	7.1	5.9	586
Mizoram	52.4	54.7	54.6	54.0	38.6	42.9	41.7	40.2	45.6	48.8	48.2	47.2	624
Nagaland	1.3	16.8	14.8	10.1	.6	23.6	21.0	20.5	1.2	18.0	15.9	11.9	641
Orissa	8.1	14.2	13.3	11.3	16.8	37.0	33.9	27.0	9.4	17.6	16.4	13.7	889
Rajasthan	2.7	10.4	6.5	5.3	23.3	18.9	11.9	8.2	7.5	12.4	7.8	6.0	894
Tripura	-	1.2	.7	1.3	4.0	7.8	2.6	2.0	.7	2.3	1.0	1.4	603
Uttar Pradesh	6.8	11.7	5.0	6.2	14.9	25.1	22.2	17.7	8.5	14.5	8.6	8.6	1112
Uttarakhand	9.3	16.7	13.2	9.9	28.0	36.2	28.4	22.5	14.1	21.7	17.1	13.1	576
UTs combined**	8.0	28.5	24.0	24.4	14.8	53.2	47.8	42.0	12.7	42.5	36.1	34.3	541
Total	10.4	16.4	12.7	11.5	17.2	28.8	24.3	20.8	11.7	19.1	15.2	13.5	12189

* UTs: Andaman & Nicobar Islands, Puducherry & Lakshadweep

** UTs: Dadra & Nagar Haveli, Daman & Diu and Chandigarh

unweighted cases

4.8 PLACE OF IMMUNIZATION

The analysis of the data shows that public sector was the primary service provider for childhood vaccinations (89.8 percent). Nearly 53 percent of the children received vaccination from outreach vaccination sites such as saub-centre (18.9 percent), *Anganwadi* centre (25.6 percent) and other places in villages while remaining received vaccinations from PHC/CHC/Govt. Hospital. Private sector contributed 8.7 percent in the immunization programme (Table 4.14). However in urban areas, 43.6 percent children received vaccination from Government/Municipal Hospital and another 21.1 percent from private hospital/clinic. Private sector contributed to larger proportion of childhood immunization in urban areas (21.1 percent) than in rural areas. About 34 percent children from highest wealth quintile received vaccination from private hospital/clinic.

State variations in the percentage of children who received vaccinations in government and private sector health facilities are shown in Tables 4.15a-c. Comparatively more children in Delhi (28.3

percent), Kerala (21 percent) and Tamil Nadu (20 percent) went to private sector for immunization. About 50 percent or more children aged 12-23 months in Bihar (49.4 percent) Chhattisgarh (73.2 percent), Jharkhand (64.9 percent), Madhya Pradesh (55.7 percent) and Orissa (52.8 percent) received vaccinations at the *Anganwadi* centre.

Table 4.15b indicates that in many States high proportion of children from rural areas come to Government/Municipal hospitals for vaccination. For instance, 38 percent children in Andhra Pradesh, 55.1 percent in Arunachal Pradesh, 33 percent in Delhi, 64.1 percent in Kerala, 50.2 percent in Manipur, 33.8 percent in Punjab, 37.9 percent in Sikkim, 60.1 percent in Tamil Nadu and 65.1 percent in Tripura went to Government/Municipal hospitals for vaccination. Strengthening outreach immunization services will further boost the immunization coverage in rural and hard to reach areas.

In urban areas of almost all the States, the major source of vaccination was Government/Municipal hospital followed by Private hospital/clinic (Table 4.15c).

Table 4.14: Percentage of children aged 12-23 months who were partially or fully immunized by place of immunization, according to selected background characteristics

Background characteristics	Govt./Municipal Hospital	PHC/CHC	Private Hosp./Clinic	Out reach				No. of children immunised with at least one vaccine#
				Sub Centre	AWC	Some Place in Village)	Others	
Mother's Age (in Years)								
15-19	15.3	9.3	9.8	33.7	22.0	6.5	3.5	548
20-24	27.1	11.5	8.7	19.6	25.8	4.2	3.2	7209
25-34	23.5	13.2	11.6	17.3	25.5	3.9	5.1	11885
35-44	17.1	15.5	8.5	18.7	26.4	6.3	7.5	1280
45+	23.7	12.5	7.6	15.2	31.7	5.1	4.2	268
Sex of child								
Male	23.8	12.5	10.3	18.9	25.8	4.2	4.6	11461
Female	24.6	12.5	10.0	19.0	25.2	4.4	3.2	9729
Birth Order								
1	27.1	13.1	13.2	19.3	21.2	3.4	2.7	8863
2	26.4	12.6	10.3	17.9	25.3	3.2	4.4	7707
3	19.7	11.7	5.5	20.6	31.7	4.6	6.1	2754
4+	13.3	10.9	5.3	19.2	33.6	9.7	7.9	1866

Table 4.14: Contd...

Background characteristics	Govt./ Municipal Hospital	PHC/ CHC	Private Hosp./ Clinic	Out reach				No. of children immunised with at least one vaccine#
				Sub Centre	AWC	Some Place in Village)	Others	
Residence								
Rural	16.4	12.5	5.8	24.0	31.2	5.2	4.9	11703
Urban	43.6	12.5	21.1	6.3	11.4	2.0	3.2	9487
Mother's Education								
No education	13.8	10.9	3.4	21.6	37.1	7.3	5.9	4902
<5 years complete	21.0	9.6	6.6	22.1	35.2	2.6	2.9	1183
5-7 years complete	24.5	14.4	5.9	22.9	25.0	3.7	3.6	3334
8-9 years complete	27.1	14.5	8.9	19.5	22.2	4.0	3.8	3633
10-11 years complete	36.6	14.3	15.2	15.3	13.6	2.3	2.8	3814
12 or more years complete	34.5	11.1	29.2	9.3	10.3	0.7	4.8	4324
Religious group								
Hinduism	23.0	12.2	10.1	18.6	27.4	4.3	4.5	15580
Islam	26.7	14.2	10.2	23.3	17.4	5.2	3.0	2597
Sikhism	29.2	13.3	10.4	20.0	8.5	2.2	15.5	396
Christianity	40.2	15.4	12.0	16.1	11.1	2.2	2.9	2234
Other religious group	34.9	3.9	12.0	2.3	45.6	0.8	0.5	383
Social group								
Scheduled Caste	24.9	9.8	4.2	24.1	27.8	5.2	4.0	3743
Scheduled Tribe	14.6	9.8	3.2	17.5	49.5	2.6	2.7	3444
Other backward Classes	24.5	14.8	10.9	14.6	25.6	5.1	4.5	7443
Others	25.8	12.1	15.6	21.3	17.4	2.8	5.1	6560
BPL status								
Have BPL card	21.6	11.2	5.0	21.2	32.9	3.7	4.5	6688
Don't have BPL card	25.7	13.3	13.3	17.6	21.1	4.6	4.4	14502
Wealth Index								
Lowest	7.6	9.3	1.7	24.6	42.3	8.0	6.4	3982
Second	25.8	13.7	3.4	21.5	28.4	3.5	3.6	4132
Middle	32.3	15.4	8.4	18.4	19.1	3.1	3.3	4282
Fourth	36.0	15.3	16.5	14.9	12.4	2.0	2.9	4363
Highest	33.7	10.4	33.9	7.9	8.0	1.5	4.6	4431
Total	24.2	12.5	10.2	18.9	25.6	4.3	4.4	21190

unweighted cases

Table 4.15a: Percentage of children aged 12-23 months who were partially or fully immunized according to place of immunization, for most vaccines, according to States/UT - Total

States/UT	Govt./ Municipal Hospital	PHC/ CHC	Private Hosp./ Clinic	Out reach				No. of children immunised with at least one vaccine#
				Sub Centre	AWC	Some Place in Village)	Others	
Andhra Pradesh	42.6	6.9	7.9	26.0	12.9	2.5	1.2	883
Arunachal Pradesh	62.0	12.4	2.3	19.5	1.9	0.2	1.7	451
Assam	21.9	13.4	5.0	45.9	11.8	1.8	0.1	799
Bihar	8.3	8.4	6.8	19.6	49.4	2.5	5.1	953
Chhattisgarh	8.4	7.2	5.5	1.9	73.2	1.5	2.1	506
Delhi	45.1	3.5	28.3	17.8	1.0	0.9	3.4	558
Goa	24.2	31.1	13.5	29.3	1.9	0.0	0.0	534
Gujarat	14.1	22.5	10.9	9.6	31.5	0.5	10.9	772
Haryana	23.8	16.6	12.1	35.0	9.9	0.0	2.6	612
Himachal Pradesh	11.0	33.5	1.3	40.6	6.3	0.0	7.4	542
Jammu & Kashmir	42.0	23.7	2.7	28.2	2.9	0.3	0.3	558
Jharkhand	5.9	5.3	7.8	9.1	64.9	4.5	2.5	604
Karnataka	31.0	18.4	9.7	5.8	34.1	0.2	0.9	747
Kerala	62.2	11.7	21.0	3.7	1.1	0.3	0.0	749
Madhya Pradesh	11.6	9.3	3.8	12.7	55.7	0.9	5.9	991
Maharashtra	33.7	11.2	11.6	4.7	33.8	3.6	1.3	993
Manipur	47.6	20.6	7.7	14.1	1.4	2.2	6.4	578
Meghalaya	17.2	47.8	4.7	17.3	0.1	11.6	1.3	548
Mizoram	2.4	1.5	8.9	85.1	1.0	0.2	0.8	571
Nagaland	34.3	14.2	12.2	37.6	0.0	0.9	0.7	453
Orissa	8.1	6.5	4.4	13.8	52.8	6.8	7.6	877
Punjab	37.0	12.4	13.2	13.3	8.2	0.0	16.0	555
Rajasthan	20.5	12.1	5.1	19.9	39.1	2.1	1.2	785
Sikkim	43.1	12.8	0.6	30.9	11.3	0.0	1.3	401
Tamil Nadu	53.0	22.3	20.0	3.8	0.2	0.0	0.7	1028
Tripura	68.9	3.3	1.1	17.2	3.3	3.4	2.8	592
Uttar Pradesh	11.2	16.0	14.6	17.8	13.6	17.0	10.0	908
Uttarakhand	10.0	15.3	8.8	50.3	11.4	3.2	1.1	534
West Bengal	16.6	4.4	5.7	60.5	5.4	3.9	3.5	802
UTs combined	47.4	15.6	9.5	14.9	7.8	0.1	4.7	1181
Total	24.2	12.5	10.2	18.9	25.6	4.3	4.4	21190

unweighted cases

Table 4.15b: Percentage of children aged 12-23 months who were partially or fully immunized according to place of immunization for most vaccines according to States/UT - Rural

States/UT	Govt./ Municipal Hospital	PHC/ CHC	Private Hosp./ Clinic	Out reach				No. of children immunised with at least one vaccine#
				Sub Centre	AWC	Some Place in Village)	Others	
Andhra Pradesh	37.8	5.2	5.7	31.9	15.1	3.0	1.2	535
Arunachal Pradesh	55.1	14.1	2.6	23.5	2.5	0.1	2.1	261
Assam	15.4	14.8	3.8	51.1	13.0	1.9	0.0	485
Bihar	6.2	7.6	4.8	21.2	51.8	2.8	5.6	566
Chhattisgarh	3.1	7.1	1.6	2.4	83.6	1.5	0.6	251
Delhi	33.0	10.0	8.9	42.6	1.5	1.2	2.8	57
Goa	11.4	30.5	12.2	45.5	0.5	0.0	0.0	261
Gujarat	4.4	24.8	3.3	13.0	40.1	0.3	14.1	450
Haryana	18.5	14.8	7.4	44.0	12.2	0.0	3.1	321
Himachal Pradesh	4.8	36.0	0.8	43.5	6.9	0.0	8.1	274
Jammu & Kashmir	29.7	31.1	1.3	33.3	3.8	0.4	0.3	282
Jharkhand	1.7	1.7	2.5	10.4	76.8	5.9	1.0	350
Karnataka	20.2	24.5	4.6	8.4	41.4	0.3	0.6	429
Kerala	64.1	12.3	17.9	4.5	0.8	0.4	0.0	466
Madhya Pradesh	4.1	8.7	1.1	15.6	62.0	1.0	7.5	582
Maharashtra	19.7	12.7	8.7	7.8	49.3	1.8	0.1	604
Manipur	50.2	13.4	8.4	15.9	2.0	2.3	7.7	329
Meghalaya	5.0	57.7	0.8	20.5	0.0	14.7	1.2	314
Mizoram	4.2	1.2	3.2	88.4	2.1	0.4	0.6	319
Nagaland	24.1	16.5	13.5	44.3	0.0	1.1	0.5	232
Orissa	1.8	6.8	0.5	15.7	59.0	7.3	8.8	555
Punjab	33.8	16.0	6.0	18.2	11.9	0.0	14.1	291
Rajasthan	11.6	11.1	1.8	25.3	46.1	2.7	1.3	448
Sikkim	37.9	14.0	0.0	34.5	12.5	0.0	1.1	227
Tamil Nadu	60.1	24.8	9.1	5.3	0.4	0.0	0.5	633
Tripura	65.1	3.6	0.2	20.3	4.0	3.5	3.3	353
Uttar Pradesh	3.8	15.0	11.6	21.7	16.1	20.6	11.1	538
Uttarakhand	2.2	16.4	2.4	62.5	14.2	1.6	0.7	275
West Bengal	8.4	1.8	1.5	74.2	5.7	4.1	4.1	490
UTs combined	45.5	15.9	5.7	19.7	8.9	0.1	4.3	424
Total	16.4	12.5	5.4	24.0	31.2	5.2	4.9	11703

unweighted cases

Table 4.15: Percentage of children aged 12-23 months who were partially or fully immunized according to place of immunization for most vaccines according to States/UT - Urban

States/UT	Govt./ Municipal Hospital	PHC/ CHC	Private Hosp./ Clinic	Out reach				No. of children immunised with at least one vaccine#
				Sub Centre	AWC	Some Place in Village)	Others	
Andhra Pradesh	55.2	11.3	13.7	10.4	7.1	1.1	1.2	348
Arunachal Pradesh	83.4	7.2	1.6	7.0	0.0	0.4	0.4	190
Assam	67.2	4.3	13.7	10.0	3.3	0.8	0.7	314
Bihar	26.3	14.9	24.1	5.8	28.5	0.1	0.3	387
Chhattisgarh	28.7	7.8	20.7	0.1	33.3	1.6	7.8	255
Delhi	46.0	3.0	29.7	16.0	0.9	0.9	3.5	501
Goa	37.1	31.7	14.8	13.0	3.3	0.0	0.0	273
Gujarat	30.1	18.6	23.5	4.1	17.4	0.9	5.6	322
Haryana	36.6	21.1	23.8	13.2	4.3	0.0	1.1	291
Himachal Pradesh	68.7	9.9	6.3	13.2	1.0	0.0	0.9	268
Jammu & Kashmir	77.8	1.8	6.7	13.0	0.2	0.0	0.4	276
Jharkhand	20.0	17.3	25.5	4.7	24.9	0.0	7.7	254
Karnataka	51.7	6.6	19.6	0.9	20.0	0.0	1.3	318
Kerala	56.8	10.0	29.9	1.2	2.1	0.0	0.0	283
Madhya Pradesh	31.4	10.8	11.0	5.1	39.2	0.8	1.5	409
Maharashtra	52.5	9.3	15.5	0.5	13.2	6.0	3.0	389
Manipur	41.0	38.4	5.8	9.6	0.0	2.0	3.2	249
Meghalaya	62.8	10.5	19.3	5.1	0.4	0.0	2.0	234
Mizoram	0.9	1.8	14.2	82.2	0.0	0.0	1.0	252
Nagaland	78.1	4.7	6.8	9.1	0.0	0.0	1.3	221
Orissa	44.0	4.7	26.8	2.5	17.1	3.7	1.2	322
Punjab	43.2	5.3	27.0	3.8	1.0	0.0	19.6	264
Rajasthan	47.0	15.0	14.8	3.7	18.3	0.5	0.8	337
Sikkim	75.8	5.2	4.5	8.6	3.8	0.0	2.2	174
Tamil Nadu	43.9	19.1	34.0	1.9	0.0	0.0	1.1	395
Tripura	87.6	1.6	5.3	2.2	0.0	3.3	0.0	239
Uttar Pradesh	37.7	19.6	25.2	3.5	4.4	3.7	5.9	370
Uttarakhand	32.1	12.0	26.9	16.0	3.3	7.7	2.0	259
West Bengal	37.4	11.1	16.3	25.4	4.6	3.4	1.7	312
UTs combined	54.4	14.2	12.7	10.4	4.1	0.2	4.0	757
Total	43.6	12.5	19.4	6.3	11.4	2.0	3.2	9487

unweighted cases

4.9 DISTANCE TRAVELLED AND TIME TAKEN FOR CHILD'S IMMUNIZATION

The mothers/care givers of the children aged 12-23 months were asked about the distance travelled to reach the place of immunization. The data analyzed according to background characteristics is shown in Table 4.16. The table indicates that around 44 percent of mothers travelled less than one kilometer and another 39 percent traveled 1-3 kilometers to vaccinate their child. Only 17 percent mothers reportedly travelled beyond

3 kilometers for their child's vaccination. More than three-fourth mothers took less than 20 minutes to reach the place of immunization. The average distance travelled by a mother to reach the place of immunization was 2.2 kilometers and the average time taken was 18 minutes. There was no statistically significant difference in the distance travelled by rural and urban mothers for their children's vaccination. Scheduled tribes had to travel more distance, on an average, as compared to other caste categories for their child's vaccination. Higher wealth quintile mothers travelled more than lower quintile mothers.

Table 4.16: Percentage of children aged 12-23 months who received at least one vaccine according to the distance covered to reach the place for last immunization and time taken to reach that place

Background characteristics	Distance (in km.)					Time taken (in Minutes)				No. of children immunised with at least one vaccine#
	<1	1-3	3-5	5+	Mean distance (Kms.)	<20	20-30	30+	Mean time (minutes)	
Residence										
Rural	56.2	30.1	5.3	8.4	2.2	80.0	12.0	8.0	18.2	11703
Urban	42.3	43.7	6.7	7.3	2.1	78.4	15.7	5.9	17.6	9487
Religious Group										
Hinduism	52.9	33.2	5.6	8.3	2.0	79.8	12.8	7.5	17.6	15580
Islam	50.6	37.9	5.6	5.9	1.8	78.1	15.0	6.9	18.4	2597
Sikhism	52.5	31.8	5.5	10.2	2.3	87.2	9.6	3.3	14.7	396
Christianity	33.4	40.7	10.9	15.0	3.3	68.4	18.5	13.1	20.8	2234
Others	61.3	29.0	6.7	2.9	3.5	89.9	7.7	2.4	18.7	383
Social Group										
Scheduled Caste	58.1	31.8	4.8	5.3	1.7	80.7	13.4	5.8	17.0	3743
Scheduled Tribe	54.1	36.7	4.4	4.9	2.7	81.7	11.4	6.9	19.6	3444
Other backward Classes	51.3	33.8	5.7	9.3	2.1	79.8	12.5	7.6	17.5	7443
Others	48.5	35.1	6.8	9.5	2.2	77.6	14.0	8.4	18.4	6560
BPL status										
Have BPL card	56.2	32.0	4.9	6.8	2.1	81.2	11.9	6.9	18.0	6688
Don't have BPL card	49.8	35.1	6.2	8.9	2.3	78.5	13.8	7.7	18.0	14502

Table 4.16: Contd...

Background characteristics	Distance (in km.)					Time taken (in Minutes)				No. of children immunised with at least one vaccine#
	<1	1-3	3-5	5+	Mean distance (Kms.)	<20	20-30	30+	Mean time (minutes)	
Wealth Index										
Lowest	63.3	28.8	3.5	4.4	1.4	81.1	11.6	7.2	17.1	3982
Second	55.8	31.9	5.6	6.6	2.1	81.3	12.3	6.3	17.7	4132
Middle	47.5	36.6	6.4	9.5	2.4	77.5	15.7	6.8	18.9	4282
Fourth	45.7	36.9	7.3	10.2	2.6	78.4	14.1	7.5	18.7	4363
Highest	35.9	41.7	8.0	14.3	2.6	77.1	12.9	10.0	17.9	4431
Total	43.7	39.3	7.3	9.7	2.2	76.5	14.3	9.3	18.0	21190

unweighted cases

State differentials with regard to distance travelled existed. In the States like Arunachal Pradesh, Manipur, Kerala, Meghalaya, Tamil Nadu and

Sikkim, mothers had to travel more distance (around 5 kilometres) and spent more time on travel for their child's vaccinations (Table 4.17).

Table 4.17: Percentage of children aged 12-23 months who received at least one vaccine according to the distance travelled to reach the place for last immunization and time taken to reach that place according to States/UT

States/UT	Distance (in km.)					Time taken (in Minutes)				No. of children immunised with at least one vaccine#
	<1	1-3	3-5	5+	Mean distance (Kms.)	<20	20-30	30+	Mean time (minutes)	
Andhra Pradesh	55.3	32.8	5.0	6.9	1.6	78.9	14.6	6.5	16.7	883
Arunachal Pradesh	7.0	44.6	15.9	32.5	5.6	51.2	18.8	29.9	30.2	451
Assam	9.8	76.5	8.6	5.0	2.1	65.9	22.1	12.0	21.9	799
Bihar	71.8	19.0	3.5	5.8	1.1	81.7	9.0	9.3	15.8	953
Chhattisgarh	62.8	32.6	1.2	3.3	0.7	93.0	4.8	2.2	10.8	506
Delhi	18.7	67.0	10.6	3.7	2.1	66.7	18.0	15.3	23.1	558
Goa	30.0	38.3	11.9	19.8	3.2	80.7	14.1	5.2	17.9	534
Gujarat	49.2	41.5	4.4	4.9	1.5	83.0	13.2	3.8	14.8	772
Haryana	41.1	49.7	4.1	5.2	1.5	83.0	9.9	7.0	15.5	612
Himachal Pradesh	32.9	55.0	3.6	8.4	1.9	66.9	15.9	17.2	23.3	542
Jammu & Kashmir	42.7	41.3	7.8	8.2	2.3	63.3	24.1	12.5	22.9	558
Jharkhand	42.6	48.0	4.1	5.3	1.4	86.8	8.8	4.5	12.5	604

Table 4.17: Contd...

States/UT	Distance (in km.)					Time taken (in Minutes)				No. of children immunised with at least one vaccine#
	<1	1-3	3-5	5+	Mean distance (Kms.)	<20	20-30	30+	Mean time (minutes)	
Karnataka	59.9	21.9	6.8	11.4	2.0	83.4	13.4	3.2	14.5	747
Kerala	15.5	43.9	19.1	21.5	4.5	68.5	16.7	14.7	22.1	749
Madhya Pradesh	55.1	34.8	4.0	6.1	1.6	81.7	10.2	8.1	17.6	991
Maharashtra	68.1	24.2	3.6	4.1	1.1	88.4	9.4	2.2	12.8	993
Manipur	34.9	27.9	16.6	20.6	5.2	65.2	16.8	18.0	23.6	578
Meghalaya	25.3	37.2	15.5	22.0	3.8	50.3	26.5	23.2	24.9	548
Mizoram	79.5	15.3	2.9	2.3	0.6	94.3	4.1	1.6	11.2	571
Nagaland	49.8	36.9	4.9	8.4	2.2	77.0	14.8	8.1	17.1	453
Orissa	69.4	25.5	2.2	2.9	0.9	80.7	9.7	9.6	17.4	877
Punjab	52.9	33.3	3.6	10.2	2.0	90.4	7.2	2.4	12.0	555
Rajasthan	60.9	30.3	4.3	4.5	1.3	87.5	8.0	4.5	12.9	785
Sikkim	9.0	61.3	14.1	15.6	3.6	50.0	23.4	26.6	27.1	401
Tamil Nadu	14.5	47.4	13.3	24.8	4.5	72.0	16.5	11.4	21.9	1028
Tripura	5.5	69.5	11.6	13.3	2.9	69.0	23.5	7.5	19.0	592
Uttar Pradesh	62.0	23.2	4.8	10.0	1.9	75.9	14.5	9.6	18.0	908
Uttarakhand	39.5	45.5	6.8	8.2	2.3	65.1	21.8	13.1	21.5	534
West Bengal	49.2	42.5	5.1	3.2	1.2	74.6	19.1	6.2	17.1	802
UTs combined	41.3	44.4	7.1	7.2	1.8	86.6	10.7	2.7	14.3	1181
Total	43.7	39.3	7.3	9.7	2.2	76.5	14.3	9.3	18.0	21190

unweighted cases

4.10 SOURCE OF INFORMATION

Main source of information about the immunization was the *Anganwadi* worker (38.2 percent) followed by ANM/LHV/male worker (38 percent), Government doctor (24.7 percent), and family member (21.3 percent) (Table 4.18). Rural mothers received information mostly from *Anganwadi* worker (44.6 percent), and ANM/LHV/Male worker (39.8 percent) whereas urban mothers received it mainly from Government doctor (36.6 percent) and ANM/LHV/Male worker (33.5 percent). Further, illiterate mothers mostly received information from *Anganwadi* worker (47.7 percent) followed by ANM/LHV/male worker (38.2 percent). Mothers from higher wealth quintile were more likely to get information from

Government or private doctor compared to that of lowest quintile mothers.

The reported source of information on immunization varied from State to State. For instance, in the States of Jammu & Kashmir, Meghalaya, and Tripura the government doctor gave information to more than 50 percent mothers (Table 4.19a). On the other hand in the States of Andhra Pradesh, Goa, Himachal Pradesh, Tamil Nadu, Mizoram, Uttarakhand, West Bengal and Uttar Pradesh ANM/LHV/Male workers were the main sources of information. Further in States like Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, and Rajasthan, the *Anganwadi* worker was reported as the main source of information. There were rural and urban differentials in the sources of information across States (Tables 4.19b-c).

Table 4.18: Percentage of children aged 12-23 months who received at least one vaccine according to sources of information about immunization by selected background characteristics - (Multiple responses)

Background characteristics	Govt. Doctor	Pvt. Doctor	ANM/LHV/ HW (M)	AWW	ASHA/TBA	Family Member	Social worker, NGO worker	Radio/ TV	Print Media	Others include friends/ neighbours	Number of children who received at least one vaccine# (n)
Mother's Age (in Years)											
15-19	12.8	6.0	38.5	39.8	16.5	24.1	0.4	12.2	1.6	12.8	548
20-24	26.2	12.2	40.9	38.8	18.6	20.5	1.2	14.8	3.9	16.7	7209
25-34	25.6	13.8	35.6	37.5	18.7	22.1	1.4	15.4	4.6	17.2	11885
35-44	16.8	8.5	36.1	36.9	23.4	20.1	1.0	12.0	3.9	19.7	1280
45+	24.7	6.3	49.2	41.7	13.8	12.7	2.0	7.7	5.1	15.6	268
Sex of child											
Male	24.3	12.6	38.2	38.3	18.5	21.5	1.3	15.1	4.2	17.0	11461
Female	25.2	12.2	37.7	38.0	19.0	21.1	1.3	14.4	4.2	16.9	9729
Birth Order											
1	26.8	15.3	37.9	34.0	16.7	24.3	1.3	15.7	4.6	15.6	8863
2	28.5	13.3	38.3	40.4	17.9	20.4	1.4	15.8	5.4	16.3	7707
3	21.3	7.7	36.3	41.4	21.8	19.3	1.3	13.9	2.8	18.9	2754
4+	10.7	6.1	39.3	41.3	24.5	17.1	0.8	9.7	1.0	20.7	1866
Residence											
Rural	20.0	7.7	39.8	44.6	23.4	18.9	1.1	12.9	3.2	17.1	11703
Urban	36.6	24.2	33.5	22.0	7.2	27.4	1.7	19.5	6.7	16.5	9487
Mother's Education											
No education	14.0	3.8	38.2	47.7	24.7	15.9	0.7	6.9	0.6	18.4	4902
<5 years complete	21.0	6.3	42.3	49.4	18.7	14.4	1.0	10.6	2.0	15.1	1183
5-7 years complete	27.5	9.5	44.7	40.6	18.4	21.5	1.1	12.1	2.5	14.4	3334
8-9 years complete	30.8	12.3	37.7	34.1	19.6	20.9	1.5	19.5	5.0	16.2	3633
10-11 years complete	33.7	21.1	36.6	30.5	12.0	27.4	1.7	20.0	8.0	19.7	3814
12 or more years complete	32.6	30.6	29.4	20.0	10.8	31.5	2.3	27.6	11.1	15.4	4324
Religious group											
Hinduism	23.9	12.3	38.6	39.9	19.7	20.4	1.2	14.9	3.9	16.8	15580
Islam	25.7	11.7	37.4	30.6	16.4	24.5	1.2	10.8	2.9	17.0	2597
Sikhism	32.7	17.8	34.6	19.8	6.7	16.9	0.9	32.2	4.4	10.8	396
Christianity	35.8	18.7	27.0	23.3	16.4	28.1	4.0	13.9	14.8	21.3	2234
Other religious group	31.4	12.1	30.6	60.0	5.3	35.1	0.5	27.1	12.3	25.9	383
Social group											
Scheduled Caste	22.8	6.4	43.3	42.4	17.9	19.4	1.0	12.3	3.6	17.2	3743
Scheduled Tribe	20.0	7.7	35.3	57.1	24.7	15.0	1.8	7.7	2.0	17.8	3444
Other backward Classes	24.7	13.6	38.7	37.2	20.1	22.2	1.3	13.4	3.9	17.3	7443
Others	27.6	16.8	33.7	31.1	16.1	23.4	1.3	20.4	5.6	16.0	6560
BPL status											
Have BPL card	23.1	8.3	39.7	46.3	22.3	19.9	1.5	8.5	2.9	16.3	6688
Don't have BPL card	25.8	15.0	36.9	33.2	16.6	22.2	1.1	18.6	5.0	17.3	14502
Wealth Index											
Lowest	9.6	2.5	38.3	49.6	27.2	14.7	0.6	4.1	1.0	18.9	3982
Second	24.8	6.1	42.8	43.6	20.0	18.1	1.4	9.8	1.8	13.7	4132
Middle	32.1	11.5	41.8	36.2	16.6	21.3	1.2	17.2	4.8	16.8	4282
Fourth	35.8	19.2	36.1	28.3	12.8	26.7	1.7	24.1	6.6	15.0	4363
Highest	35.6	37.2	27.0	18.7	8.1	34.5	1.9	31.8	11.3	20.2	4431
Total	24.7	12.4	38.0	38.2	18.8	21.3	1.3	14.8	4.2	16.9	21190

unweighted cases

Table 4.19a: Percentage of children aged 12-23 months who received at least one vaccine according to sources of information about immunization by States/UT- Total (Multiple responses)

States/UT	Govt. Doctor	Pvt. Doctor	ANM/ LHV/ HW (M)	AWW	ASHA/ TBA	Family Member	Social worker, NGO worker	Radio/ TV	Print Media	Others include friends/ neighbours	Number of children who received at least one vaccine# (n)
Andhra Pradesh	39.6	14.9	50.1	44.4	23.7	22.5	1.5	5.1	1.6	15.2	883
Arunachal Pradesh	37.5	2.2	36.9	13.3	9.9	37.4	3.8	12.7	1.2	15.0	451
Assam	15.4	3.2	24.8	9.3	63.0	17.1	1.6	10.8	0.9	10.4	799
Bihar	6.4	6.1	25.9	54.4	16.1	25.8	0.1	6.7	0.6	29.1	953
Chhattisgarh	12.8	3.4	18.5	62.1	54.7	6.7	0.1	4.1	0.4	2.7	506
Delhi	48.5	38.8	16.9	6.2	8.1	45.4	3.3	40.6	17.3	29.9	558
Goa	41.4	14.0	70.5	43.2	1.4	9.7	0.9	21.5	18.5	12.5	534
Gujarat	16.0	8.8	41.1	47.1	40.1	7.6	40.1	40.1	40.1	11.5	772
Haryana	18.7	18.8	34.5	22.9	16.4	36.2	5.8	35.3	19.3	33.1	612
Himachal Pradesh	28.4	3.1	53.0	55.4	0.8	14.4	2.5	20.8	12.2	5.0	542
Jammu & Kashmir	52.7	7.5	6.4	18.4	20.1	57.0	1.6	37.4	9.8	14.6	558
Jharkhand	5.4	6.8	23.2	61.7	12.8	20.5	0.5	13.1	2.8	26.6	604
Karnataka	40.1	40.1	47.0	45.8	6.7	21.6	1.8	13.0	3.9	11.6	747
Kerala	49.1	29.6	15.0	16.2	17.4	42.1	8.6	15.3	33.4	18.0	749
Madhya Pradesh	15.8	3.4	25.3	57.3	15.6	15.2	0.5	10.4	4.6	22.6	991
Maharashtra	46.6	19.0	39.7	53.4	3.5	27.9	1.0	17.1	6.0	18.4	993
Manipur	38.2	6.8	19.2	9.4	9.3	23.2	7.9	35.2	11.4	27.7	578
Meghalaya	56.8	15.5	15.2	15.3	20.5	20.1	5.9	22.1	19.0	25.6	548
Mizoram	7.7	10.0	48.5	24.9	6.2	14.9	13.9	1.1	0.3	12.9	571
Nagaland	13.5	10.8	36.4	12.8	11.4	40.6	1.1	8.5	6.9	44.6	453
Orissa	10.3	5.2	15.3	60.8	62.4	11.5	0.3	25.2	3.5	21.5	877
Punjab	40.1	23.2	26.5	13.0	3.9	13.9	0.9	35.9	3.0	3.8	555
Rajasthan	25.4	7.4	42.2	57.8	21.3	18.4	0.2	24.9	3.4	14.0	785
Sikkim	44.7	0.7	30.1	32.0	36.7	18.3	0.2	2.2	-	9.6	401
Tamil Nadu	40.1	40.1	50.2	12.5	3.6	23.5	2.1	8.2	3.0	11.7	1028
Tripura	71.6	2.8	8.9	8.0	27.0	25.9	0.2	1.4	0.4	6.7	592
Uttar Pradesh	11.5	11.3	40.7	19.2	34.0	21.3	0.1	21.1	0.6	20.6	908
Uttarakhand	6.9	6.3	60.8	41.2	34.0	30.7	0.5	24.5	2.3	24.1	534
West Bengal	8.4	4.9	63.8	29.4	4.7	11.6	0.3	7.3	1.5	5.2	802
UTs combined	36.9	16.9	55.9	24.6	2.2	28.9	1.6	15.1	5.7	11.0	1181
Total	24.7	12.4	38.0	38.2	18.8	21.3	1.3	14.8	4.2	16.9	21190

unweighted cases

Table 4.19b: Percentage of children age 12-23 months who received at least one vaccine according to sources of information about immunization by States/ UT – Rural (Multiple responses)

States/UT	Govt. Doctor	Pvt. Doctor	ANM/ LHV/ HW (M)	AWW	ASHA/ TBA	Family Member	Social worker, NGO worker	Radio/ TV	Print Media	Others include friends/ neighbours	Number of children who received at least one vaccine# (n)
Andhra Pradesh	38.6	11.3	55.7	49.8	24.5	21.9	1.9	3.4	1.7	16.0	535
Arunachal Pradesh	31.8	1.8	37.0	15.4	11.0	35.4	3.3	14.3	0.2	10.1	261
Assam	11.6	2.0	24.3	10.0	68.9	14.6	1.6	10.4	0.7	9.6	485
Bihar	5.6	4.5	26.3	57.2	17.8	24.8	0.1	4.1	0.3	29.1	566
Chhattisgarh	7.6	0.9	20.0	68.8	66.5	5.2	-	3.2	0.4	1.3	251
Delhi	47.5	13.0	33.8	17.7	20.6	51.9	11.2	30.9	8.6	39.5	57
Goa	38.1	11.2	70.5	50.3	1.6	11.2	0.1	20.2	17.8	14.1	261
Gujarat	9.6	2.0	48.3	60.0	3.2	4.5	1.5	1.6	0.1	7.4	450
Haryana	16.5	16.5	39.5	28.2	18.9	36.5	2.9	32.2	19.8	37.2	321
Himachal Pradesh	24.7	2.3	55.4	58.8	0.8	14.3	2.6	20.5	12.1	4.2	274
Jammu & Kashmir	46.0	4.3	7.6	23.5	26.2	55.2	1.5	35.5	7.8	16.0	282
Jharkhand	1.6	3.1	26.5	71.7	15.2	17.9	17.9	7.2	0.2	24.6	350
Karnataka	41.9	11.7	53.7	53.3	7.2	20.0	2.1	13.2	2.2	10.8	429
Kerala	50.8	27.0	16.8	17.9	18.9	43.9	7.8	14.2	36.6	19.3	466
Madhya Pradesh	10.9	1.7	26.1	61.4	18.2	12.2	0.6	10.0	4.5	22.1	582
Maharashtra	36.7	15.8	35.9	68.0	4.7	25.6	1.2	15.1	2.0	20.4	604
Manipur	37.1	7.1	16.2	6.8	9.6	18.3	9.4	34.9	13.2	24.5	329
Meghalaya	58.4	14.3	16.5	18.3	24.8	18.3	6.2	22.2	21.0	26.9	314
Mizoram	4.8	3.8	51.3	25.8	5.8	12.9	13.8	0.6	0.3	10.7	319
Nagaland	10.7	10.9	40.0	13.7	10.5	33.6	0.8	7.7	5.7	44.2	232
Orissa	5.1	1.1	16.5	67.2	70.8	11.2	0.3	21.0	2.3	22.2	555
Punjab	39.6	14.8	30.6	18.1	5.1	13.8	1.3	32.4	1.9	3.7	291
Rajasthan	21.3	2.8	45.3	68.4	24.3	13.2	0.2	19.3	2.2	13.2	448
Sikkim	39.5	0.0	32.2	35.4	42.3	20.2	0.0	1.6	-	10.9	227
Tamil Nadu	41.7	13.1	56.9	14.6	1.0	18.1	1.7	4.4	1.1	8.8	633
Tripura	70.3	1.8	8.5	8.9	32.3	25.8	0.1	0.5	0.2	5.7	353
Uttar Pradesh	10.1	9.0	41.1	21.7	41.5	17.3	-	22.3	0.4	21.2	538
Uttarakhand	5.4	1.6	63.7	45.4	32.9	36.0	0.7	25.8	2.4	21.2	275
West Bengal	3.8	1.4	67.6	35.7	6.1	11.2	0.2	6.1	1.0	5.4	490
UTs combined	36.4	14.1	64.3	33.4	2.1	34.9	1.3	11.4	5.0	10.6	424
Total	20.0	7.7	39.8	44.6	23.4	18.9	1.1	12.9	3.2	17.1	11703

unweighted cases

Table 4.19c: Percentage of children aged 12-23 months who received at least one vaccine according to sources of information about immunization by States/ UT- Urban (Multiple responses)

States/UT	Govt. Doctor	Pvt. Doctor	ANM/ LHV/ HW (M)	AWW	ASHA/ TBA	Family Member	Social worker, NGO worker	Radio/ TV	Print Media	Others include friends/ neighbours	Number of children who received at least one vaccine# (n)
Andhra Pradesh	42.2	24.2	35.2	30.0	21.4	24.1	0.4	9.8	1.2	13.0	348
Arunachal Pradesh	55.4	3.4	36.7	6.7	6.5	43.9	5.4	7.8	4.2	30.4	190
Assam	41.5	11.7	27.9	4.4	22.8	34.0	1.1	12.9	2.2	16.0	314
Bihar	12.8	20.3	22.0	30.4	2.0	33.8	0.3	29.3	3.3	28.9	387
Chhattisgarh	32.9	13.0	12.4	36.6	9.7	12.4	0.3	7.4	0.5	8.2	255
Delhi	48.6	40.7	15.6	5.3	7.2	44.9	2.8	41.3	18.0	29.2	501
Goa	44.8	16.8	70.5	36.0	1.2	8.1	1.8	22.9	19.1	10.9	273
Gujarat	26.4	19.9	29.2	26.0	2.6	12.6	3.3	5.8	0.6	18.2	322
Haryana	24.0	24.4	22.6	10.0	10.2	35.4	13.0	42.7	18.1	23.3	291
Himachal Pradesh	63.8	10.2	30.0	23.0	0.4	16.1	2.1	23.7	12.7	12.1	268
Jammu & Kashmir	72.4	16.7	3.1	3.7	2.4	62.0	1.7	42.9	15.7	10.4	276
Jharkhand	18.3	19.4	12.3	28.2	4.9	29.4	2.2	32.7	11.3	33.5	254
Karnataka	49.4	28.9	34.3	31.3	5.8	24.8	1.3	12.5	7.4	13.2	318
Kerala	44.0	37.2	10.0	11.2	13.0	36.7	10.7	18.5	24.1	14.2	283
Madhya Pradesh	28.6	7.9	23.1	46.6	8.5	23.2	0.4	11.3	4.9	23.8	409
Maharashtra	59.9	23.2	44.8	33.8	1.9	31.0	0.7	19.6	11.4	15.6	389
Manipur	40.8	6.1	26.7	15.6	8.6	35.3	4.2	36.1	6.8	35.4	249
Meghalaya	50.9	20.2	10.3	4.3	4.2	27.0	4.8	21.7	11.4	21.1	234
Mizoram	10.5	15.8	45.8	24.2	6.5	16.7	14.0	1.6	0.3	14.9	252
Nagaland	25.2	10.5	21.1	8.7	15.4	70.4	2.4	11.8	11.7	46.2	221
Orissa	40.1	28.8	8.6	24.2	14.6	13.5	0.5	49.2	10.7	17.7	322
Punjab	40.5	39.2	18.7	3.1	1.8	14.1	0.1	42.5	5.1	4.0	264
Rajasthan	37.8	21.0	33.0	26.3	12.5	34.0	0.1	41.5	6.9	16.3	337
Sikkim	76.6	5.1	17.0	11.1	1.9	6.6	1.2	5.8	-	1.4	174
Tamil Nadu	36.1	42.3	41.6	9.7	7.0	30.5	2.8	12.9	5.4	15.5	395
Tripura	77.9	7.7	10.6	3.4	1.2	26.8	0.5	5.3	1.5	11.3	239
Uttar Pradesh	16.7	19.4	39.2	10.3	7.0	35.9	0.4	16.8	1.3	18.3	370
Uttarakhand	11.0	19.4	52.8	29.3	37.3	15.7	-	20.8	2.1	32.1	259
West Bengal	20.3	13.8	54.1	13.5	1.0	12.6	0.4	10.1	3.1	4.4	312
UTs combined	41.1	19.1	49.9	14.5	2.3	24.1	1.6	16.9	5.6	12.1	757
Total	36.6	24.2	33.5	22.0	7.2	27.4	1.7	19.5	6.7	16.5	9487

unweighted cases

An attempt was also made to know whether the mothers of children between the ages of 12-23 months had to make more than one visit for their child's vaccination. Around 5 percent mothers reported that they had to make more than one visit for vaccination (Table 4.20). The percentage of mothers who made more than one visit was slightly more in rural than in urban areas. The major reasons for revisits reported by mothers included non-availability of vaccine at the health facility (45 percent),

absence of the providers (27 percent) and long waiting time (26 percent).

Inter-State variations with regard to revisits were observed. The analysis of the data indicates that more than 10 percent of mothers from Andhra Pradesh, Manipur, Mizoram and West Bengal had to visit more than once for immunization (Table 4.21). In majority of the States, two major reasons for more than one visit were non-availability of vaccine and absence of service provider.

Table 4.20: Percentage of children aged 12-23 months who made more than 1 visit for immunization and the reasons for more than one visit for last immunization

Responses	Rural	Urban	Total
Percentage of mothers who visited more than once	5.9	5.0	5.2
Number of children who received at least one vaccine	11703	9487	21190
Reasons for more than one visit			
Service provider absent	30.3	30.4	27.1
Vaccine not available	44.2	37.4	44.6
Long waiting time	25.3	35.8	26.2
Others	5.5	7.0	7.2
Number of children who visited more than once	668	437	1105

unweighted cases

Table 4.21: Percentage of children aged 12-23 months who had to visit more than once for immunization according to the reasons for more than one visit for last immunization segregated by States/UT

States/UT	Percent visited More than once	Number of Children who received at least one vaccine	Reasons for more than one visit				Number of children who visited more than once#
			Service provider absent	Vaccine not available	Long waiting time	Others	
Andhra Pradesh	10.0	883	24.5	24.2	57.9	1.0	81
Arunachal Pradesh	8.5	451	45.8	24.6	32.9	7.3	41
Assam	4.2	799	18.9	31.0	35.0	16.8	39
Bihar	3.0	953	42.1	29.5	6.0	23.3	37
Chhattisgarh	3.9	506	32.8	0.8	34.5	31.8	18@
Delhi	7.6	558	19.5	50.8	52.2	0.0	47
Goa	0.6	534	0.0	62.1	37.9	0.0	5@
Gujarat	4.6	772	47.1	36.1	25.2	1.1	35
Haryana	8.3	612	40.9	58.7	36.3	1.5	50
Himachal Pradesh	2.2	542	19.7	47.1	14.7	18.5	11@

Table 4.21: Contd...

States/UT	Percent visited More than once	Number of Children who received at least one vaccine	Reasons for more than one visit				Number of children who visited more than once#
			Service provider absent	Vaccine not available	Long waiting time	Others	
Jammu & Kashmir	7.2	558	20.5	23.5	57.9	7.9	42
Jharkhand	1.7	604	42.6	19.8	37.7	0.0	9@
Karnataka	3.8	747	67.1	18.8	9.1	6.1	21@
Kerala	9.8	749	18.1	21.9	69.4	0.0	80
Madhya Pradesh	2.7	991	42.7	15.3	14.9	29.4	38
Maharashtra	5.2	993	17.7	53.9	21.8	9.5	47
Manipur	19.5	578	64.0	29.3	15.7	1.7	80
Meghalaya	3.4	548	39.8	37.0	16.2	11.4	20@
Mizoram	11.7	571	4.6	81.7	10.7	2.9	82
Nagaland	8.2	453	36.8	45.8	11.4	8.6	26
Orissa	1.4	877	59.4	16.0	0.0	24.6	6@
Punjab	0.4	555	0.0	85.5	0.0	14.5	5@
Rajasthan	1.4	785	9.0	54.1	46.5	0.0	12@
Sikkim	2.4	526	70.2	34.1	0.0	0.0	15@
Tamil Nadu	0.6	1028	16.7	14.8	6.9	61.6	9@
Tripura	7.4	592	38.3	42.0	19.7	0.0	30
Uttar Pradesh	4.4	908	23.6	45.2	20.2	11.7	36
Uttarakhand	2.3	534	45.4	43.6	10.7	18.4	13@
West Bengal	14.5	802	17.9	79.6	1.3	1.9	91
UTs combined	7.1	1181	27.8	21.5	54.2	1.4	79
Total	5.2	21190	27.1	44.6	26.2	7.2	1105

@ Base is less than 25
unweighted cases

4.11 USE OF SAFE INJECTION

The National policy prescribes one auto-disable syringe (AD syringe) to be used per immunization. Table 4.22 presents State-wise percentage of children who received at least

one injectable vaccine from a public facility by safe injection as reported by the mother. Analysis of the data indicates that in almost all the States both at government health facility and at outreach centres, a large majority of the children were vaccinated using safe injection or AD syringes.

Table 4.22: Percentage of children aged 12-23 months who received at least one injectable vaccine from public facility according to safe injection practices – Total

States/UT	Government facility		Outreach site	
	Percentage receiving safe injection	Number of children#*	Percentage receiving safe injection	Number of children #**
Andhra Pradesh	98.6	441	99.4	369
Arunachal Pradesh	96.3	312	95.3	88
Assam	93.9	319	91.2	371
Bihar	99.7	223	98.7	549
Chhattisgarh	84.6	106	83.1	303
Delhi	97.2	261	97.2	128
Goa	94.3	273	99.2	172
Gujarat	93.7	264	96.6	356
Haryana	68.4	211	80.7	229
Himachal Pradesh	98.0	310	99.4	201
Jammu & Kashmir	94.9	395	99.1	131
Jharkhand	100.0	91	98.9	381
Karnataka	98.6	378	98.0	272
Kerala	96.4	517	98.6	37
Madhya Pradesh	89.3	210	94.8	606
Maharashtra	98.2	379	97.3	491
Manipur	99.2	368	97.8	91
Meghalaya	94.6	352	79.3	121
Mizoram	94.3	17	96.9	489
Nagaland	91.1	273	90.0	102
Orissa	99.2	231	98.6	511
Punjab	96.0	273	93.4	202
Rajasthan	94.9	308	95.2	416
Sikkim	98.5	248	99.0	130
Tamil Nadu	91.4	769	97.4	43
Tripura	98.7	356	97.6	114
Uttar Pradesh	94.6	274	95.1	492
Uttarakhand	97.6	198	96.1	265
West Bengal	94.1	182	95.4	507
UTs combined	95.2	732	99.5	270
Total	95.1	9271	95.8	8437

* Children vaccinated in Govt. Health Facility

** Children vaccinated in outreach sites

unweighted cases

4.12 REASONS FOR NON-IMMUNIZATION

Mothers whose children did not receive any or some of the vaccinations were probed further for the reasons for no-immunization and partial immunization respectively. Table 4.23 shows that 28.2 percent mothers whose child was partially or not immunized reported that they did not feel the need for immunization. Another 26.3 percent did not know what vaccine were needed and when. About 10.8 percent did not know the place of immunization. The pattern of response however differed by place of residence.

Similar reasons were cited also by mothers whose child did not receive any vaccination. For instance, 29.8 percent mothers reported that they did not feel the need for immunization and 32.4 percent reported that they did not know about the vaccine and the age at which they were to be given. 24.4 percent were afraid of its side effects. Around 16 percent of mothers were unaware of the place of immunization.

There were differences in the reasons cited for 'partial' or 'no' immunization. Lack of knowledge about *what vaccines were needed* and *when to be given* was responsible for high proportion of 'partial' immunization while *fear of side effects* was one of the major reasons for 'no' immunization.

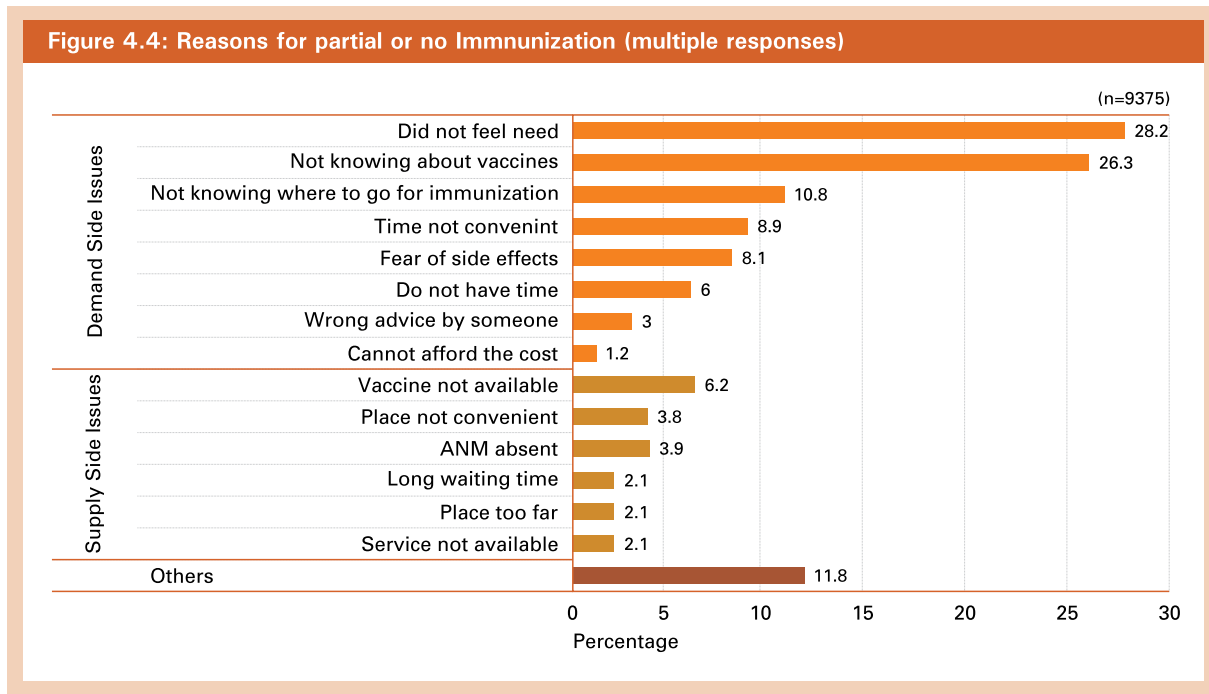


Table 4.23: Percentage of children aged 12 -23 months who received no vaccination or partial vaccination according to the reasons for none or partial immunization

Reasons	Rural	Urban	Total
Partial Immunization			
Did not feel need for immunization	25.4	36.2	28.1
Did not know what vaccines were needed and when	26.5	18.9	24.6
Did not know where to take child for immunization	10.5	8.8	10.1
Fear of side effects	5.2	4.3	5.0
Service not available when required	1.9	1.0	1.6
Could not afford the cost	0.9	1.1	1.0
Place too far to take the child	1.3	2.2	1.6
Did not have time to take child for immunization	6.1	7.3	6.4
Advised against immunization by someone	2.7	2.1	2.5
ANM absent	3.9	1.7	3.3
Vaccine not available	7.7	4.5	6.9
Time not convenient	9.9	8.9	9.7
Place not convenient	3.9	2.8	3.6
Long waiting time	2.2	2.6	2.3
Others	11.6	13.3	12.0
Number of children partially immunised# (n)	4386	3336	7722
No Immunization			
Did not feel need for immunization	28.4	35.8	29.8
Did not know what vaccines were needed and when	31.3	37.1	32.4
Did not know where to take child for immunization	16.2	15.8	16.1
Fear of side effects	24.6	23.7	24.4
Service not available when required	5.6	0.8	4.7
Could not afford the cost	3.0	1.7	2.7
Place too far to take the child	5.2	1.8	4.6
Did not have time to take child for immunization	4.1	7.8	4.8
Advised against immunization by someone	5.6	5.2	5.5
ANM absent	6.3	1.7	5.4
Vaccine not available	3.8	2.4	3.5
Time not convenient	4.8	6.7	5.1
Place not convenient	5.2	4.1	5.0
Long waiting time	0.9	1.8	1.1
Others	10.3	11.3	10.5
Number of children not immunised# (n)	1047	606	1653

Table 4.23: Contd...

Reasons	Rural	Urban	Total
Both Partial Immunization or No immunization			
Did not feel need for immunization	26.0	36.1	28.2
Did not know what vaccines were needed and when	27.4	21.3	26.3
Did not know where to take child for immunization	11.5	9.7	10.8
Fear of side effects	8.7	6.8	8.1
Service not available when required	2.5	1.0	2.1
Could not afford the cost	1.3	1.2	1.2
Place too far to take the child	2.0	2.1	2.1
Did not have time to take child for immunization	5.7	7.4	6.0
Advised against immunization by some one	3.2	2.5	3.0
ANM absent	4.3	1.7	3.9
Vaccine not available	7.0	4.2	6.2
Time not convenient	9.0	8.6	8.9
Place not convenient	4.2	3.0	3.9
Long waiting time	1.9	2.5	2.1
Others	11.4	13.0	11.8
Number of children received partial or no immunization# (n)	5433	3942	9375

unweighted cases



Chapter 5

Maternal Care Services

The Government of India launched the National Rural Health Mission (NRHM) in 2007. One important component of NRHM is to improve the availability and accessibility of maternal health care services to rural women to ensure safe motherhood. The maternal care services include antenatal care, delivery care, and postnatal care. Antenatal care services include provision of at least three antenatal care visits; iron folic acid tablets; two injections of tetanus toxoid; detection and treatment of anaemia and management and referral of high risk pregnancies. Delivery care services include skilled birth attendance for all deliveries and provision of emergency obstetric care to those with complications. Postnatal care services include checking mother and newborn; follow-up visits to women and newborns; and advice on family planning, breastfeeding and newborn care. In the present survey all women who delivered during 12 months preceding the survey, in sampled households, were asked about the details of antenatal, natal and postnatal care they received. Besides, information regarding awareness of the JSY scheme and assistance received during it was also collected.

5.1 BACKGROUND CHARACTERISTICS OF WOMEN SELECTED FOR MATERNAL CARE

Table 5.1 presents the percentage distribution of women who delivered during the past 12 months from the date of survey (recently-delivered women), by age and education. The analysis of the age distribution of recently-delivered women shows that

6.6 percent were less than 20 years, 44 percent were in the age group of 20-24 years, 45.2 percent in the age group of 25-34 years and 4 percent were more than 35 years. The proportion of women in the younger age group of <25 years was relatively higher in rural areas compared to urban areas.

An analysis of the data according to educational background of the respondents indicates that

34.3 percent were illiterate. The corresponding figures for rural and urban areas were 40.2 and 19.0 percent, respectively. 28.4 percent of the recently- delivered women had passed high school. Urban women were reportedly more educated than rural women. For instance, 45.0 percent of urban women had passed high school as compared to 22.1 percent of rural women (Table 5.1).

Table 5.1: Percentage distribution of women who delivered during 12 months preceding the survey according to selected background characteristics

Profile of women	Rural	Urban	Total
Age (in years)			
15-19	6.9	5.8	6.6
20-24	44.8	41.8	44.0
25-34	44.0	48.3	45.2
35-44	4.0	4.0	4.0
45+	0.2	0.1	0.2
Education			
No education	40.2	19.0	34.3
<5 years complete	6.0	5.0	5.7
5-7 years complete	16.4	15.0	16.0
8-9 years complete	15.3	16.0	15.5
10-11 years complete	12.0	18.8	13.9
12 or more years complete	10.1	26.2	14.5
Number of Women# (n)	12849	10135	22984

unweighted cases

5.2 REGISTRATION OF PREGNANCY

Women are encouraged to register with health functionaries as soon as their pregnancy is confirmed in order to receive antenatal care services and advice. All women who had delivered during the last one year prior to the survey were asked about the registration.

Table 5.2 shows that 91.9 percent of women overall registered their last pregnancy. The majority of women registered their pregnancy with government health functionaries such as government doctor (38.7 percent), ANM (14.8 percent) and *Anganwadi* worker (14.9 percent). Slightly more urban women (94.4 percent) registered their pregnancies than their rural counterparts (91.1 percent).

Table 5.2: Percentage of women, who delivered during 12 months preceding the survey, according to pregnancy registration

Characteristics	Rural	Urban	Total
Pregnancy registration			
Percentage registered during last pregnancy	91.1	94.4	91.9
Registered with			
Government doctor	35.6	47.1	38.7
ANM	17.8	6.2	14.8
<i>Anganwadi</i> worker	18.9	6.5	14.9
ASHA	2.5	0.3	2.0
Private doctor	15.6	33.8	20.9
Others	0.7	0.5	0.6
Number of women who delivered during 12 months preceding the survey# (n)	12,849	10,135	22,984

unweighted cases

Although pregnancy registration was very high at the national level, variations did exist across States. States like Goa, Himachal Pradesh, Chhattisgarh, Orissa, West Bengal and Union Territories reported around 98 percent pregnancy registration. The lowest registration was reported in Nagaland (44.3 percent). It was 70.8 percent in Arunachal Pradesh, 82.8 percent in Uttarakhand, and 86.8 percent in Uttar Pradesh. The table further indicates that there were State differentials in the type of health functionaries with whom the women registered for antenatal services. For instance, more than half of the recently delivered women in Arunachal Pradesh, Delhi, Jammu & Kashmir, Manipur, Meghalaya, Punjab, Sikkim, Tamil Nadu, Tripura and Union Territories registered with a government doctor. More registration with private doctors was reported in Andhra Pradesh, Bihar, Delhi, Goa, Gujarat, Jharkhand, Kerala and Maharashtra. In Himachal Pradesh, Uttar Pradesh, Uttarakhand and West Bengal more women reportedly registered with an ANM (Table 5.3a).

Rural-urban differences in the pattern of pregnancy registration existed across States (Table 5.3b & 5.3c). Rural women in most of the States registered their pregnancy with either doctors (government and private) or an ANM or an *Anganwadi* worker, while in urban areas most women across States preferred registering with government or private doctors. In the rural areas of Delhi, J&K, Sikkim, Tamil Nadu and all UTs more than 60 percent of mothers had registered their last pregnancy with the government doctors (Table 5.3b). Further, registration with government and private doctors varies across States. For example, in urban areas of Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Sikkim and Tripura more than 60 percent of the women registered with a government doctor and in Bihar, Goa, Jharkhand and Kerala more than 50 percent of the women registered with a private doctor (Table 5.3c).

Table 5.3a: Percentage of women who delivered during 12 months preceding the survey according to the place of registration of pregnancy according to States/UTs - Total

States/UTs	Not registered	Registered with						Number of women#
		Govt. Doctor	ANM	AWW	ASHA	Private Doctor	Others	
Andhra Pradesh	5.0	31.8	9.8	21.7	0.7	31.0	0.0	896
Arunachal Pradesh	29.2	52.0	8.1	3.0	3.5	4.3	0.0	569
Assam	7.0	39.7	20.5	4.7	22.4	5.7	0.0	881
Bihar	8.0	15.5	11.0	26.8	3.5	34.7	0.5	1066
Chhattisgarh	1.5	31.0	7.5	39.7	0.1	19.8	0.5	533
Delhi	7.5	59.2	2.6	0.5	0.0	30.3	0.0	589
Goa	0.4	45.5	1.2	4.2	0.0	48.6	0.1	543
Gujarat	4.4	21.7	16.4	24.0	0.6	31.5	1.4	800
Haryana	5.8	37.0	26.4	12.7	0.0	18	0.0	639
Himachal Pradesh	1.7	47.4	36.5	8.2	0.0	6.2	0.0	563
Jammu & Kashmir	10.0	63.3	5.0	7.2	4.5	10.1	0.0	622
Jharkhand	5.9	14.4	9.2	29.5	0.9	38.6	1.6	637
Karnataka	4.7	42.2	6.5	28.6	0.2	17.2	0.6	789
Kerala	7.1	44.5	0.9	0.3	0.4	46.6	0.3	832
Madhya Pradesh	4.8	30.9	15.3	37.5	0.3	10.7	0.5	1046
Maharashtra	3.6	30.8	5.3	28.6	0.0	30.9	0.7	1004
Manipur	10.1	53.2	0.0	0.9	4.1	26.0	5.7	629
Meghalaya	4.5	59.9	24.6	1.6	1.1	7.9	0.5	581
Mizoram	7.1	20.2	21.2	23.7	1.8	25.1	0.8	619
Nagaland	55.7	23.0	5.0	0.0	0.3	15.8	0.3	639
Orissa	1.8	18.7	14.4	50.7	4.5	9.8	0.0	947
Punjab	4.6	51.1	4.3	13.0	0.0	25.4	1.6	583
Rajasthan	10.8	30.5	27.6	21.2	1.1	8.7	0.0	908
Sikkim	6.7	73.4	12.6	4.0	1.3	1.7	0.2	537
Tamil Nadu	4.8	56.7	6.0	11.0	0.0	20.8	0.8	1104
Tripura	11.2	82.6	0.2	0.3	0.8	4.9	0.0	600
Uttar Pradesh	13.2	17.2	45.6	1.0	2.0	19.4	1.5	1135
Uttarakhand	17.2	19.4	42.8	0.8	2.0	17.8	0.0	580
West Bengal	1.7	34.5	38.7	0.1	0.0	24.8	0.1	838
UTs combined	2.2	56.2	6.9	9.5	0.3	23.9	1.1	1275
Total	8.1	38.7	14.8	14.9	2.0	20.9	0.6	22984

unweighted cases

Table 5.3b: Percentage of women who delivered during 12 months preceding the survey, according to the place of registration of pregnancy according to States/UT – Rural

States/UTs	Not registered	Registered with						Number of women#
		Govt. Doctor	ANM	AWW	ASHA	Private Doctor	Others	
Andhra Pradesh	5.4	30.5	11.2	26.7	0.9	25.3	0.0	545
Arunachal Pradesh	32.8	46.7	9.6	3.7	4.4	2.9	0.0	347
Assam	6.4	36.0	23.1	5.3	25.6	3.6	0.0	538
Bihar	8.7	14.6	11.3	28.6	3.8	32.4	0.5	642
Chhattisgarh	1.8	30.3	7.7	45.5	0.0	14.6	0.0	272
Delhi	3.0	71.1	2.1	1.9	0.0	22.0	0.0	58
Goa	0.1	48.5	1.4	6.9	0.0	42.9	0.2	266
Gujarat	4.7	18.7	21.5	31.4	0.4	21.8	1.5	469
Haryana	6.0	32.9	32.8	16.5	0.0	11.9	0.0	337
Himachal Pradesh	1.7	44.2	40.1	9.0	0.0	5.0	0.0	286
Jammu & Kashmir	8.4	64.6	5.8	9.2	5.9	6.1	0.0	321
Jharkhand	6.5	11.8	10.8	35.5	1.2	32.5	1.6	371
Karnataka	5.4	39.5	8.0	35.4	0.2	11.5	0.1	466
Kerala	7.6	45.5	1.2	0.4	0.5	44.7	0.0	500
Madhya Pradesh	6.2	26.6	19.2	39.7	0.5	7.3	0.7	626
Maharashtra	4.4	20.4	6.5	44.9	0.1	23.2	0.5	603
Manipur	11.6	48.5	0.0	1.2	5.6	25.3	7.7	365
Meghalaya	4.4	59.1	30.3	2.0	1.3	2.3	0.6	341
Mizoram	13.5	13.9	26.2	32.4	3.0	10.3	0.7	359
Nagaland	62.3	19.3	4.9	0.0	0.4	12.8	0.3	359
Orissa	1.5	16.1	16.7	54.6	5.2	6.0	0.0	590
Punjab	5.1	49.1	5.6	18.3	0.0	20.1	1.7	314
Rajasthan	11.7	24.9	32.6	25.1	1.2	4.6	0.0	553
Sikkim	7.3	71.2	14.1	4.4	1.5	1.3	0.2	329
Tamil Nadu	2.9	65.0	6.8	14.3	0.0	10.1	0.8	667
Tripura	11.9	83.5	0.0	0.3	0.8	3.5	0.0	360
Uttar Pradesh	13.8	14.9	51.8	1.3	2.6	13.9	1.7	687
Uttarakhand	21.3	16.1	50.6	0.8	2.1	9.2	0.0	294
West Bengal	0.8	28.3	48.4	0.2	0.0	22.1	0.1	518
UTs combined	2.7	60.0	6.7	13.7	0.0	15.9	1.1	466
Total	8.9	35.6	17.8	18.9	2.5	15.6	0.7	12849

unweighted cases

Table 5.3c: Percentage of women who delivered during 12 months preceding the survey according to the place of registration of pregnancy according to States/UT – Urban

States/UTs	Not registered	Registered with						Number of women#
		Govt. Doctor	ANM	AWW	ASHA	Private Doctor	Others	
Andhra Pradesh	4.0	35.4	6.2	8.5	0.0	46.0	0.0	351
Arunachal Pradesh	15.2	72.3	2.4	0.3	0.2	9.5	0.0	222
Assam	11.6	64.7	2.5	0.3	0.7	20.2	0.0	343
Bihar	2.1	22.8	8.4	11.1	0.8	54.2	0.5	424
Chhattisgarh	0.0	33.7	6.7	16.5	0.4	40.3	2.4	261
Delhi	7.8	58.3	2.6	0.4	0.0	30.9	0.0	531
Goa	0.8	42.4	1.0	1.5	0.0	54.3	0.0	277
Gujarat	4.0	26.7	7.9	11.7	0.8	47.8	1.2	331
Haryana	5.6	47.2	10.8	3.5	0.0	32.8	0.1	302
Himachal Pradesh	1.9	76.3	3.1	1.2	0.0	17.6	0.0	277
Jammu & Kashmir	14.8	59.2	2.7	0.9	0.3	22	0.0	301
Jharkhand	3.9	23.4	3.5	8.2	0.0	59.6	1.4	266
Karnataka	3.5	47.5	3.7	15.4	0.0	28.3	1.5	323
Kerala	5.5	41.6	0.0	0.0	0.0	51.9	1.1	332
Madhya Pradesh	0.8	43.1	4.5	31.4	0.0	20.1	0.0	420
Maharashtra	2.6	44.9	3.8	6.6	0.0	41.3	0.8	401
Manipur	6.0	66.3	0.0	0.0	0.0	27.7	0.0	264
Meghalaya	4.8	63.4	1.0	0.0	0.0	30.7	0.0	240
Mizoram	0.7	26.7	16.2	14.8	0.7	40.1	0.8	260
Nagaland	24.1	40.4	5.3	0.1	0.0	29.8	0.3	280
Orissa	3.5	33.9	1.8	28.6	0.9	31.3	0.0	357
Punjab	3.5	55.1	1.7	2.7	0.0	35.8	1.2	269
Rajasthan	8.0	48.9	11.4	8.7	0.8	22.1	0.0	355
Sikkim	2.3	90.9	0.3	1.1	0.0	5.3	0.0	208
Tamil Nadu	7.1	46.1	4.9	6.7	0.0	34.3	0.8	437
Tripura	7.9	78.7	1.1	0.0	0.9	11.4	0.0	240
Uttar Pradesh	10.8	25.9	21.9	0.0	0.0	40.7	0.8	448
Uttarakhand	5.5	28.9	20.1	1.0	1.6	42.8	0.1	286
West Bengal	3.8	50.4	13.9	0.0	0.0	31.8	0.1	320
UTs combined	2.2	53.5	7.3	3.4	0.5	32.4	0.8	809
Total	5.6	47.1	6.2	6.5	0.3	33.8	0.5	10135

unweighted cases

5.3 ANTENATAL CARE

Availing antenatal care services appropriately contributes to the prevention of maternal morbidity and mortality both among women and children. As part of antenatal care women receive two doses of tetanus toxoid vaccine, adequate amounts of iron and folic acid tablets, or syrup, to prevent and treat anaemia, and at least three ante-natal check-ups.

5.3.1 Antenatal Checkups

A pregnant woman can avail of an antenatal check-up by visiting a doctor or paramedical staff in a health facility or during home visits by a health worker or both. Women who had given birth during the past 12 months preceding the survey were asked whether they had received antenatal care. Table 5.4 shows that 90.4 percent of recently-delivered women received at least one antenatal check-up during their last pregnancy. The proportion of women who received at least one antenatal check-up was higher in urban areas (95.8 percent) compared to rural areas (88.3 percent).

The table further shows that at the national level, 68.7 percent women received three or more check-ups during the antenatal period. The proportion of women who received three or more antenatal check-ups was higher in urban (82.7 percent) than rural areas (63.3 percent). An analysis of the timings of the first antenatal check-up shows that 59.2 percent women received the first antenatal check-up in the first trimester. Urban women (70.4 percent) were more likely to receive ANC in the first trimester than rural women (54.9 percent). Further, with regard to the place of ANC services, data shows that the public sector was the main source for mothers receiving antenatal care services as 34.4 percent women got their ANC check-up done at government hospital, 12.8 percent in a sub-centre, 10.8 percent in a PHC and 11.1 percent in an *Anganwadi* centre. As

compared to this 37.7 percent women got their ANC check-up done at private hospital.

Rural-urban break-up of the data on sources of ANC shows that significantly higher percentage of women from urban areas received ANC check-ups from private doctors than their rural counterparts.

5.3.2 Iron and Folic Acid (IFA) Tablets

Nutritional deficiency in women is often increased during pregnancy because of the additional nutrient requirements of foetal growth. Iron deficiency anaemia is a threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight, lowered resistance to infections etc. Information was collected on whether the mother received and consumed IFA tablets or syrup during pregnancy.

Table 5.5 shows that 81.4 percent respondents in India reported to have received IFA tablets or syrup during the last pregnancy. The percentage of women receiving IFA supplements was comparatively more in urban (86.1 percent) than rural areas (79.6 percent). Only 36.5 percent women received 100 tablets or syrup for 3 months. With regards to the consumption of IFA supplements, 31.0 percent consumed tablets or syrup for 100 or more days. Consumption of more than 100 tablets was higher in urban areas (39.7 percent) than in rural areas (27.6 percent).

Women who received IFA tablets were asked about the source of supply. About 28.1 percent women reportedly received them from the government hospital followed by ANM/AWC/ASHA (25.1 percent) and private hospital/clinic (19.0 percent). In rural areas, the government health facilities including government hospital, PHC/CHC, ANM/AWC were the major sources of IFA tablets. On the other hand, in urban areas both government and private health facilities were equally preferred sources of IFA tablets (Table 5.5).

Table 5.4: Percentage of women who delivered during 12 months preceding the survey, according to number of ANC received and place of last ANC

Characteristics	Rural	Urban	Total
Percentage who received any ANC during last pregnancy	88.3	95.8	90.4
No. of times received ANC			
None	11.7	4.2	9.6
1	6.5	2.5	5.4
2	17.9	9.1	15.5
3	17.0	12.1	15.6
4 or more	46.3	70.6	53.1
Don't remember	0.6	1.5	0.9
Stage of pregnancy at the time of first ANC			
No antenatal check up	11.7	4.2	9.6
First trimester	54.9	70.4	59.2
Second trimester	27.9	21.0	26.0
Third trimester	4.8	3.3	4.4
Number of women# (n)	12849	10135	22984
Place of ANC during last pregnancy			
<i>Anganwadi</i> centre	14.9	3.2	11.1
Sub-centre	17.1	2.6	12.8
PHC	13.2	5.1	10.8
UHC/UHP/UFWC	0.3	1.5	0.6
Dispensary	0.7	1.5	0.9
AYUSH Hospital/clinic	0.1	0.2	0.1
Govt. Hospital	29.2	46.7	34.4
Other Public sector Health Facility	0.1	0.0	0.1
NGO/Trust Hospital/clinic	0.5	0.6	0.5
Private Hospital/clinic	32.7	49.7	37.7
Private AYUSH Hospital/clinic	0.4	0.7	0.5
Other Private Sector Health Facility	0.8	1.3	1.0
Home/Parent's Home/Other Home	2.8	1.5	2.5
Others	0.8	0.3	0.7
Number of women who received at least one ANC# (n)	11427	9656	21083

unweighted cases

Table 5.5: Percentage of women who delivered during 12 months preceding the survey and who received iron supplementation and its sources

Characteristics	Rural	Urban	Total
Percentage who received/bought iron and folic acid tablets/syrup during last pregnancy	79.6	86.1	81.4
Whether received IFA tablets or syrup bottles or both			
Tablets	66.8	67.1	66.9
Syrup bottles	1.0	1.4	1.1
Both	11.7	17.6	13.4
No. of IFA tablets received/bought			
<= 30	16.0	13.9	15.4
31-99	28.6	28.0	28.4
>= 100	34.0	42.8	36.5
No. of IFA syrup bottles received/bought			
1	4.8	7.3	5.5
2	4.3	6.1	4.8
3+	3.6	5.6	4.1
No. of days tablets/syrup consumed			
<= 30	18.9	14.1	17.6
31-99	25.1	25.2	25.1
>= 100	27.6	39.7	31.0
None	28.4	21.0	26.3
Number of women# (n)	12849	10135	22984
No. of days tablets/syrup consumed			
Govt. Hospital	23.4	39.4	28.1
Dispensary	1.2	2.7	1.7
UHC/UHP/UFWC	0.2	0.9	0.4
PHC/CHC	14.4	7.0	12.2
Sub-centre	15.0	2.3	11.2
Anganwadi centre/ASHA/ANM	42.2	4.3	25.1
AYUSH Hospital/clinic	0.2	0.2	0.2
Other Public sector Health Facility	0.3	0.4	0.3
NGO/Trust Hospital/clinic	0.5	0.4	0.4
Private Hospital/clinic	15.4	27.7	19.0
Private AYUSH Hospital/clinic	0.2	0.6	0.3
Other Private Sector Health Facility	7.7	20.6	11.5
Others	1.2	2.5	1.5
Number of women received/bought IFA tablets/syrup#	10656	8785	19441

unweighted cases

5.3.3 Antenatal Care according to Background Characteristics

There were substantial differences in the reported number of ANC visits, TT injections given, IFA tablets received and consumed by place of residence, mother's education, social group and wealth index group. Table 5.6 shows that among women who had passed higher secondary, 98.2 percent received 3 or more ANC visits, while it was 45.8 percent for illiterate women. Among the social groups, 61.4 percent women from scheduled tribes received 3 or more ANC visits as compared to 77.2 percent women from other castes. Only 46.7 percent of the women from the lowest quintile received at least 3 ANC visits. This percentage increased to 88.5 for women from the highest quintile. Similar differentials were found for at least 2 TT injections and IFA supplements received and consumed.

A woman is considered to have full ANC if she gets at least three ANC, at least one TT injection and has consumed 100+ IFA tablets. Table 5.6 indicates that 26.5 percent women at all-India level had full ANC. The proportion of women with full ANC was more in urban (36.1 percent) than rural (22.8 percent) areas. It increased with the rise in educational level of women from 12.0 percent for illiterate women to 50.5 percent for women who had passed senior secondary. It also increased with the increase in wealth from lowest wealth quintile (11.5 percent) to highest quintile (47.4 percent).

5.3.4 Antenatal Care according to States

Table 5.7a provides State-wise data on the coverage of antenatal care services received by women during their last pregnancy. The utilization of antenatal care services differed greatly among States. The percentage of women receiving at least 3 antenatal check-ups ranged from 29.4 percent in Nagaland to 97.7 percent in Goa. Consumption of IFA tablets or syrup was 31.0 percent at the national level. This percentage was 5.4 in Nagaland and 6.7 percent in Bihar. The consumption of IFA tablets/syrup was more than 40 percent in 12 States.

The percentage of women with full ANC was highest in Kerala (77.9 percent), followed by Goa (53.4 percent), Andhra Pradesh (46.2 percent), Gujarat (45.7 percent), Tamil Nadu (44.1 percent), Delhi (41.6 percent), Jammu & Kashmir (43.5 percent), Haryana (42.9 percent) and Karnataka (40.2 percent). The table further shows that full ANC coverage was below 20 percent in the States of Bihar, Jharkhand, Madhya Pradesh, Nagaland, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal.

The analysis was further done separately for rural and urban areas according to States. Tables 5.7b and 5.7c show similar trend of the receiving of antenatal care services such as number of antenatal check-ups, TT injections and consumption of IFA tablets/syrup.

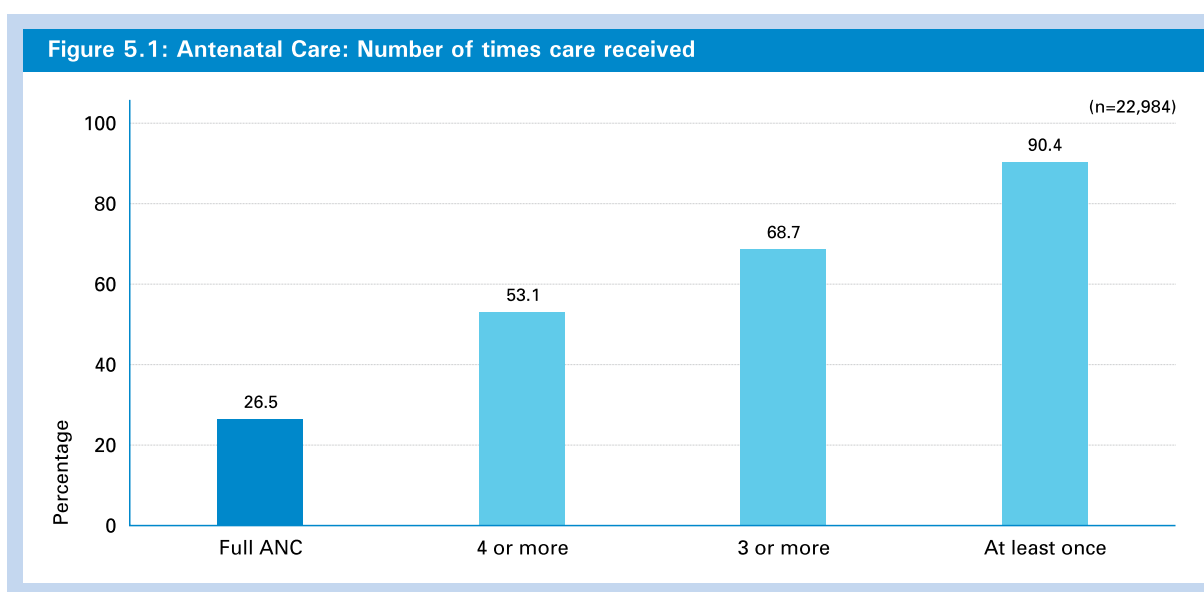


Table 5.6: Percentage of women who delivered during 12 months preceding the survey and received antenatal care, TT injections and IFA tablets according to selected background characteristics

Background Characteristics	Received Antenatal Check ups				TT injections				IFA tablets/syrup for 100+ days		Full ANC*	Number of women#
	0	At least one	3+	4+	0	1	2+	Received	Consumed			
Whether received IFA tablets or syrup bottles or both												
15-19	8.2	91.4	72.7	55.7	5.2	4.4	90.5	37.2	25.1	21.6	1165	
20-24	8.3	91.0	71.8	56.5	5.6	6.4	88.0	40.6	30.7	26.1	8835	
25-34	9.7	89.2	67.3	51.5	6.7	7.1	86.2	42.4	33.3	28.7	11910	
35-44	22.9	75.7	45.1	30.7	14.4	7.5	78.2	25.1	17.8	14.7	1043	
45+	31.3	67.8	20.6	24.5	0.5	54.5	45.0	45.2	26.1	2.6	31	
Residence												
Rural	11.7	87.7	63.3	46.3	7.0	7.1	85.9	37.5	27.6	22.8	12849	
Urban	4.2	94.4	82.7	70.6	4.8	5.8	89.4	48.5	39.7	36.1	10135	
Mother's Education												
No education	20.3	79.2	45.8	27.7	11.3	8.6	80.1	25.3	17.2	12.0	5525	
<5 years completed	7.0	92.4	71.3	51.3	6.6	9.4	84.0	35.2	26.0	22.1	1208	
5-7 years completed	6.3	92.8	74.8	58.4	4.7	6.4	88.9	39.1	28.7	25.2	3631	
8-9 years completed	4.0	95.2	77.5	59.8	3.1	6.9	89.9	41.8	31.8	27.0	3914	
10-11 years completed	2.2	96.4	85.9	73.7	3.8	4.8	91.4	54.6	43.7	39.8	3959	
12 or more years completed	1.9	96.8	98.2	80.8	2.7	3.3	94.0	65.4	54.9	50.5	4747	
Religious Group												
Hinduism	9.2	90.1	69.4	53.9	5.9	7.0	87.2	41.5	31.7	27.0	16651	
Islam	12.5	86.2	62.6	46.4	8.4	5.6	86.0	33.6	25.5	22.0	3001	
Sikhism	5.4	94.2	74.8	55.4	5.6	2.3	92.1	43.5	34.7	29.5	397	
Christianity	8.0	88.1	74.9	64.2	10.2	7.1	82.7	49.1	40.5	36.6	2512	
Other religious groups	4.9	93.6	79.7	57.5	10.7	8.3	81.0	41.6	24.7	22.3	423	
Social Group												
Scheduled Caste	10.2	89.3	65.6	49.3	6.8	8.1	85.1	37.2	27.4	22.7	4167	
Scheduled Tribe	13.0	85.8	61.4	40.4	12.1	8.0	79.9	33.2	23.5	18.9	3900	
Other Backward Classes	11.6	87.5	66.0	51.8	6.1	6.2	87.7	39.1	30.8	26.7	8080	
Others	5.1	93.9	77.2	61.4	4.9	6.1	89.0	47.5	36.1	31.2	6837	
BPL status												
Have BPL card	8.9	90.2	68.7	53.7	5.9	5.7	88.4	39.9	30.7	26.6	7132	
Don't have BPL card	10.0	89.2	68.7	52.7	6.7	7.4	85.9	40.9	31.1	26.4	15852	
Wealth Index												
Lowest	18.7	80.9	46.7	27.2	9.3	8.5	82.1	26.3	16.5	11.5	4597	
Second	8.1	91.2	71.1	53.2	6.2	5.8	88.0	39.1	29.3	25.1	4596	
Middle	5.1	93.9	78.7	65.9	4.9	6.8	88.3	45.1	35.0	31.4	4603	
Fourth	4.2	94.5	83.5	71.1	4.9	6.4	88.7	50.4	40.6	36.5	4591	
Highest	1.7	97.0	88.5	78.9	3.2	4.1	92.7	60.4	52.3	47.4	4597	
Total	9.6	89.6	68.7	53.1	6.4	6.7	86.9	40.6	31.0	26.5	22984	

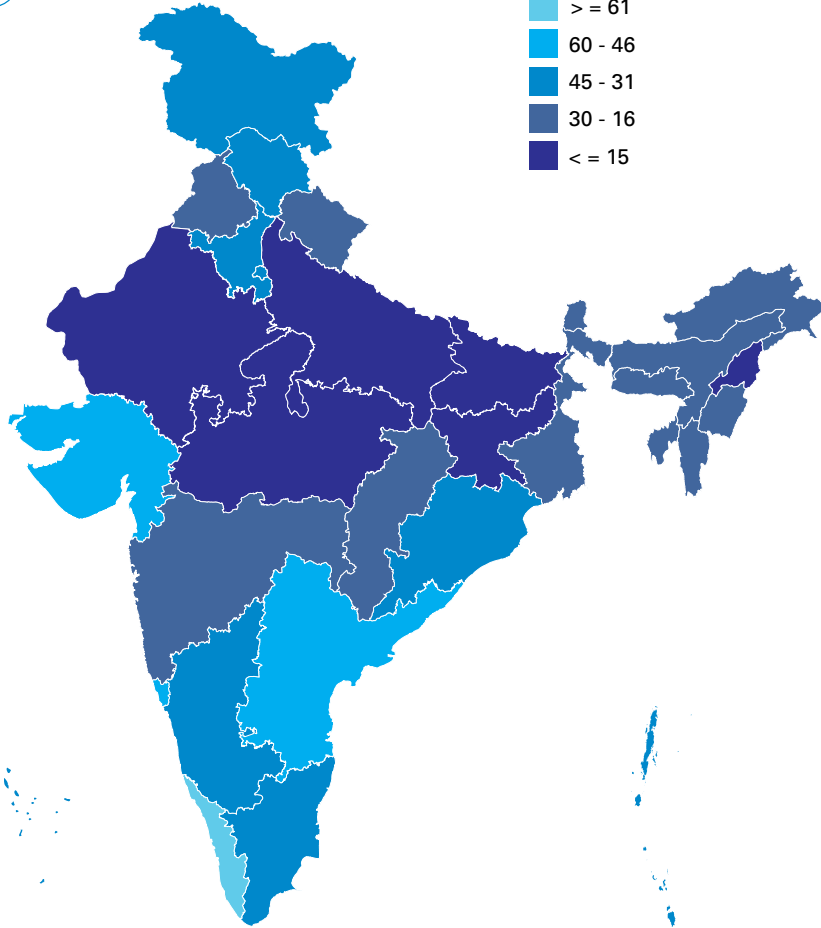
* Percentage of women who received 3+ ANC checkups, 1+ TT injection and consumed 100+ IFA tablets.
unweighted cases

Map 5.1: Full ANC



Legend (in %)

- > = 61
- 60 - 46
- 45 - 31
- 30 - 16
- < = 15



Map not to scale

Table 5.7a: Percentage of women who delivered during 12 months preceding the survey and who received antenatal care, TT injections and IFA tablets according to States/UT - Total

States/UT	Received Antenatal Check ups				TT injections			IFA tablets/syrup for 100+ days		Full ANC*	Number of women #
	0	At least one	3+	4+	0	1	2+	Received	Consumed		
Andhra Pradesh	0.5	99.5	97.0	92.9	4.4	1.7	93.9	56.4	49.1	46.2	896
Arunachal Pradesh	30.2	69.8	50.4	29.9	25.4	10.5	64.1	28.2	23.2	16.3	569
Assam	10.4	89.6	66.4	33.5	6.7	3.2	90.1	47.9	29.9	21.3	881
Bihar	15.7	84.3	33.8	14.7	4.8	9.3	85.9	8.4	6.7	4.5	1066
Chhattisgarh	1.3	98.7	71.4	41.6	3.2	8.5	88.4	31.0	26.9	19.9	533
Delhi	4.1	95.9	83.4	73.9	2.9	4.7	92.4	60.2	47.0	41.6	589
Goa	0.8	99.2	97.7	95.5	5.1	7.5	87.4	64.9	55.3	53.4	543
Gujarat	5.2	94.8	83.2	73.1	8.0	12.4	79.7	53.3	48.6	45.7	800
Haryana	10.6	89.4	68.6	57.2	4.2	6.8	88.9	56.8	49.1	42.9	639
Himachal Pradesh	8.7	91.3	67.4	44.6	2.8	14.1	83.1	65.7	49.2	39.2	563
Jammu & Kashmir	6.2	93.8	87.0	76.3	3.6	2.0	94.5	53.1	46.6	43.5	622
Jharkhand	12.4	87.6	57.5	25.7	4.9	5.3	89.8	30.1	14.0	10.9	637
Karnataka	2.5	97.5	91.3	78.1	3.8	4.9	91.3	52.7	43.9	40.2	789
Kerala	2.6	97.4	90.8	90.1	7.0	3.0	90.0	87.4	83.4	77.9	832
Madhya Pradesh	7.7	92.3	60.0	36.0	5.8	7.0	87.2	20.0	14.3	11.1	1046
Maharashtra	2.7	97.3	82.6	69.1	5.1	15.5	79.4	36.7	29.2	27.0	1004
Manipur	6.3	93.7	85.0	61.1	5.6	7.5	86.9	37.3	31.0	28.4	629
Meghalaya	4.9	95.1	71.0	42.9	5.8	17.7	76.6	55.6	35.5	28.1	581
Mizoram	8.1	91.9	79.0	65.7	7.4	19.0	73.7	34.8	25.5	21.7	619
Nagaland	46.3	53.7	29.4	11.8	37.3	16.2	46.6	8.7	5.4	3.5	639
Orissa	2.0	98	77.0	58.9	4.0	0.8	95.2	61.0	46.8	37.5	947
Punjab	4.7	95.3	73.4	48.1	3.0	4.4	92.6	41.3	33.9	29.4	583
Rajasthan	13.2	86.8	55.2	27.8	11.1	7.9	81.0	28.5	22.0	14.6	908
Sikkim	8.1	91.9	87.3	83.8	11.5	2.1	86.5	49.7	29.5	27.7	537
Tamil Nadu	1.5	98.5	92.6	89.0	4.4	3.1	92.5	55.1	48.0	44.1	1104
Tripura	9.1	90.9	83.1	80.9	8.1	1.1	90.9	37.1	22.3	21.5	600
Uttar Pradesh	28.4	71.6	38.2	23.4	12.1	7.3	80.6	34.1	19.5	12.4	1135
Uttarakhand	25.4	74.6	54.8	39.4	10.0	5.1	84.9	33.0	19.4	17.0	580
West Bengal	1.0	99	83.2	66.8	2.6	2.9	94.6	38.5	19.5	17.4	838
UTs combined	9.8	90.2	82.8	74.5	5.3	2.8	91.9	55.0	45.5	41.0	1275
Total	9.6	89.6	68.7	53.1	6.4	6.7	86.9	40.6	31.0	26.5	22984

* Percentage of women who received 3+ ANC checkups, 1+ TT injection and consumed 100+ IFA tablets.
unweighted cases

Table 5.7b: Percentage of women who delivered during 12 months preceding the survey and who received antenatal care, TT injections and IFA tablets according to States/UT - Rural

States/UT	Received Antenatal Check ups				TT injections			IFA tablets/syrup for 100+ days		Full ANC*	Number of women #
	0	At least one	3+	4+	0	1	2+	Received	Consumed		
Andhra Pradesh	0.5	99.5	97.0	92.4	4.3	1.8	93.9	54.5	47.6	45.4	545
Arunachal Pradesh	35.1	57.5	43.6	24.8	27.9	11.6	60.5	25.8	21.5	13.9	347
Assam	10.5	86.1	65.8	31.2	6.0	3.2	90.8	47.6	31.1	21.6	538
Bihar	16.8	83.1	31.5	12.8	5.1	9.1	85.8	7.1	5.5	3.3	642
Chhattisgarh	1.6	98.2	68.1	36.0	3.4	10.1	86.5	28.1	24.1	15.5	272
Delhi	3.0	97.0	87.4	82.2	6.0	0.4	93.6	83.6	60.7	58.5	58
Goa	1.4	98.6	97.4	95.6	4.1	10.2	85.7	62.0	54.7	52.6	266
Gujarat	6.0	92.7	81.6	70.6	7.1	15.0	78.0	54.7	49.9	47.0	469
Haryana	12.5	87.5	62.4	50.6	4.9	7.5	87.6	51.0	43.2	36.7	337
Himachal Pradesh	9.1	90.9	65.2	41.3	2.6	14.7	82.7	66.0	48.8	38.2	286
Jammu & Kashmir	5.5	92.6	86.9	75.3	4.1	2.2	93.7	50.8	44.1	42.3	321
Jharkhand	13.5	86.5	52.7	18.9	5.6	5.6	88.8	26.5	13.7	9.8	371
Karnataka	3.5	95.9	91.9	77.5	4.4	5.0	90.6	52.0	43.3	40.5	466
Kerala	2.5	92.5	91.5	90.6	7.1	3.8	89.1	87.0	84.2	78.6	500
Madhya Pradesh	9.3	90.1	56.7	31.5	6.3	7.0	86.7	15.4	9.9	7.5	626
Maharashtra	4.7	94.9	73.8	56.8	6.4	18.7	74.9	27.5	18.9	16.7	603
Manipur	8.4	89.4	80.8	53.4	7.2	8.6	84.2	33.6	28.5	25.1	365
Meghalaya	5.7	89.3	67.9	37.0	5.8	17.2	77.0	53.5	35.8	27.4	341
Mizoram	15.4	77.8	70.8	54.0	12.2	16.8	71.0	35.5	30.0	24.9	359
Nagaland	51.6	45.8	24.7	10.2	42.3	16.1	41.5	8.2	4.6	2.8	359
Orissa	2.0	98.0	75.2	56.1	4.2	0.6	95.2	60.5	45.5	35.3	590
Punjab	5.1	94.7	69.0	43.2	3.7	3.9	92.5	37.9	30.8	25.5	314
Rajasthan	15.9	83.9	51.9	22.8	12.6	6.0	81.5	27.4	21.0	13.2	553
Sikkim	9.0	89.7	86.8	83.2	12.5	1.6	85.8	49.3	29.3	27.4	329
Tamil Nadu	1.4	96.8	93.6	87.8	4.8	3.2	92.0	53.8	45.7	42.0	667
Tripura	10.9	84.9	82.3	80.5	9.3	0.8	89.8	35.9	20.0	19.4	360
Uttar Pradesh	32.0	68.0	31.4	18.1	13.2	7.9	78.9	32.7	16.7	8.9	687
Uttarakhand	32.0	68.0	46.7	30.8	12.5	5.2	82.2	29.2	13.3	10.9	294
West Bengal	0.2	99.8	81.6	63.3	1.8	3.1	95.1	39.9	19.7	17.0	518
UTs combined	20.1	77.7	73.4	64.2	8.0	3.0	89.0	51.3	39.5	34.4	466
Total	11.7	87.7	63.3	46.3	7.0	7.1	85.9	37.5	27.6	22.8	12849

* Percentage of women who received 3+ ANC checkups, 1+ TT injection and consumed 100+ IFA tablets.
unweighted cases

Table 5.7c: Percentage of women who delivered during 12 months preceding the survey and who received antenatal care, TT injections and IFA tablets according to States/UT - Urban

States/UT	Received Antenatal Check ups				TT injections			IFA tablets/syrup for 100+ days		Full ANC*	Number of women #
	0	At least one	3+	4+	0	1	2+	Received	Consumed		
Andhra Pradesh	0.5	99.0	97.0	94.3	4.8	1.4	93.8	61.6	53.1	48.4	351
Arunachal Pradesh	11.5	80.7	76.5	49.4	15.8	6.1	78.1	37.3	29.7	25.5	222
Assam	9.7	84.5	70.8	49.1	11.1	3.3	85.6	50.0	22.1	19.5	343
Bihar	6.7	93.3	54.0	31.2	2.4	10.5	87.2	19.8	17.0	14.6	424
Chhattisgarh	0.1	99.4	84.5	63.9	2.2	2.1	95.7	42.9	38.1	37.3	261
Delhi	4.2	93.6	83.2	73.3	2.7	5.0	92.3	58.5	46.0	40.3	531
Goa	0.1	99.9	98.0	95.5	6.1	4.9	89.0	67.9	55.8	54.2	277
Gujarat	4.0	93.8	85.8	77.2	9.5	8.0	82.5	50.9	46.3	43.6	331
Haryana	5.9	94.1	83.8	73.4	2.7	5.1	92.1	70.9	63.5	58.0	302
Himachal Pradesh	4.5	95.5	87.9	75.2	4.5	8.9	86.6	63.5	52.2	48.9	277
Jammu & Kashmir	8.4	91.1	87.2	79.1	1.8	1.3	96.9	60.1	54.2	47.2	301
Jharkhand	8.5	91.5	74.4	49.4	2.4	4.1	93.6	42.7	14.9	14.7	266
Karnataka	0.7	96.3	90.1	79.2	2.8	4.7	92.5	54.0	45.0	39.8	323
Kerala	3.1	91.3	88.7	88.7	6.8	0.5	92.7	88.6	81.2	76.0	332
Madhya Pradesh	3.5	95.2	68.9	48.5	4.5	7.0	88.5	33.0	26.3	21.3	420
Maharashtra	0.1	99.9	94.5	85.7	3.3	11.2	85.6	49.3	43.2	40.9	401
Manipur	0.5	99.2	96.7	82.4	1.3	4.5	94.2	47.4	38.0	37.8	264
Meghalaya	1.5	95.0	83.4	67.2	5.7	19.6	74.7	64.1	34.6	30.8	240
Mizoram	0.7	93.8	87.2	77.6	2.5	21.1	76.4	34.1	20.9	18.5	260
Nagaland	21.0	78.8	51.8	19.1	12.8	16.3	70.9	10.8	9.1	6.9	280
Orissa	1.8	98.2	87.0	74.4	2.9	2.1	94.9	64.1	54.7	49.6	357
Punjab	4.0	95.7	82.2	57.7	1.6	5.4	93.0	47.9	40.0	36.9	269
Rajasthan	4.4	93.1	65.8	44.0	6.5	14.0	79.6	31.9	25.0	19.3	355
Sikkim	0.9	98.3	91.1	88.3	2.9	5.7	91.5	52.5	31.4	29.7	208
Tamil Nadu	1.7	93.5	91.3	90.6	3.9	2.9	93.2	56.8	50.8	46.7	437
Tripura	0.6	90.8	87.1	82.8	2.0	2.1	95.9	42.8	33.3	31.5	240
Uttar Pradesh	14.6	85.4	64.4	43.5	8.1	5.0	87.0	39.4	30.0	25.8	448
Uttarakhand	6.4	93.6	78.4	64.4	2.8	4.8	92.4	43.9	36.9	34.8	286
West Bengal	3.1	96.2	87.2	75.9	4.5	2.2	93.4	34.8	18.9	18.4	320
UTs combined	2.5	94.7	89.3	83.0	4.0	2.7	93.3	59.7	51.5	46.9	809
Total	4.2	94.4	82.7	70.6	4.8	5.8	89.4	45.8	39.7	36.1	10135

* Percentage of women who received 3+ ANC checkups, 1+ TT injection and consumed 100+ IFA tablets.
unweighted cases

5.3.5 Components of Antenatal Checkups

The effectiveness of antenatal check-ups in ensuring safe motherhood depends on the tests and measurements done and the advice given during antenatal check-ups. The important services to be rendered during ANC include weight, height and blood pressure measurement, blood and urine tests and examination of abdomen and breast. In the present survey, women who received any ANC were further asked about the components of ANC at least once during their last pregnancy. Table 5.8 presents the percentage of women who had their last live/still birth 12 months preceding the survey and received specific components of ANC by place of residence.

More than 70 percent women reported that their weight was taken, blood pressure was checked, blood and urine were tested, abdomen and breast examined and they received nutritional advice. Nearly 69 percent women received delivery-related advice and 67.4 percent were told about the date of delivery. Higher proportion of women in urban areas received these services than their rural counterparts.

During the antenatal check-ups, women are supposed to be counselled for danger signs during antenatal period and told where to go for treatment when such problems arose (Table 5.8). When asked about danger signs of pregnancy, 29.7 percent of the women reported that they were informed about prolonged labour, vaginal bleeding (26.9 percent) and convulsion (20.3 percent). Around

58.3 percent of the respondents were informed about the place for treatment of pregnancy-related complications. Women were further asked about the type of advice received during antenatal check-ups. Analysis of the data shows that about 77.8 percent of the women were counselled for consumption of IFA tablets during pregnancy and 62-69 percent of the women received advice on breastfeeding practice, nutrition during pregnancy, need for institutional delivery and importance of maintaining cleanliness during pregnancy. About 58.2 percent of the women were told to keep their baby warm and 52.4 percent were advised to use iodized salt during pregnancy. Higher proportion of women from urban areas reportedly received such advice than the rural women.

5.3.6 Component of ANC according to States/UTs

There are large State variations in receiving different components of antenatal care. Table 5.9 indicates that less than half of the women reported weight measurement during pregnancy in 4 States viz., Bihar, Nagaland, Uttar Pradesh and Uttarakhand. Blood pressure check-up in different States ranged from 30.4 percent in Bihar to 99.0 percent in Goa. Blood pressure check-up was reported by more than 75 percent of the women in 19 States.

Blood and urine tests coverage ranged from 29 and 31 percent in Bihar to 99 percent each in Goa. Similar trends were reported for other components of ANC in various States.

Table 5.8: Percentage of women who delivered during 12 months preceding the survey according to specific components of antenatal care, counselling for danger signs during pregnancy and antenatal care advice received

Components of antenatal checkups	Rural	Urban	Total
Antenatal measurements/tests			
Weight measured	75.2	87.2	78.7
Height measured	35.3	49.6	39.5
Blood pressure checked	70.6	86.0	75.1
Blood tested	69.5	89.7	75.4
Urine tested	68.0	89.4	74.3
Abdomen examined	75.5	88.3	79.2
Breast examined	40.6	59.1	46.1
Sonogram/Ultrasound done	48.4	75.3	56.3
Delivery date told	62.3	79.7	67.4
Delivery advice given	65.4	77.2	68.9
Nutrition advice given	71.9	81.3	74.7
Antenatal Counselling for danger signs			
Vaginal bleeding	23.8	34.2	26.9
Convulsions	18.2	25.4	20.3
Prolonged labour	27.0	36.4	29.7
Percentage of mothers who were advised where to go for treatment in case of complications in pregnancy	56.2	63.2	58.3
Antenatal advice			
Breastfeeding	65.1	76.8	68.5
Keeping the baby warm	54.0	68.0	58.2
Need for cleanliness at the time of delivery	58.1	70.3	61.7
Family planning advice	45.1	56.6	48.5
Better nutrition for mother and child	63.8	73.2	66.6
Need for institutional delivery	62.1	72.8	65.2
Advice to use iodized salt	49.5	59.2	52.4
Counselling for IFA tablets	76.3	81.6	77.8
Number of women# (n)	11427	9656	21083

Base = All recently-delivered women who received at least one ANC
unweighted cases

Table 5.9: Percentage of women who delivered during 12 months preceding the survey in terms of specific components of antenatal care received according to States/UTs

States/UT	Percent who received at least one TT	Weight measured	Height measured	Blood pressure checked	Blood tested	Urine tested	Abdomen examined	Breast examined	Sonogram/ Ultrasound	Delivery date told	Delivery advice given	Nutrition advice given	Number of women # (n)
Andhra Pradesh	95.6	98.7	72.1	97.2	98.0	97.5	93.2	65.9	86.6	94.9	88.9	92.2	896
Arunachal Pradesh	74.6	65.8	27.7	64.2	63.2	61.7	49.2	32.4	46.8	57.3	50.3	45.2	569
Assam	93.3	80.7	55.3	79.0	64.9	59.7	56.5	40.0	31.5	72.5	71.9	67.8	881
Bihar	95.2	34.2	9.6	30.4	29.4	31.3	40.2	8.4	15.7	23.8	29.8	41.8	1066
Chhattisgarh	96.8	73.3	35.3	64.4	69.2	70.9	76.1	49.6	26.3	48.1	48.1	49.8	533
Delhi	97.1	85.5	36.8	79.1	80.0	84.1	78.0	38.5	65.8	69.3	70.7	75.1	589
Goa	94.9	99.0	46.9	99.0	99.0	98.5	97.4	80.0	95.1	92.7	86.6	91.1	543
Gujarat	92.0	91.5	59.2	85.2	84.9	74.2	72.0	59.3	55.2	70.2	66.1	74.0	800
Haryana	95.8	71.9	29.1	59.0	77.1	82.3	72.3	29.3	40.6	36.2	32.9	34.1	639
Himachal Pradesh	97.2	85.1	32.7	77.1	77.9	74.0	81.9	32.4	54.9	49.5	49.4	68.9	563
Jammu & Kashmir	96.4	75.4	53.7	89.8	91.4	89.0	75.6	61.4	76.9	75.8	59.0	58.0	622
Jharkhand	95.1	57.0	11.5	51.0	48.6	50.8	58.6	13.9	25.3	47.3	53.2	67.2	637
Karnataka	96.2	90.5	82.2	91.0	93.8	94.2	91.0	78.9	80.2	84.2	83.0	83.2	789
Kerala	93.0	96.5	86.0	96.0	96.4	96.1	95.0	92.6	93.5	95.9	95.4	95.9	832
Madhya Pradesh	94.2	63.2	18.4	50.4	60.7	51.4	56.8	31.4	24.8	46.8	50.1	53.0	1046
Maharashtra	94.9	91.7	35.1	87.5	88.7	87.7	84.7	69.7	70.4	78.6	75.6	79.3	1004
Manipur	94.4	90.7	80.4	92.2	90.8	92.1	89.7	77.6	77.3	90.9	84.6	80.0	629
Meghalaya	94.2	94.0	73.1	91.0	70.6	64.7	78.4	64.5	37.0	56.3	72.0	76.5	581
Mizoram	92.6	81.0	50.0	80.7	68.2	71.0	73.2	53.9	45.0	82.3	71.1	65.9	619
Nagaland	62.7	39.3	13.9	49.7	31.0	31.2	31.2	12.2	13.2	26.3	28.6	22.9	639
Orissa	96.0	77.5	12.8	75.0	66.9	67.7	78.9	11.2	37.3	60.4	52.9	61.2	947
Punjab	97.0	76.5	24.4	73.2	76.1	73.7	75.9	42.5	62.0	56.4	59.9	63.0	583
Rajasthan	88.9	61.3	19.7	59.7	63.9	66.5	68.1	33.2	46.2	51.0	53.5	54.2	908
Sikkim	88.5	91.1	40.8	89.2	86.1	85.8	72.1	17.0	45.4	86.3	75.8	63.0	537
Tamil Nadu	95.6	97.6	97.0	97.9	97.8	97.9	97.9	97.3	97.6	97.5	97.1	97.7	1104
Tripura	91.9	89.9	64.5	89.2	88.7	89.3	73.1	63.1	53.3	78.2	75.9	76.8	600
Uttar Pradesh	87.9	32.1	6.9	32.1	33.7	35.7	56.2	13.1	32.6	33.4	46.8	52.4	1135
Uttarakhand	90.0	37.4	6.8	36.9	52.8	53.1	52.9	12.2	45.4	42.6	42.7	47.4	580
West Bengal	97.4	90.2	13.9	83.2	71.3	65.6	73.6	16.0	36.1	67.1	62.7	78.8	838
UTs combined	94.7	88.8	68.1	87.3	87.5	82.9	83.6	76.1	78.6	79.6	78.0	79.3	1275
Total	93.4	78.7	39.5	75.1	75.4	74.3	79.2	46.1	56.3	67.4	68.9	74.7	22984

* Percentage of women who received 3+ ANC checkups, 1+ TT injection and consumed 100+ IFA tablets
unweighted cases

5.4 REASON FOR NOT RECEIVING THE ANC SERVICES

The women who did not receive any ANC services during their last pregnancy were asked for the reason for the same. More than half (56.1 percent) of the women did not feel it necessary to avail of

the services (Table 5.10). This was reported more by urban women (61.5 percent) compared with women from rural areas (55.3 percent). The other reasons for not availing ANC services were high cost (18.0 percent), lack of knowledge (14.7 percent) and objections by family (12.2 percent). About 8.9 percent of the women also reported accessibility as yet another reason for not availing the services.

Table 5.10: Percentage of women who delivered during 12 months preceding the survey and the reasons for not receiving antenatal check up

Reasons for not receiving ANC	Rural	Urban	Total
Not necessary	55.3	61.5	56.1
Not customary	6.3	3.6	5.9
Cost too much	18.7	12.7	18.0
Too far/No transport	9.8	2.6	8.9
Poor quality service	4.8	2.9	4.6
Service provider not available	6.5	2.0	6.0
Objections by family	11.8	14.8	12.2
Lack of knowledge	14.9	13.1	14.7
No time	8.7	19.3	10.0
Others	2.8	3.5	2.9
No. of women who did not receive any antenatal care#	1422	479	1901

#unweighted cases

5.5 ACCESSIBILITY OF ANC SERVICES

Accessibility could be one of the important factors which hinder utilization of the maternal care services. Women were specifically asked about the place of ANC services, distance (in Kms.) to the nearest health facility from their home, and the time taken to reach the facility. The information collected is presented in table 5.11. The table shows that more than 24.2 percent of the women reported government hospital as the nearest source for

antenatal care services, 21.3 percent reported PHC, and 20.0 percent sub-centre. Another 22.0 percent women reported private doctor/clinic as the nearest place for ANC services. More women in urban areas reported government and private hospital/clinic as the nearest source than rural women. One-third of the women reported that the facility was within one kilometre from their place of residence and another 31.0 percent reported that the facility was within 1-2 kilometres. Majority of the women (65.3 percent) further reported that it took less than 20 minutes to reach the facility.

Table 5.11: Percentage of women who delivered during last 12 months in terms of the accessibility to ANC services in the village/area

Responses	Rural	Urban	Total
Place for ANC services			
At home	1.8	1.1	1.6
In same village (through visiting ANM)	5.9	3.9	5.3
Sub centre	25.6	5.5	20.0
PHC	25.6	10.1	21.3
Govt. hospital	18.8	38.0	24.2
Private doctor/Hospital/Clinic	16.3	36.7	22.0
Others	2.7	2.0	2.5
DK/CS	3.2	2.8	3.1
Distance to nearest facility to receive ANC services (in Kms.)			
<1	31.5	36.2	32.8
1-2	26.6	42.3	31.0
3-4	13.7	9.9	12.6
5+	28.0	11.4	23.4
Mean distance	3.9	2.0	3.4
Time (in minutes) to reach the place to receive ANC Services			
<10	16.2	21.7	17.7
10-20	44.0	57.1	47.6
20-30	20.6	13.8	18.7
30-60	13.6	4.7	11.1
60+	3.7	1.0	2.9
DK/CS	1.9	1.9	1.9
Mean time	24.7	16.5	22.4
Number of women# (n)	12849	10135	22984

unweighted cases

5.6 COMPLICATION DURING PREGNANCY

Women were asked whether they had complications and what kind of complications was faced by them during their last pregnancy. Table 5.12 shows that about 71.8 percent of women faced at least one complication. The proportion of women who faced complications was slightly higher in urban (74.2 percent) than their counterparts in rural (70.8 percent) areas. The commonly faced problems by women during pregnancy were giddiness/paleness (37.6 percent) followed by swelling of face/feet (29.4 percent), excessive fatigue (25.4 percent), excessive vomiting

(28.1 percent), visual disturbances (12.5 percent) and weak or no movement of foetus (10.8 percent).

Women who faced at least one complication were probed about the source of treatment for the complications they faced. Analysis of data on treatment seeking behaviour shows that most of the women consulted private doctors (54.0 percent) followed by government doctors (29.4 percent) and the PHC (8.0 percent). Table 5.12 further shows that 32.8 percent women did not consult anybody. Comparatively higher percentage of women in rural areas (35.6 percent) did not consult anybody as compared to urban women (25.9 percent).

Table 5.12: Percentage of women who delivered during 12 months preceding the survey vis a vis type of complications experienced during pregnancy and source of treatment

Responses	Rural	Urban	Total
Faced any of the complications			
Swelling of hands, feet and face	28.6	31.5	29.4
Paleness/giddiness/weakness	38.7	34.9	37.6
Visual disturbances	12.9	11.4	12.5
Excessive fatigue	25.1	25.9	25.4
Convulsions, not from fever	7.2	7.7	7.4
Weak or no movement of foetus	10.6	11.1	10.8
Abnormal position of foetus	3.7	4.6	4.0
Malaria	4.1	4.7	4.2
Excessive vomiting	26.6	32	28.1
Hypertension/High BP	6.4	8.8	7.1
Jaundice	1.8	2.0	1.9
Excessive bleeding	2.7	3.3	2.9
Vaginal discharge	3.1	3.1	3.1
Others	18.6	23.3	20.2
Faced at least one complication	70.8	74.2	71.8
Faced no complication	29.2	25.8	28.2
Number of women# (n)	12849	10135	22984
Facility consulted during complications			
Govt Hospital	26.7	35.1	29.4
Dispensary	0.7	1.2	0.8
UHC/UHP/UFWC	6.7	3.3	5.7
PHC	10.2	3.2	8.0
Sub centre	5.7	0.9	4.2
AYUSH Hospital/clinic	0.4	0.4	0.4
NGO/Trust Hospital/clinic	1.0	0.5	0.8
Private Hospital/clinic	51.8	58.7	54
Private AYUSH Hospital/clinic	0.4	0.3	0.4
Others	2.4	0.6	1.8
Consulted anyone	64.4	74.1	67.2
Not Consulted	35.6	25.9	32.8
Number of women who faced at least one complication# (n)	5229	4945	10174

unweighted cases

5.7 NATAL CARE

5.7.1 Place of delivery and Assistance during delivery

An important thrust of the NRHM programme is to promote institutional deliveries or to conduct home deliveries under hygienic conditions and under the supervision of skilled health personnel. Women, who delivered during 12 months preceding the survey, were asked about the place of delivery, the person who assisted the delivery, and the nature of the delivery. Table 5.13 shows that 72.9 percent of births took place in some health institution, 47 percent of the women delivered in public institutions such as government hospital, PHC, CHC/rural hospital, sub-centre and 25.9 percent in a private hospital and clinic. Wide rural-urban differences were observed with regard to the place of delivery. For instance, 85.6 percent of the women in urban areas delivered in an institution as compared to 68.0 percent in rural areas.

Table 5.13 further shows that about 76.2 percent of the deliveries were reportedly attended by skilled

health personnel. The analysis of the data further shows that 17.5 percent of the deliveries were attended by traditional birth attendant and 6.1 percent by friends/relatives/neighbours. Overall, the proportion of deliveries attended by skilled health personnel was less in rural areas (71.1 percent) as compared to urban areas (87.9 percent).

Nearly 55.9 percent of the women were motivated by their husbands or other family member for institutional delivery, 48.1 percent by skilled birth attendant, 29.5 percent by doctors and 27.7 percent by relatives or friends. 13.8 percent of the women reported that ASHA motivated them for institution delivery. The percentage of rural women motivated by ASHA was 19.2 percent as compared to 2.7 percent in urban areas.

With regard to nature of delivery, almost 83.6 percent deliveries (87.5 percent in rural areas and 73.5 percent in urban areas) were normal and 15.1 percent were caesarean section. The proportion of caesarean section deliveries reported by women was much higher in urban areas (24.3 percent) than in rural areas (11.5 percent).

Table 5.13: Percentage of women who delivered during 12 months preceding the survey, the place of delivery and assistance during delivery

Responses	Rural	Urban	Total
Place of delivery			
Institutional deliveries	68.0	85.6	72.9
Govt. Hospital	26.0	37.2	29.1
Dispensary	0.1	0.4	0.2
UHC/UHP/UFWC	0.1	0.8	0.3
CHC/Rural Hospital	8.3	2.7	6.7
PHC	11.0	3.0	8.8
Sub-centre	1.6	0.3	1.2
AYUSH Hospital/Clinic	0.1	0.2	0.1
NGO/Trust Hospital/Clinic	0.5	0.6	0.5
Private Hospital/Clinic	20.2	40.3	25.8
Private AYUSH Hospital/Clinic	0.0	0.2	0.1
Non-Institutional deliveries			
On way to Hospital	0.2	0.1	0.2
At home	31.7	14.2	26.8
Others	0.1	0.1	0.1
Assistance during delivery			
Doctor	44.7	67.1	50.9
ANM/Nurse/LHV	26.4	20.5	24.7
Skilled worker	71.1	87.9	76.2

Table 5.13: Contd...

Responses	Rural	Urban	Total
<i>Dai</i>	20.5	9.8	17.5
Relatives/Friends	7.6	2.1	6.1
Others	0.5	0.2	0.4
None	0.3	0.3	0.3
Persons who facilitated/motivated for institutional delivery			
Doctor	26.7	35.1	29.5
ANM/Health worker	21.5	12.4	18.6
Skilled Birth Attendant	48.2	47.5	48.1
<i>Anganwadi</i> worker	8.8	3.0	6.9
ASHA	19.2	2.7	13.8
NGO/CBO	1.5	1.5	1.5
Husband, mother-in-law, mother	48.7	63.1	55.9
Relatives, Friends	25.9	31.5	27.7
Self	16.4	28.4	20.3
None	0.1	0.3	0.2
Others	0.8	0.6	0.7
Nature of last delivery			
Normal	87.5	73.5	83.6
Assisted delivery	1.0	2.2	1.4
Caesarean section	11.5	24.3	15.1
Number of women# (n)	12849	10135	22984

unweighted cases

5.7.2 Type of Delivery according to Place

Table 5.14 presents the analysis of data on nature of delivery according to place of delivery. The table indicates that more caesarean and assisted deliveries were reported in private sector than in public sector facilities. In order to understand the pattern of deliveries, the place of delivery was analysed according to background characteristics of the women. Analysis of the data shows that high proportion of younger women (below 35 years) went for institutional deliveries than older women (35+ years). Muslim women were less likely to

go for institutional deliveries than women from other religious groups. Further analysis shows that institutional deliveries were significantly higher among better educated women and those from households belonging to higher wealth quintiles. For instance, only 53.5 percent of the illiterate women delivered in institutions and this percentage increased to 93.1 percent among women who had passed higher secondary. The proportion of institutional deliveries increased from 55.4 percent among women in households with the lowest wealth quintile to 90.1 percent among women from households with the highest wealth quintile.

Table 5.14: Percentage of women who delivered during 12 months preceding the survey according to nature of delivery and place of delivery

Place of Delivery	Normal	Assisted	Caesarean	Number of women who delivered #
Govt. Sector	86.5	1.2	12.4	11715
Private Sector	62.5	2.9	34.6	5990
Home & others	100.0	0.0	0.0	5279
Total	83.8	1.3	14.9	22984

unweighted cases

Figure 5.2: Institutional Delivery by Background Characteristics

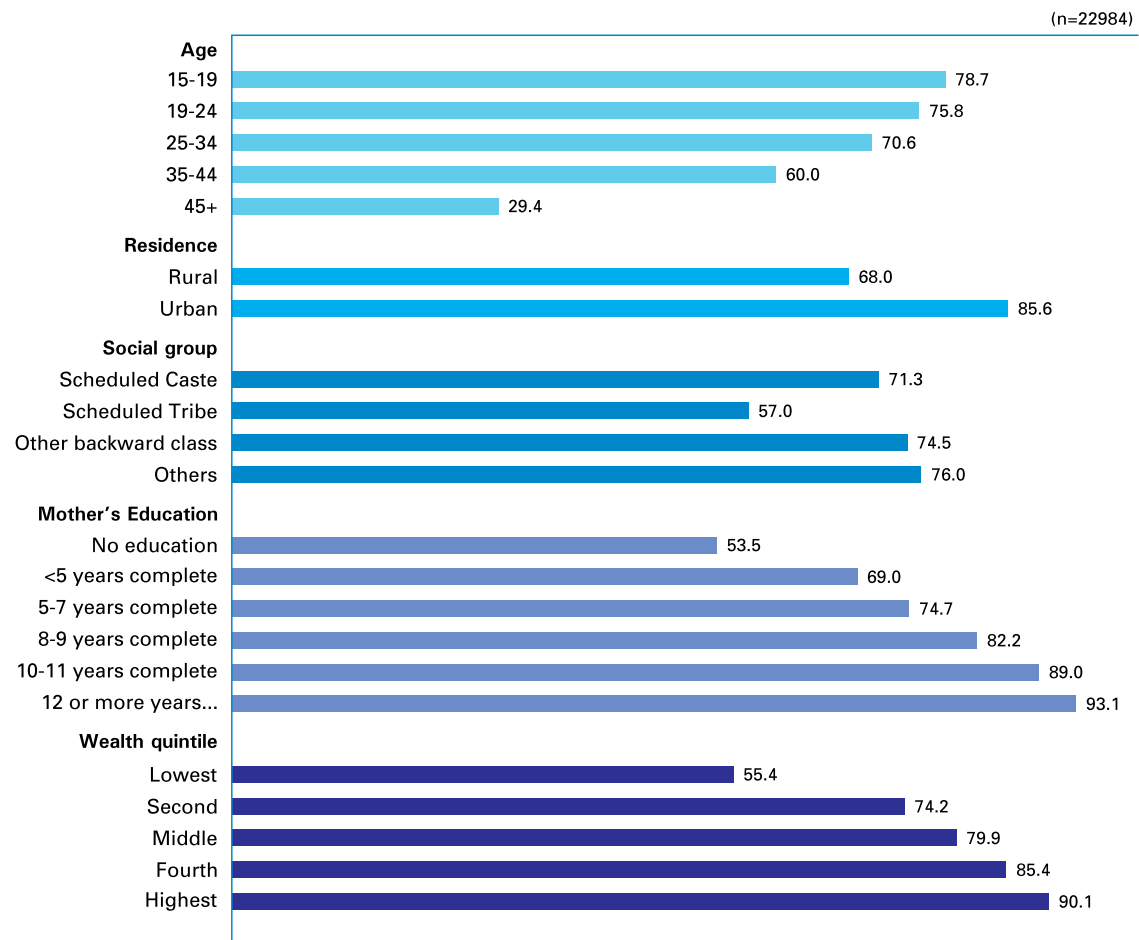


Figure 5.3: Place of Delivery

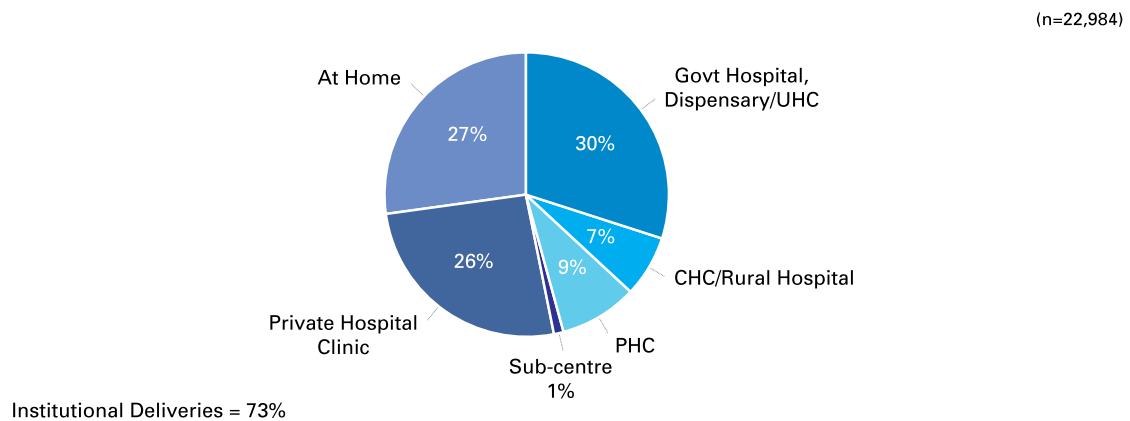


Table 5.15: Percentage of women who delivered during 12 months preceding the survey according to place of delivery and assistance received during home delivery according to background characteristics

Background characteristics	Institutional Delivery			Home Delivery assisted by			Skilled birth attendant*	Number of women# (n)
	Public	Private	Total	Skilled worker	Dai	Others		
Mother's age (in years)								
15-19	52.0	26.7	78.7	1.8	15.3	4.2	80.5	1165
19-24	49.4	26.4	75.8	3.3	15.5	5.4	79.0	8835
25-34	44.4	26.5	70.6	3.6	17.9	7.6	74.2	11910
35-44	44.7	15.4	60.0	2.9	27.3	9.7	62.9	1043
45+	17.6	11.8	29.4	-	61.7	8.9	29.4	31
Residence								
Rural	47.7	20.3	68.0	3.7	19.9	8.4	71.7	12849
Urban	45.1	40.5	85.6	2.3	9.7	2.4	87.9	10135
Religious group								
Hinduism	49.3	25.5	74.8	3.3	15.4	6.5	78.0	16651
Islam	37.7	24.7	62.4	3.2	26.9	7.5	65.6	3001
Sikhism	28.5	44.2	72.7	5.0	22.1	0.2	77.7	397
Christianity	42.7	33.4	76.0	2.8	10.9	10.2	78.9	2512
Other religious group	40.7	31.8	72.6	3.9	15.4	8.2	76.5	423
Social group								
Scheduled Caste	54.3	17.0	71.3	3.7	18.9	6.1	75.0	4167
Scheduled Tribe	43.7	13.4	57.0	4.3	24.4	14.2	61.3	3900
Other backward class	46.2	28.2	74.5	2.9	16.3	6.4	77.4	8080
Others	43.1	32.9	76.0	3.3	14.7	6	79.3	6837
Mother's education								
No education	43.4	10.1	53.5	4.2	30.3	12.0	57.7	5525
<5 years completed	51.4	17.6	69.0	4.9	19.1	7.0	73.9	1208
5-7 years completed	54.6	20.1	74.7	3.5	15.7	6.1	78.2	3631
8-9 years completed	53.1	29.1	82.2	2.7	11.0	4.1	84.9	3914
10-11 years completed	50.3	38.6	89.0	2.2	6.8	2.1	91.1	3959
12 or more years completed	36.0	57.1	93.1	1.9	2.9	2.1	95.0	4747
BPL status								
Have BPL card	51.2	21.0	72.1	3.2	17.5	7.1	75.3	7132
Don't have BPL card	44.5	28.8	73.4	3.4	16.8	6.5	76.7	15852
Wealth quintile								
Lowest	47.5	7.9	55.4	3.6	28.4	12.6	59.0	4597
Second	53.7	20.5	74.2	3.1	16.5	6.2	77.3	4596
Middle	51.1	28.7	79.9	4.2	12.1	3.9	84.0	4603
Fourth	47.9	37.5	85.4	3.3	9.3	2.0	88.7	4591
Highest	29.0	61.0	90.1	1.7	5.8	2.5	91.8	4597
Total	47.0	25.9	72.9	3.3	17.1	6.7	76.2	22984

* Skilled worker includes Doctor, ANM/Nurse/LHV; Dai is a traditional birth attendant
unweighted cases

5.7.3 Place of Delivery and Assistance during Home Delivery according to States

Table 5.16a presents the analysis of data with respect to the place of delivery, assistance during delivery, and deliveries attended by skilled health personnel by States and Union Territories. Percentage of institutional deliveries varied widely across the States and Union Territories. Institutional deliveries were below 50 percent in 4 States namely Bihar (48.3 percent), Chhattisgarh (44.9 percent), Jharkhand (40.1 percent) and Nagaland (30.4 percent). In the States of Andhra Pradesh, Goa, Kerala, and Tamil Nadu more than 90 percent of the deliveries took place in institutions. On the other hand, in States like Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Punjab, Rajasthan, Uttarakhand and West Bengal more than 20 percent deliveries were conducted by a dai.

Rural-urban differentials existed with regard to place of delivery and the person attending the home delivery across the States/Union Territories. Table 5.16b shows that in rural areas, institutional deliveries ranged from 24.3 percent in Nagaland to 100 percent each in Kerala and Goa. In 14 States the proportion of institutional deliveries are less than the national average. In contrast, the percentage of institutional deliveries in urban areas was higher. Institutional deliveries in urban areas ranged from 60.0 percent in Nagaland to 99.7 percent each in Kerala and Goa (Table 5.16c).

5.7.4 Mode of Transport, Transport Cost and Delivery Cost

All women who had institutional deliveries were asked about the mode of transport used to reach the health facility, cost incurred on transportation, and whether they had received any financial assistance from the government for delivery. The information collected has been presented in table 5.17 according to place of residence at national level.

Around 6.5 percent women used an ambulance, 30.9 percent jeep/car to reach the health facility for delivery while 7.5 percent travelled by motorcycle or scooter. However, many women reportedly used some other modes of transport such as bus/train (6.6 percent), and tempo/auto/tractor (34.1 percent). About 4.8 percent women reportedly reached the health facility on foot. When asked about distance travelled and time taken to reach the health facility, women in the rural areas had to travel more than double the distance as compared to those in urban areas. Women in rural areas travelled 11.2 Kms. on an average to reach the place of delivery, as compared to those in urban areas who travelled 4.9 Kms. Women in rural areas took 39.2 minutes on an average to reach the place of delivery, while women in urban areas took 24.3 minutes on an average. (Table 5.17).

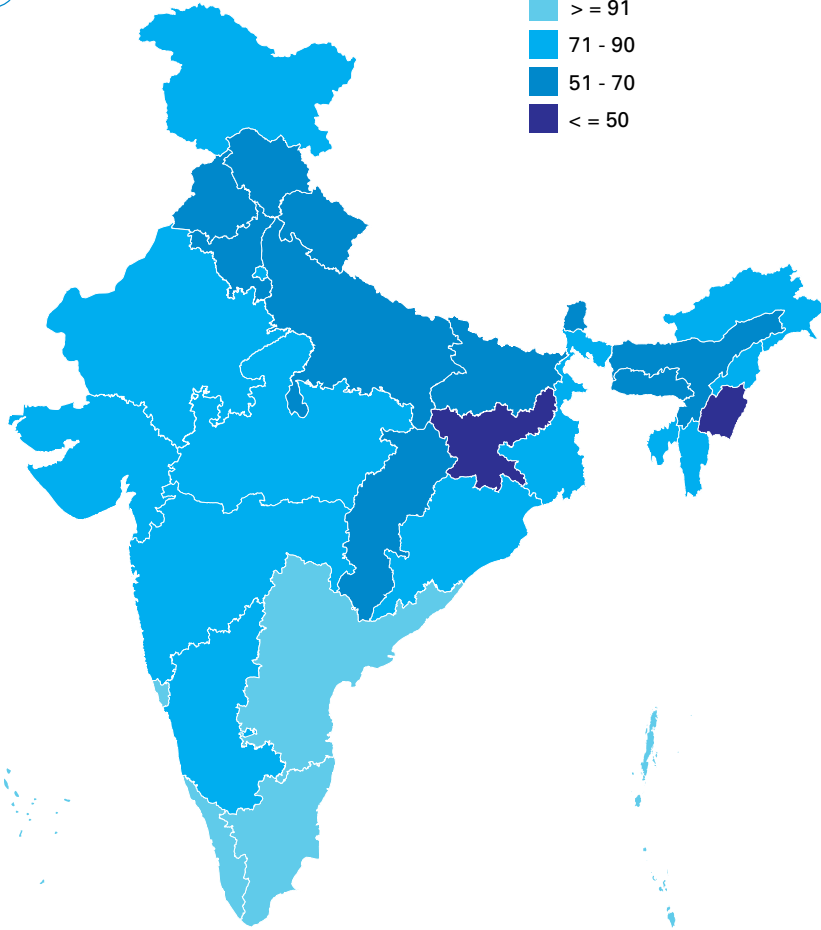
Women who delivered in an institution were also asked about the transportation cost incurred to reach the health facility. The mean transport cost was Rs. 192/-. It was Rs. 243/- in rural areas and Rs. 140/- in urban areas. About 21.0 percent of the women did not incur any transportation cost to reach health facility.

Map 5.2: Skilled Birth Attendance



Legend (in %)

- > = 91
- 71 - 90
- 51 - 70
- < = 50



Map not to scale

Table 5.16a: Percentage of women who delivered during 12 months preceding the survey vis a vis place of delivery and assistance during home delivery according to States/UT - Total

States/UT	Institutional Delivery			Home Delivery assisted by			Skilled birth attendant*	Number of women# (n)
	Public	Private	Total	Skilled worker	Dai	Others		
Andhra Pradesh	44.5	49.8	94.2	1.4	3.9	0.4	95.6	896
Arunachal Pradesh	64.6	5.3	69.9	2.0	6.4	21.7	71.9	569
Assam	55.5	8.9	64.4	1.1	24.3	10.2	65.5	881
Bihar	35.5	12.8	48.3	4.9	39.8	7.0	53.2	1066
Chhattisgarh	30.3	14.6	44.9	11.4	37.1	6.6	56.4	533
Delhi	45.8	37.8	83.6	1.0	11.9	3.5	84.6	589
Goa	45.9	53.9	99.8	0.0	0.2	0.0	99.8	543
Gujarat	34.2	43.9	78.1	7.1	11.8	3.0	85.2	800
Haryana	39.0	24.3	63.3	6.0	29.3	1.4	69.3	639
Himachal Pradesh	37.8	12.5	50.3	3.4	28.4	17.9	53.7	563
Jammu & Kashmir	70.6	10.3	80.9	2.1	12.7	4.3	82.9	622
Jharkhand	17.4	22.7	40.1	7.2	45.1	7.6	47.3	637
Karnataka	62.9	23.5	86.4	2.0	5.7	5.9	88.4	789
Kerala	49.3	50.6	99.9	0.0	0.0	0.1	99.9	832
Madhya Pradesh	71.1	9.9	81.0	1.9	11.1	6.0	82.9	1046
Maharashtra	40.5	41.4	81.8	3.7	9.4	5.0	85.5	1004
Manipur	49.1	30.9	80.0	2.7	10.7	6.6	82.7	629
Meghalaya	52.9	10.8	63.6	1.6	13.7	21.0	65.2	581
Mizoram	56.3	26.7	83.0	2.1	9.0	5.9	85.1	619
Nagaland	25.9	4.5	30.4	13.4	2.3	53.9	43.8	639
Orissa	61.9	13.6	75.5	3.6	9.9	11.0	79.1	947
Punjab	21.8	38.5	60.3	6.4	32.8	0.5	66.7	583
Rajasthan	55.3	15.1	70.5	5.3	21.7	2.6	75.8	908
Sikkim	67.2	1.7	68.9	1.0	13.7	16.4	69.9	537
Tamil Nadu	62.9	35.5	98.4	0.2	0.1	1.3	98.6	1104
Tripura	80.3	2.3	82.6	0.5	9.6	7.3	83.1	600
Uttar Pradesh	40.8	21.3	62.1	2.1	18.9	16.9	64.2	1135
Uttarakhand	33.3	20.2	53.5	5.1	28.1	13.3	58.7	580
West Bengal	54.2	15.3	69.5	3.0	23.0	4.5	72.6	838
UTs combined	59.5	28.6	88.1	2.7	7.8	1.4	90.7	1275
Total	47.0	25.9	72.9	3.3	17.1	6.7	76.2	22984

* Skilled worker includes Doctor, ANM/Nurse/LHV; Dai is a traditional birth attendant
unweighted cases

Table 5.16b: Percentage of women who delivered during 12 months preceding the survey according to place of delivery and assistance during home delivery by States/UT - Rural

States/UT	Institutional Delivery			Home Delivery assisted by			Skilled birth attendant*	Number of women# (n)
	Public	Private	Total	Skilled worker	Dai	Others		
Andhra Pradesh	45.6	48.7	94.3	1.2	4.4	0.1	95.5	545
Arunachal Pradesh	65.1	1.5	66.6	2.3	7.7	23.4	68.9	347
Assam	54.6	7.3	61.9	1.1	26.7	10.3	63.0	538
Bihar	35.6	10.5	46.0	4.8	41.9	7.2	50.8	642
Chhattisgarh	30.9	9.6	40.5	10.5	41.6	7.4	51.0	272
Delhi	50.7	27.4	78.1	0.0	18.9	3.0	78.1	58
Goa	52.5	47.5	100.0	0.0	0.0	0.0	100.0	266
Gujarat	35.1	38.1	73.1	9.6	13.1	4.1	82.8	469
Haryana	40.3	19.2	59.5	7.2	31.8	1.5	66.7	337
Himachal Pradesh	35.2	11.2	46.4	3.7	30.5	19.4	50.1	286
Jammu & Kashmir	70.8	5.1	76.0	2.7	16.5	4.9	78.7	321
Jharkhand	15.6	15.0	30.6	8.4	52.4	8.6	39.0	371
Karnataka	65.9	17.4	83.3	2.4	6.2	8.1	85.7	466
Kerala	50.4	49.6	100.0	0.0	0.0	0.0	100.0	500
Madhya Pradesh	71.5	5.9	77.4	2.1	12.7	7.8	79.5	626
Maharashtra	35.5	38.9	74.4	5.6	12.3	7.7	80.0	603
Manipur	46.7	28.9	75.6	2.2	13.2	9.0	77.9	365
Meghalaya	51.6	4.7	56.4	2.0	16.9	24.8	58.3	341
Mizoram	55.9	12.2	68.2	4.2	16.1	11.6	72.4	359
Nagaland	21.1	3.1	24.3	14.1	2.1	59.6	38.4	359
Orissa	64.6	9.8	74.4	4.1	10.5	11.0	78.5	590
Punjab	23.4	30.8	54.1	7.4	38.4	0.0	61.5	314
Rajasthan	56.6	10.9	67.5	4.6	25.1	2.8	72.2	553
Sikkim	65.8	1.1	66.8	1.0	14.4	17.7	67.9	329
Tamil Nadu	75.6	22.5	98.1	0.1	0.0	1.8	98.2	667
Tripura	79.3	0.4	79.7	0.6	11.5	8.2	80.2	360
Uttar Pradesh	43.7	16.2	59.9	1.7	18.3	20.1	61.7	687
Uttarakhand	32.4	12.6	45.0	6.0	32.7	16.3	51.0	294
West Bengal	51.1	12.2	63.3	4.0	27.5	5.2	67.4	518
UTs combined	66.7	19.7	86.4	1.8	9.3	2.5	88.2	466
Total	47.7	20.3	68.0	3.7	19.9	8.4	71.7	12849

* Skilled worker includes Doctor, ANM/Nurse/LHV; Dai is a traditional birth attendant
unweighted cases

Table 5.16c: Percentage of women who delivered during 12 months preceding the survey according to place of delivery and assistance during home delivery by States/UT - Urban

States/UT	Institutional Delivery			Home Delivery assisted by			Skilled birth attendant*	Number of women# (n)
	Public	Private	Total	Skilled worker	Dai	Others		
Andhra Pradesh	41.6	52.5	94.0	1.9	2.8	1.2	95.9	351
Arunachal Pradesh	62.8	19.9	82.6	0.5	1.7	15.1	83.1	222
Assam	61.5	20.1	81.6	0.7	7.8	9.9	82.3	343
Bihar	34.9	32.5	67.4	6.0	21.3	5.3	73.5	424
Chhattisgarh	27.9	34.6	62.6	15.0	19.2	3.3	77.6	261
Delhi	45.4	38.5	84.0	1.1	11.4	3.6	85.0	531
Goa	39.3	60.4	99.7	0.0	0.3	0.0	99.7	277
Gujarat	32.8	53.6	86.5	2.9	9.6	1.1	89.3	331
Haryana	35.8	36.9	72.7	2.9	23.3	1.1	75.5	302
Himachal Pradesh	61.9	24.4	86.3	0.5	8.9	4.3	86.7	277
Jammu & Kashmir	69.8	25.9	95.7	0.0	1.0	3.3	95.7	301
Jharkhand	23.9	49.4	73.3	3.1	19.7	3.9	76.5	266
Karnataka	57.0	35.4	92.4	1.2	4.6	1.8	93.6	323
Kerala	46.3	53.4	99.7	0.0	0.0	0.3	99.7	332
Madhya Pradesh	70.0	21.3	91.3	1.2	6.6	0.9	92.5	420
Maharashtra	47.2	44.8	92.0	1.1	5.6	1.3	93.0	401
Manipur	55.6	36.6	92.2	4.1	3.6	0.1	96.2	264
Meghalaya	58.0	35.6	93.6	0.0	0.4	6.0	93.6	240
Mizoram	56.6	41.3	97.9	0.0	1.7	0.4	97.9	260
Nagaland	48.8	11.2	60.0	9.6	3.3	27.1	69.6	280
Orissa	47.1	34.8	81.8	0.6	6.5	11.0	82.4	357
Punjab	18.9	53.5	72.4	4.4	21.9	1.3	76.7	269
Rajasthan	51.1	29.0	80.1	7.4	10.6	1.9	87.6	355
Sikkim	78.9	6.4	85.2	0.7	8.0	6.0	85.9	208
Tamil Nadu	46.7	52.0	98.7	0.3	0.2	0.8	99.0	437
Tripura	85.1	11.9	97.0	0.0	0.7	2.3	97.0	240
Uttar Pradesh	29.6	40.5	70.1	3.7	21.1	5.1	73.8	448
Uttarakhand	35.8	42.5	78.3	2.6	14.6	4.5	80.9	286
West Bengal	62.3	23.2	85.5	0.5	11.4	2.6	86.0	320
UTs combined	55.8	36.4	92.1	3.2	3.1	1.5	95.3	809
Total	45.1	40.5	85.6	2.3	9.7	2.4	87.9	10135

* Skilled worker includes Doctor, ANM/Nurse/LHV; *Dai* is a traditional birth attendant
unweighted cases

Table 5.17: Percentage of women who delivered in institution during 12 months preceding the survey according to transport used at the time of delivery

Responses	Rural	Urban	Total
Mode of transport used to reach the health facility			
Ambulance	8.1	3.4	6.5
Jeep/Car	33.1	26.3	30.9
Motorcycle/Scooter	7.5	7.4	7.5
Bus/Train	7.6	4.5	6.6
Tempo/Auto/Tractor	30.2	42.3	34.1
Cart	1.4	1.1	1.3
On foot	4.4	5.7	4.8
Others	7.9	9.3	8.4
Distance to health facility (in Kms.)			
<= 1	11.4	30.0	17.5
2-5	27.8	37.7	31.0
6-10	19.6	9.9	16.5
11-20	16.3	5.6	12.8
20-30	6.9	2.1	5.3
30+	5.7	1.3	4.3
Don't Know/Can't say	12.2	13.4	12.6
Mean distance from house (in Kms.)	11.2	4.9	8.1
Time taken to reach the facility (in minutes)			
<= 30	64.2	85.2	71.0
31-60	24.8	11.1	20.3
61-90	3.6	1.1	2.8
>90	7.4	2.6	5.9
Mean time taken (in minutes) to reach the facility	39.2	24.3	31.8
Cost incurred on transport (Rupees)			
<= 200	40.6	56.2	45.7
201-400	13.2	5.3	10.6
401-600	9.5	4.1	7.7
601-800	2.7	0.7	2.0
801-1000	2.6	1.0	2.1
>1000	1.8	0.9	1.5
No cost paid	20.5	22.0	21.0
Don't know	9.3	9.8	9.5
Mean cost on transport (in rupees)	243	140	192
Number of women# (n)	12849	10135	22984

unweighted cases

5.7.5 Duration of Stay after Delivery

All the women who had institutional deliveries were asked how long they stayed in the institution after delivery. Table 5.18 shows that among the women who had normal or assisted delivery, 20.2 and 20.1 percent respectively were discharged after 2 and 3 days and another 14.6

percent after 4 days. Around 81.8 percent of the women who had caesarean delivery stayed for 4 or more days in the health facility. The table further shows that 54.9 percent of the women who had normal or assisted delivery stayed at the health facility for at least 48 hours. The figure rose to 91.9 percent among women who had caesarean delivery.

Table 5.18: Percentage of women who delivered in a health facility according to the duration of stay after delivery in the health facility

Duration of Stay	Normal/Assisted delivery	Caesarean delivery
< 3 hrs	6.9	1.6
3-5 hrs	7.5	0.9
6-11 hrs	5.9	1.1
12-23 hrs	4.3	0.9
1 day	20.5	3.6
2 days	20.2	3.6
3 days	20.1	6.5
4 + days	14.6	81.8
Stayed for at least 48 hours	54.9	91.9
Number of women who delivered in an institution# (n)	13897	3808

unweighted cases

The analysis of duration of stay in low-performing and high-performing States is presented in Table 5.19. The table indicates that women in low-performing States stayed at the health facility relatively for a longer period as compared to women in high-performing States. For instance,

in low-performing States, 52.9 percent of women with normal delivery/assisted delivery were discharged after 48 hours as compared to 42.6 percent in high-performing States. A similar trend was observed among women who had caesarean delivery.

Table 5.19: Percentage of women who delivered in a government health facility according to the duration of stay after delivery in the health facility

Duration of Stay	Normal/Assisted delivery	Caesarean delivery
Low-performing States		
< 3 hrs	7.5	2.2
3-5 hrs	7.2	2.4
6-11 hrs	5.3	1.1
12-23 hrs	3.3	2.0
1 day	23.8	9.5
3 days	20.1	6.5
4 + days	14.6	81.8
Stayed for at least 48 hours	54.9	91.9
Number of women who delivered in government institutions (n)	6601	1281
High-performing States		
< 3 hrs	8.0	1.6
3-5 hrs	10.2	1.0
6-11 hrs	9.5	3.5
12-23 hrs	5.4	1.4
1 day	22.5	1.3
2 days	19.3	8.1
3 days	18.8	5.2
4 + days	6.3	77.9
Stayed for at least 48 hours	42.6	21.2
Number of women who delivered in government institutions# (n)	3377	456

unweighted cases

Distinction between low and high performing states is as per JSY scheme.

5.7.6 Length of Stay according to Background Characteristics

The length of the stay at a health facility after normal/assisted delivery was further analysed according to selected background characteristics of the women. Table 5.20 shows that 54.9 percent of women were discharged after 48 hours of delivery. Younger women below 35 years of age stayed longer at the health facility as compared to women aged 35 or more years. Urban women were more likely to stay longer at a health facility than rural women (Table 5.20). Further, higher percentage of women from households with the highest wealth

quintile (62.7 percent) stayed for 48 hours or more as compared to those households with the lowest wealth quintile (40.3 percent).

There were State differentials in the duration of stay at the health facility. At all India level, 54.9 percent women who had normal or assisted delivery stayed at the health facility for at least 48 hours. In 17 States, the percentage of women who stayed at the health facility for at least 48 hours was less than the national average. The percentage of such women was very low in the States of Bihar (15.3 percent), Haryana (29.2 percent), Nagaland (21.1 percent) and Orissa (28.3 percent).

Table 5.20: Percentage of women who delivered in health facility and stayed at least for 48 hours after delivery in the health facility according to background characteristics (normal/assisted delivery)

Background Characteristics	Stayed for at least 48 hours	No. of women delivered in institution (normal or assisted delivery)#
Mother's Age (in Years)		
15-19	51.3	745
20-24	59.1	5556
25-34	52.7	7045
35-44	35.1	533
45+	38.6	18
Residence		
Rural	50.7	7447
Urban	65.0	6450
Mother's Education		
No education	54.7	10381
<5 years complete	50.6	1586
5-7 years complete	67.7	223
8-9 years complete	66.3	1466
10-11 years complete	77.0	241
12 or more years complete	54.9	13897
Religious group		
Hinduism	49.5	2173
Islamism	52.8	5060
Sikhism	60.0	4159
Christianity	54.9	13897
Other religious group	39.3	2691
Social group		
Scheduled Caste	56.7	2240
Scheduled Tribe	56.4	2563
Other backward Classes	68.8	2640
Others	66.1	3039
BPL status		
Have BPL card	52.4	4201
Don't have BPL card	56.4	9696
Wealth Index		
Lowest	40.3	2290
Second	53.1	2723
Middle	63.9	2891
Fourth	65.3	3037
Highest	62.7	2956
Total	54.9	13897

unweighted cases

Table 5.21: Percentage of women who delivered in health facility and had normal or assisted delivery according to the duration of stay after delivery in the health facility by States and UTs

States/UT	<3	3-5 hrs	6-11 hrs	12-23 hrs	1 day	2 day	3 days	4+ days	Stayed for at least 48 hours	No. of women delivered in institution (normal or assisted delivery)#
Andhra Pradesh	4.2	4.4	2.5	2.5	24.1	14.9	22.4	25.0	62.3	530
Arunachal Pradesh	11.5	6.5	12.1	4.8	32.2	22.7	8.2	2.1	33	391
Assam	3.6	6.7	10.9	6.6	26.5	26.6	13.2	5.8	45.6	494
Bihar	13.6	13.8	21.7	10.6	24.9	6.9	3.8	4.6	15.3	545
Chhattisgarh	12.0	13.2	0.9	0.0	24.3	26.0	13.8	9.8	49.6	227
Delhi	8.0	5.9	5.8	1.9	24.6	30.4	13.1	10.3	53.8	425
Goa	0.4	0.0	0.0	0.0	1.0	11.7	22.0	64.9	98.6	418
Gujarat	3.5	3.6	0.9	2.9	22.6	45.3	13.1	8.2	66.6	537
Haryana	20.1	17.6	10.4	1.1	21.5	15.7	5.7	7.8	29.2	350
Himachal Pradesh	1.1	0.0	0.4	1.0	25.9	40.3	18.3	13.0	71.6	273
Jammu & Kashmir	5.6	12.3	7.3	4.4	34.1	24.2	5.0	7.0	36.2	289
Jharkhand	2.5	9.7	17.3	8.6	24.1	20.0	12.2	5.6	37.8	237
Karnataka	7.0	4.3	3.2	4.2	22.9	19.8	23.1	15.5	58.4	536
Kerala	0.3	0.2	0.0	2.1	1.8	8.4	19.8	67.5	95.7	549
Madhya Pradesh	2.9	1.7	0.7	1.4	17.8	23.1	45.7	6.8	75.6	750
Maharashtra	2.2	4.7	1.0	2.2	17.2	31.2	25.8	15.8	72.8	632
Manipur	3.0	4.7	9.2	4.6	25.0	34.5	13.1	5.9	53.5	416
Meghalaya	2.3	2.3	6.6	8.1	24.3	19.6	22.2	14.6	56.4	361
Mizoram	8.4	6.3	7.8	3.9	26.7	14.4	13.9	18.6	46.9	468
Nagaland	19.8	15.3	2.6	4.0	37.2	10.9	6.6	3.6	21.1	222
Orissa	11.1	16.9	12.4	3.6	27.6	11.9	8.2	8.2	28.3	628
Punjab	1.3	3.7	8.0	6.4	24.1	32.1	16.2	8.2	56.5	257
Rajasthan	6.3	6.9	5.9	6.7	23.8	28.3	16.7	5.3	50.3	627
Sikkim	4.1	2.7	2.3	1.6	44.9	28.7	8.2	7.6	44.5	351
Tamil Nadu	3.3	0.6	0.2	0.7	9.0	14.0	40.4	31.8	86.2	787
Tripura	0.7	1.0	0.9	0.7	21.9	29.2	24.0	21.5	74.7	379
Uttar Pradesh	14.9	18.4	11.1	8.3	16.4	9.3	13.1	8.4	30.8	589
Uttarakhand	5.4	6.6	7.1	1.0	22.4	29.7	19.2	8.6	57.5	300
West Bengal	4.6	1.2	4.2	3.1	33.2	22.7	16.6	14.4	53.7	416
UTs combined	4.0	2.0	1.6	0.7	19.6	26.1	22.5	23.5	72.1	913
Total	6.9	7.5	5.9	4.3	20.5	20.2	20.1	14.6	54.9	13897

unweighted cases

5.8 REASONS FOR NOT GOING TO HEALTH INSTITUTION FOR DELIVERY

Women who delivered at home were asked the reasons for not delivering their baby at some institution. Table 5.22 shows that the main reasons given by such women were 'no time to go' (40.6 percent), 'it was not necessary' (24.6 percent), 'better care at home' (20.1 percent) and 'costs too much' (17.9 percent). The 'family did not allow' was reported by another 10.3 percent of the

women. These data didn't vary much according to the background characteristics of the women.

Although the pattern of responses of the reasons for not delivering in an institution was the same across the States, there were certain trends. Table 5.23 shows that 'no time to go' was the main reason reported by 74.0 percent of the women in Madhya Pradesh, 68.9 percent in Maharashtra and 77.9 percent in Sikkim. Further, more than half of the women in Arunachal Pradesh and Meghalaya did not feel the necessity of delivering the baby in an institution (Table 5.23a).

Figure 5.4: Reasons for not Delivering at Institution (Multiple Responses)

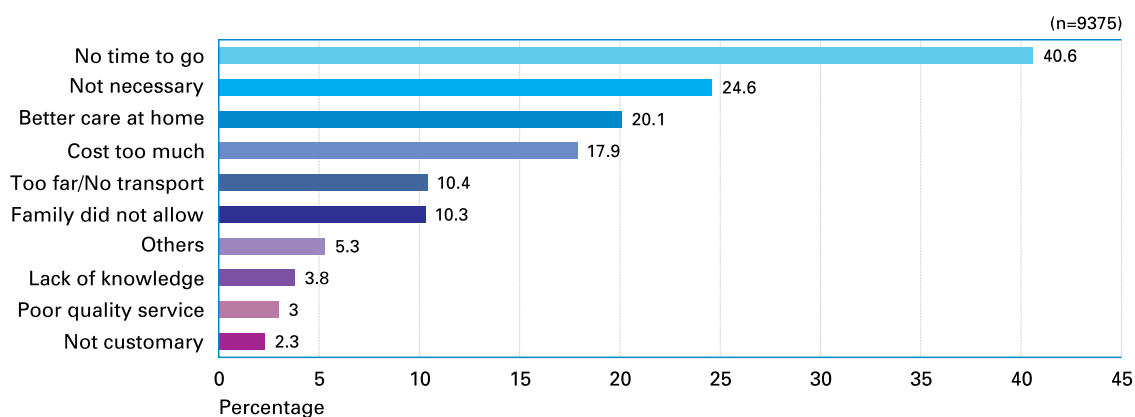


Table 5.22: Percentage of women who delivered at home during 12 months preceding the survey according to reasons for not delivering the baby in an institution by background characteristics (Multiple responses)

Background Characteristics	Cost too much	Poor quality service	Too far/No transport	No time to go	Not necessary	Not customary	Better care at home	Family did not allow	Lack of knowledge	Others	Number of women#
Mother's Age (in Years)											
15-19	18.7	3.3	7.7	34.6	28.2	3.5	17.1	16.2	4.6	6.3	278
20-24	17.2	2.8	11.0	44.6	22.1	1.6	18.7	10.9	4.1	5.9	1893
25-34	17.5	2.9	10.2	39.1	25.8	2.5	21.9	9.8	3.4	4.5	2751
35-44	25.0	4.6	9.4	35.3	25.8	4.3	16.2	7.4	5.2	7.6	347
45+	*	*	*	*	*	*	*	*	*	*	10*
Residence											
Rural	18.1	2.9	11.6	40.7	25.1	2.4	19.7	10.4	3.8	5.3	3857
Urban	16.9	3.4	3.7	40.2	21.6	1.8	22.4	10.0	4.0	5.1	1422
Mother's Education											
No education	22.5	3.2	13.0	37.9	25.3	3.2	20.0	9.8	5.1	5.2	2440
<5 years complete	14.4	3.3	10.6	45.8	24.5	1.1	15.4	14.1	5.2	5.6	366
5-7 years complete	11.9	3.2	7.4	40.4	25.4	1.0	18.7	12.8	1.8	5.0	941
8-9 years complete	11.8	1.6	5.9	47.0	19.9	1.4	23.3	11.1	.9	3.9	762
10-11 years complete	7.3	3.3	4.8	46.2	24.2	0.3	21.8	7.3	1.2	8.9	476
12 or more years complete	9.4	1.5	2.9	50.1	23.3	0.7	24.0	5.4	0.9	5.4	294
Religious Group											
Hinduism	16.7	3.0	11.3	43.3	22.5	2.4	20.5	9.7	4.3	5.7	3481
Islam	23.1	3.4	6.4	31.6	30.0	2.1	17.0	14.6	2.5	4.8	798
Sikhism	15.8	1.0	2.0	34.5	51.9	0.0	26.0	2.7	1.4	1.3	91
Christianity	12.9	3.1	19.7	35.1	24.8	3.5	26.0	3.1	5.6	1.8	773
Other religious groups	14.6	0.1	17.8	46.0	29.9	0.0	31.8	1.8	.5	0.1	136
Social Group											
Scheduled Caste	19.4	2.9	9.0	39.0	25.2	2.6	18.8	7.5	4.0	5.4	1070
Scheduled Tribe	14.8	5.5	15.3	43.2	25.1	1.4	19.8	9.2	6.3	6.1	1418
Other Backward Classes	19.8	2.5	11.7	41.4	23.9	2.3	21.0	12.0	3.6	5.3	1601
Others	15.0	2.7	7.5	39.8	24.9	2.3	20.0	11.1	2.9	4.9	1190
BPL status											
Have BPL card	19.5	3.6	12.1	40.7	20.0	2.2	18.5	11.2	4.5	5.9	1895
Don't have BPL card	16.9	2.6	9.4	40.6	27.4	2.3	21.0	9.8	3.4	4.9	3384
Wealth Index											
Lowest	21.4	2.9	14.4	38.2	24.0	2.9	17.6	11.5	4.7	5.8	2043
Second	16.0	3.4	7.1	37.3	25.9	2.0	18.7	10.0	3.5	5.9	1319
Middle	9.6	2.7	7.2	44.4	29.2	1.4	26.2	6.6	3.6	4.4	996
Fourth	19.6	3.2	3.4	48.7	22.1	1.2	21.7	7.3	1.1	4.2	571
Highest	7.4	3.5	1.1	57.7	18.6	0.9	33.7	13.5	0.7	1.9	350
Total	17.9	3.0	10.4	40.6	24.6	2.3	20.1	10.3	3.8	5.3	5279

Base = All women who did not deliver their baby in an institution;

* base less than 25

Total may not add to 100 percent due to multiple responses # unweighted cases

Table 5.23a: Percentage of women who delivered at home during 12 months preceding the survey according to reasons for not delivering the baby in an institution by States/UT – Total (Multiple responses)

Background Characteristics	Cost too much	Poor quality service	Too far/No transport	No time to go	Not necessary	Not customary	Better care at home	Family did not allow	Lack of knowledge	Others	Number of women
Andhra Pradesh	43.9	10.9	1.1	33.2	0.0	0.0	9.3	2.2	0.0	24.7	53
Arunachal Pradesh	10.0	1.8	13.7	20.6	53.7	0.5	8.6	6.6	7.8	2.2	156
Assam	11.6	2.1	3.6	30.9	19.9	0.7	16.4	23.8	1.5	5.5	247
Bihar	24.3	3.2	21.8	35.1	22.9	4.7	21.5	16.6	4.5	7.4	441
Chhattisgarh	3.3	1.1	6.7	39.2	4.3	0.1	43.8	12.0	11.9	1.7	249
Delhi	20.5	5.9	5.2	39.6	16.8	2.1	19.3	17.0	8.8	1.1	92
Goa	0.0	0.0	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	1*
Gujarat	7.1	4.0	0.4	25.9	31.4	0.9	9.3	13.0	7.7	9.1	158
Haryana	15.9	2.6	1.8	57.8	19.8	1.1	33.2	7.5	2.5	.8	201
Himachal Pradesh	11.8	2.3	11.1	31.4	40.6	0.7	9.2	5.2	2.1	3.0	197
Jammu & Kashmir	27.6	13.1	16.5	26.8	31.5	0.1	20.4	5.4	13.6	2.2	86
Jharkhand	25.4	4.4	23.2	30.9	34.7	0.2	33.2	13.1	4.0	4.0	325
Karnataka	31.4	0.0	0.7	47.6	7.3	0.0	12.8	2.4	4.8	11.2	84
Kerala	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
Madhya Pradesh	4.1	2.9	7.0	74.0	9.6	1.6	9.4	4.9	2.6	6.5	194
Maharashtra	7.6	3.6	17.2	68.9	20.0	1.4	8.8	16.7	6.7	2.6	185
Manipur	33.1	3.1	15.3	24.8	17.0	4.8	21.7	2.8	8.6	5.6	119
Meghalaya	16.6	8.8	16.1	27.9	54.2	10.6	6.8	1.6	16.0	2.2	176
Mizoram	19.1	12.5	25.2	17.7	8.5	0.0	8.0	10.9	7.4	19.4	106
Nagaland	23.1	2.8	8.1	16.2	31.0	1.1	36.6	0.6	4.4	1.7	381
Orissa	12.8	2.0	17.6	57.8	26.8	0.2	1.5	1.9	3.0	0.7	202
Punjab	9.4	0.4	0.8	42.5	38.9	3.1	18.4	5.9	0.8	0.7	189
Rajasthan	13.8	4.8	9.8	41.6	28.8	5.7	15.0	6.4	10.4	5.7	210
Sikkim	8.0	3.2	31.7	77.9	2.4	0.1	3.6	1.7	1.9	0.3	122
Tamil Nadu	18.7	0.0	0.0	6.1	2.5	0.0	0.0	0.0	0.0	72.7	24
Tripura	3.1	0.1	3.9	21.7	27.6	7.0	22.2	28.4	0.1	0.0	87
Uttar Pradesh	20.6	2.9	5.4	39.5	28.3	1.1	26.8	9.0	0.8	3.7	445
Uttarakhand	17.8	5.3	29.5	31.3	35.1	5.0	34.2	15.4	3.7	3.6	208
West Bengal	22.7	0.9	6.9	29.4	27.5	5.0	10.6	4.8	0.8	5.9	219
UTs combined	25.6	4.2	1.7	25.1	39.3	0.0	0.9	2.5	1.3	1.8	121
Total	17.9	3.0	10.4	40.6	24.6	2.3	20.1	10.3	3.8	5.3	5279

Base= All women who did not deliver their baby in an institution

* base less than 25

Total may not add to 100 percent due to multiple responses

unweighted cases

5.9 COMPLICATIONS DURING DELIVERY

Women who delivered during 12 months preceding the survey were asked about complications faced by them during the delivery. Table 5.24 shows that 59.6 percent of the women reported at least one delivery-related complication. Rural women faced slightly higher percentage of delivery complications

(61.1 percent) than urban women (55.9 percent).

The complications faced by women were primarily - obstructed labour (34.9 percent), premature labour (29.6 percent) and prolonged labour (21.1 percent). The other problems reported relatively by a moderate proportion of women were excessive bleeding (9.8 percent), breech presentation (6.2 percent) and convulsions (4.1 percent). There were no major differences in the complications faced by rural and urban women.

Table 5.24: Percentage of women who delivered during 12 months preceding the survey according to type of perceived complications during deliver

Complications	Rural	Urban	Total
Premature labour	30.6	27.1	29.6
Excessive bleeding	9.9	9.4	9.8
Prolonged labour	21.7	19.5	21.1
Obstructed labour	36.9	29.9	34.9
Breach presentation	5.8	7.1	6.2
Convulsions	4.5	3.1	4.1
High BP	5.8	7.6	6.3
Others	3.2	3.8	3.4
Faced at least one complication	61.1	55.9	59.6
Number of women# (n)	12849	10135	22984
Number of women# (n)	12849	10135	22984

Base = all recently delivered women
unweighted cases

5.10 LEVEL OF AWARENESS AND UTILIZATION OF JSY SCHEME AND RECEIPT OF MATERNAL AND CHILD HEALTH (MCH) CARD

Janani Suraksha Yojana (JSY) is one of the important programmes under the overall umbrella of NRHM. The main objective of JSY is to reduce maternal mortality ratio and infant mortality rate. To achieve this, cash assistance is given to the pregnant woman to enable her to make all the required antenatal care visits, and avail of institutional care during delivery and immediate post-partum period in a health centre. A system of coordinated care by field level health worker namely ASHA/AWW and ANM has been established. To understand the current status of JSY, all respondents were asked whether they had ever heard about *Janani Suraksha Yojana* and cash assistance under JSY scheme. Information

collected was analysed according to background characteristics of the women. Table 5.25 shows that 60 percent of the women were aware of JSY scheme. There was no significant difference in the awareness of the scheme among rural and urban women and illiterate and educated women. Awareness of the JSY scheme was better among women from BPL families (64.3 percent) than above poverty line (APL) families (57.5 percent). The table further shows that scheduled caste and scheduled tribe women had better awareness of the scheme than OBC and general caste women (Table 5.25).

On registration of pregnancy with health facility or health functionary, a woman receives an MCH card. The women were asked if they had received the MCH card during the last pregnancy. Around 73.9 percent of the women reportedly received the MCH card. Further analysis according to background characteristics of the women did not show any significant differentials.

Table 5.25: Percentage of women who were aware of the JSY scheme and received MCH card during delivery according to background characteristics

Background Characteristics	Percentage aware of JSY scheme	Percentage who received MCH Card	Number of women #
Mother's age (in Years)			
15-19	59.8	77.3	1165
20-24	62.8	75.2	8835
25-34	58.6	73.0	11910
35-44	45.7	64.2	1043
45+	67.8	60.6	31
Residence			
Rural	60.8	75.2	12849
Urban	57.9	70.4	10135
Mother's education			
No education	55.0	69.7	5525
<5 years completed	65.4	79.9	1208
5-7 years completed	63.4	76.5	3631
8-9 years completed	63.6	77.7	3914
10-11 years completed	60.7	76.8	3959
12 or more years completed	61.6	71.6	4747
Religious group			
Hinduism	62.2	75.1	16651
Islam	48.9	67.0	3001
Sikhism	58.9	89.1	397
Christianity	53.8	63.6	2512
Other religious group	64.1	79.6	423
Social group			
Scheduled caste	64.4	78.3	4167
Scheduled tribe	64.1	68.6	3900
Other backward classes	58.6	73.7	8080
Others	57.5	71.8	6837
BPL status			
Have BPL card	64.3	75.3	7132
Don't have BPL card	57.5	73.0	15852
Wealth Index			
Lowest	58.8	71.0	4597
Second	65.0	77.8	4596
Middle	58.9	77.4	4603
Fourth	60.1	73.3	4591
Highest	56.5	70.9	4597
Total	60.0	73.9	22984

unweighted cases

5.10.1 Level of Awareness of JSY Scheme and Receipt of JSY Card according to States/UT

The level of awareness of the JSY scheme varies across States. Under the programme, more focus is given to some States where maternal and infant mortality is high. Therefore, for analysis, States and Union Territories have been grouped in low-performing States (LPS) and high-performing States (HPS) as per the JSY guidelines¹¹ issued by the Government of India. In LPS, all pregnant women delivering in the government and accredited private health institutions receive cash assistance from Government. On the other hand, in HPS only women belonging to BPL/SC/ST category (limited to 2 live births) are provided cash assistance for similar institutional deliveries.

Table 5.26a shows that awareness was somewhat similar among women from high-performing States (61.1 percent) when compared to low-performing States (58.9 percent). Among the low-performing States, the awareness was lower in Jammu & Kashmir (37.9 percent), Uttar Pradesh

(25.8 percent) and Uttarakhand (31.6 percent). On the other hand, among the high-performing States awareness was low in the States of Goa (19.7 percent), Himachal Pradesh (28.0 percent), Gujarat (48.7 percent), Kerala (46.2 percent), Meghalaya (37.1 percent), Nagaland (35.8 percent), and all UTs combined (41.1 percent).

With regard to the receipt of the MCH card, about 76.0 percent of the women in high-performing States and 71.6 percent in low-performing States had received the MCH card. Among low-performing States the receipt of the MCH card was reportedly low in Orissa (31.2 percent) and among high-performing States in Nagaland (13.7 percent) (Table 5.26a).

The level of awareness of JSY scheme and receipt of MCH card data was further analysed separately for rural and urban areas. Tables 5.26b and 5.26c indicate that both awareness of JSY scheme and receipt of MCH card was higher in rural than in urban areas. Similar results were found in many States among both low-performing and high-performing States.

11 JSY Guidelines are available at www.mohfw.nic.in/layout_09-06.pdf accessed on 19 November 2010

Table 5.26a: Percentage of women who aware of JSY scheme and received MCH card according to States/UT - Total

States/UTs	Percentage aware of JSY scheme	Percentage who received MCH Card	Number of women #
Low-Performing States			
Assam	68.0	83.1	881
Bihar	74.0	76.3	1066
Chhattisgarh	55.2	94.0	533
Jammu & Kashmir	37.9	57.4	622
Jharkhand	83.3	77.0	637
Madhya Pradesh	81.3	78.6	1046
Orissa	87.6	31.2	947
Rajasthan	84.8	75.7	908
Uttar Pradesh	25.8	70.5	1135
Uttarakhand	31.6	53.9	580
Total	58.9	71.6	8355
High-Performing States			
Andhra Pradesh	60.7	69.7	896
Arunachal Pradesh	51.5	65.2	569
Delhi	62.4	70.2	589
Goa	19.7	56.2	543
Gujarat	48.7	72.1	800
Haryana	64.8	72.0	639
Himachal Pradesh	28.0	87.8	563
Karnataka	76.9	82.6	789
Kerala	46.2	60.4	832
Maharashtra	52.1	62.4	1004
Manipur	53.5	55.6	629
Meghalaya	37.1	53.5	581
Mizoram	73.5	87.8	619
Nagaland	35.8	13.7	639
Punjab	59.0	92.2	583
Sikkim	56.4	77.3	537
Tamil Nadu	64.3	93.4	1104
Tripura	55.6	87.3	600
West Bengal	78.0	87.8	838
UTs Combined	41.1	82.5	1275
Total	61.1	76.0	14629

unweighted cases

Table 5.26b: Percentage of women who were aware of JSY scheme and received MCH card according to States/UT -Rural

States/UTs	Percentage aware of JSY scheme	Percentage who received MCH Card	Number of women #
Low-Performing States			
Assam	67.3	84.6	538
Bihar	74.9	77.2	642
Chhattisgarh	53.8	94.0	272
Jammu & Kashmir	43.7	62.5	321
Jharkhand	84.5	80.8	371
Madhya Pradesh	82.0	79.0	626
Orissa	88.7	32.2	590
Rajasthan	84.3	77.6	553
Uttar Pradesh	24.2	72.1	687
Uttarakhand	33.7	59.2	294
Total	59.0	73.0	4894
High-Performing States			
Andhra Pradesh	62.5	73.3	545
Arunachal Pradesh	47.2	62.1	347
Delhi	55.9	76.7	58
Goa	19.7	51.5	266
Gujarat	51.9	77.3	469
Haryana	64.9	76.0	337
Himachal Pradesh	27.5	87.6	286
Karnataka	84.1	85.1	466
Kerala	48.7	57.7	500
Maharashtra	50.5	60.1	603
Manipur	46.3	49.5	365
Meghalaya	39.9	57.5	341
Mizoram	70.7	87.4	359
Nagaland	34.3	13.3	359
Punjab	58.9	92.0	314
Sikkim	58.7	81.7	329
Tamil Nadu	62.3	95.8	667
Tripura	55.0	90.6	360
West Bengal	82.3	90.7	518
UT COMBINED	41.4	90.5	466
Total	62.9	77.8	7955

unweighted cases

Table 5.26c: Percentage of women who were aware of JSY scheme and received MCH card according to States/UT -Urban

States/UTs	Percentage aware of JSY scheme	Percentage who received MCH Card	Number of women #
Low-Performing States			
Assam	72.4	72.7	343
Bihar	65.7	68.6	424
Chhattisgarh	60.8	94.0	261
Jammu & Kashmir	20.2	42.1	301
Jharkhand	79.3	63.8	266
Madhya Pradesh	79.3	77.4	420
Orissa	81.0	25.2	357
Rajasthan	86.5	69.4	355
Uttar Pradesh	31.7	64.2	448
Uttarakhand	25.4	38.3	286
Total	58.3	65.6	3461
High-Performing States			
Andhra Pradesh	55.9	60.2	351
Arunachal Pradesh	67.9	77.0	222
Delhi	62.9	69.8	531
Goa	19.7	61.0	277
Gujarat	43.3	63.4	331
Haryana	64.5	62.2	302
Himachal Pradesh	32.1	89.2	277
Karnataka	63.1	78.0	323
Kerala	39.1	67.9	332
Maharashtra	54.3	65.5	401
Manipur	73.6	72.3	264
Meghalaya	25.2	36.9	240
Mizoram	76.3	88.2	260
Nagaland	43.2	15.3	280
Punjab	59.4	92.6	269
Sikkim	37.4	41.8	208
Tamil Nadu	66.8	90.5	437
Tripura	58.3	71.3	240
West Bengal	67.0	80.5	320
UT COMBINED	40.2	75.2	809
Total	57.7	72.8	6674

unweighted cases

5.10.2 Assistance Received under JSY Scheme

All women who delivered during 12 months preceding the survey were asked whether they had received any assistance under the JSY scheme. Nearly one-third of the women reported that they received some assistance during the last delivery (Table 5.27). Government assistance was received by a higher proportion of women in rural areas (35.5 percent) than that in urban areas (24.7 percent). The table further shows that as expected, at almost similar level scheduled caste and scheduled tribe women, women from BPL families and from lowest wealth quintile households received government assistance when compared to their counterparts.

Women who delivered in government institutions were further asked if they had received assistance under the JSY scheme. The analysis shows that 59.3 percent women received such assistance. Such percentage was higher among rural women (64.3 percent) than urban women (45.5 percent).

The table further shows that more scheduled caste and scheduled tribe women and women from households with the lowest wealth quintile received government assistance than women from other castes and from households with highest wealth quintile respectively.

An analysis of the data on Government assistance received under JSY according to States and UTs shows that a significantly higher percent of the women from low -performing States (40.0 percent) received JSY assistance as compared to women from high-performing States (25.5 percent) (Table 5.28). Among the low -performing States, very low percentage of women reportedly received JSY assistance in Jharkhand (12.0 percent) and Bihar (24.5 percent).

The analysis of the data on JSY assistance received by the women delivered at government institutions shows that comparatively a higher proportion (81.1 percent) of women from low-performing States received assistance than women from high-performing States (36.5 percent).

Table 5.27: Percentage of women delivered during 12 months preceding the survey according to the government assistance received under JSY and the background characteristics

Background Characteristics	Received any government assistance under JSY		Women who delivered in government institution and received assistance under JSY	
	Percentage who received JSY assistance	No. of women # *	Percentage who received JSY assistance	No. of women who delivered in government institutions #
Mother's age (in Years)				
15-19	34.9	1165	55.9	654
20-24	34.2	8835	58.2	4686
25-34	30.9	11910	60.9	5892
35-44	28.6	1043	61.8	467
45+	15.4	31	87.4	16@
Residence				
Rural	35.5	12849	64.3	6724
Urban	24.7	10135	45.5	4991
Mother's education				
No education	32.5	5525	64.3	2508
<5 years completed	36.8	1208	45.5	676
5-7 years completed	36.5	3631	64.3	2076
8-9 years completed	37.0	3914	45.5	2286
10-11 years completed	30.5	3959	64.3	2134
12 or more years completed	23.3	4747	45.5	2035
Religious group				
Hinduism	35.0	16651	61.6	8755
Islam	22.5	3001	48.4	1393
Sikhism	14.6	397	40.6	123
Christianity	25.9	2512	46.8	1229
Other religious group	23.1	423	42.4	215
Social group				
Scheduled caste	39.2	4167	62.9	2355
Scheduled tribe	35.2	3900	69.0	1941
Other backward classes	31.7	8080	59.7	4082
Others	27.4	6837	52.3	3337
BPL status				
Have BPL card	36.9	7132	60.6	3893
Don't have BPL card	29.8	15852	58.5	7822
Wealth Index				
Lowest	38.9	4597	73.4	2214
Second	35.6	4596	55.5	2557
Middle	33.2	4603	53.6	2620
Fourth	27.5	4591	49.7	2501
Highest	17.0	4597	44.4	1823
Total	32.5	22984	59.3	11715

* Responses from all women whether eligible for JSY or not (both institutional and home delivery)

unweighted cases

Table 5.28: Percentage of women who delivered at a health facility according to the government assistance received under JSY by States/UT

Background Characteristics	Received any govt. assistance under JSY		Women who delivered in a government institution and received assistance under JSY	
	Percentage who received JSY assistance	No. of women # *	Percentage who received JSY assistance	No. of women who delivered in govt. institutions #
Low -Performing States				
Assam	50.2	881	87.1	504
Bihar	24.5	1066	66.6	375
Chhattisgarh	27.8	533	74.3	152
Jammu & Kashmir	27.3	622	35.0	453
Jharkhand	12.0	637	50.2	126
Madhya Pradesh	65.5	1046	90.5	715
Orissa	60.7	947	93.5	584
Rajasthan	53.2	908	91.0	530
Uttar Pradesh	35.1	1135	86.5	424
Uttarakhand	29.1	580	81.3	213
Total	40.0	8355	81.1	4076
High-Performing States				
Andhra Pradesh	19.9	896	31.0	442
Arunachal Pradesh	50.0	569	73.5	378
Delhi	14.7	589	28.9	281
Goa	3.5	543	7.3	256
Gujarat	21.8	800	29.7	274
Haryana	18.0	639	42.6	249
Himachal Pradesh	7.0	563	15.0	261
Karnataka	45.1	789	52.9	485
Kerala	21.2	832	37.5	403
Maharashtra	17.1	1004	29.5	389
Manipur	10.1	629	17.9	336
Meghalaya	30.6	581	54.7	315
Mizoram	51.4	619	61.9	375
Nagaland	16.0	639	59.8	216
Punjab	12.4	583	30.6	143
Sikkim	21.4	537	28.8	395
Tamil Nadu	33.1	1104	37.0	718
Tripura	16.3	600	20.3	488
West Bengal	36.5	838	46.3	459
UT Combined	14.1	1275	18.0	776
Total	25.5	14629	36.5	7639

* Responses from all women whether eligible for JSY or not (both institutional and home delivery)

unweighted cases

5.10.3 Financial Assistance Provided Under JSY Scheme

Around 40.5 percent of women who delivered in government institutions received financial assistance under JSY. Proportionately more rural women (47.6 percent) received financial benefits than urban women (25.7 percent).

With regard to time of receipt of money, 25.9 percent received money either before delivery or immediately after delivery and another 30.2 percent received it within 10 days of delivery. About 69.4 percent of women who reported to have received monetary benefits received it by cheque. About 6 percent women reportedly faced difficulty in receiving the money.

Table 5.29: Percentage of women who received monetary benefits under the JSY scheme and when they received them

Response	Institutional delivery		
	Rural	Urban	Total
Percentage who received monetary benefits*	47.6	25.7	40.5
Number of women with institutional delivery # (n)	8992	8713	17705
Time when they received monetary benefits**			
Before delivery	11.6	11.6	11.6
Immediately after delivery	13.3	18.0	14.3
Within first 10 days	29.1	34.3	30.2
11 days – 1 month after delivery	28.6	22.4	27.3
1- 3 months after delivery	13.3	11.0	12.9
Later than 3 months after delivery	4.0	2.6	3.7
Mode of payment**			
Cash	29.4	35.3	30.6
Cheque	70.6	64.7	69.4
Percentage who faced difficulties in receiving incentives**			
Yes	5.9	4.9	5.7
No	94.1	95.1	94.3
Number of women # (n)	3999	2292	6291

* Base= all women who delivered in an institution

** Base = all women who received monetary benefits

unweighted cases

5.11 ASSISTANCE RECEIVED FROM THE ASHA

Besides facilitating women's antenatal check-ups, the ASHA arranges transport for pregnant women to reach the health facility and accompanies her to the health facility. Women who delivered in government institutions were asked whether they received any help from the ASHA. Information collected was analysed according to background characteristics of the women and presented in Table 5.30. The

table indicates that 30.4 percent of women were accompanied by an ASHA to the health facility for delivery and 26.7 percent stayed back with them at the health institution. Further analysis of the data according to background characteristics shows that proportionately more rural women (49.5 percent) were accompanied by an ASHA as compared to urban women (16.6 percent). The table further shows that higher percentage of illiterate; BPL and women in the lowest wealth quintile were accompanied by ASHA to the health facility for delivery and stayed with them when compared to their corresponding counterparts.

Table 5.30: Percentage of women who delivered at a government health facility according to the help received from ASHA and the background characteristics

Background Characteristics	Percentage women reports of an ASHA		
	Accompanied her to health facility	Stayed at health facility	Number of women who delivered in government institution# (n)
Mother's age (in Years)			
15-19	38.3	33.4	654
20-24	41.4	35.6	4686
25-34	44.2	40.0	5892
35-44	51.5	47.7	467
45+	0.6	0.2	16
Residence			
Rural	49.5	44.3	6724
Urban	16.6	12.6	4991
Mother's education			
No education	51.1	44.8	2508
<5 years completed	34.3	28.3	676
5-7 years completed	34.9	31.8	2076
8-9 years completed	41.7	37.6	2286
10-11 years completed	38.2	34.6	2134
12 or more years completed	39.4	33.6	2035
Religious group			
Hinduism	44.5	39.3	8755
Islam	33.0	29.3	1393
Sikhism	43.7	34.3	123
Christianity	29.5	27.1	1229
Other religious group	6.5	5.7	215
Social group			
Scheduled Caste	39.0	33.7	2355
Scheduled Tribe	44.2	39.4	1941
Other backward Classes	49.1	44.2	4082
Others	35.3	30.5	3337
BPL status			
Have BPL card	47.7	42.7	3893
Don't have BPL card	28.0	24.7	7822
Wealth index			
Lowest	55.5	49.6	2214
Second	40.4	35.9	2557
Middle	32.2	27.0	2620
Fourth	29.6	26.0	2501
Highest	22.9	20.6	1823
Total	30.4	26.7	11715

unweighted cases

The data on an ASHA's help was analysed by State to see State-wise differences. Table 5.31 shows that ASHA were more active in low-performing States. For instance, at the government institutions in low-performing States ASHA accompanied women to the

health facility in 54.3 percent of the deliveries, and in 49.1 percent cases she stayed with the women as well. In contrast, in the high-performing States, ASHA accompanied women in 11.2 percent of the deliveries and in 8.9 percent cases she stayed at the health facility.

Table 5.31: Percentage of women who delivered at a government health facility according to the help received from ASHA by States/UT

Background Characteristics	Percentage of women reports on ASHA		
	Accompanied her to health facility	Stayed at health facility	Number of women who delivered in govt. institutions # (n)
Low-Performing States			
Assam	73.9	66.6	504
Bihar	72.0	69.1	375
Chhattisgarh	49.7	45.6	152
Jammu & Kashmir	30.6	23.8	453
Jharkhand	37.4	33.0	126
Madhya Pradesh	33.2	25.5	715
Orissa	76.3	72.9	584
Rajasthan	20.8	17.7	530
Uttar Pradesh	60.3	53.8	424
Uttarakhand	71.3	67.5	213
Total	54.3	49.1	4076
High-Performing States			
Andhra Pradesh	21.9	19.7	442
Arunachal Pradesh	17.7	13.3	378
Delhi	8.6	3.5	281
Goa	0.0	0.0	256
Gujarat	18.4	11.7	274
Haryana	29.1	28.5	249
Himachal Pradesh	0.1	0.1	261
Karnataka	14.3	12.4	485
Kerala	21.5	16.5	403
Maharashtra	4.6	2.8	389
Manipur	13.4	11.4	336
Meghalaya	15.0	12.6	315
Mizoram	26.0	21.1	375

Table 5.31:Contd...

Background Characteristics	Percentage of women reports on ASHA		
	Accompanied her to health facility	Stayed at health facility	Number of women who delivered in govt. institutions # (n)
High-Performing States			
Nagaland	14.0	11.0	216
Punjab	6.8	6.2	143
Sikkim	17.3	13.9	395
Tamil Nadu	4.0	3.1	718
Tripura	25.5	15.7	488
West Bengal	1.1	0.0	459
UTs Combined	11.1	8.4	776
Total	11.2	8.9	7639

unweighted cases

5.12 AVAILABILITY OF BED FACILITY AND COUNSELLING AT THE TIME OF DELIVERY

By way of public health facilities, the Government has made a provision for a separate bed for women who come for delivery. The women who delivered in institutions (both public and private) were asked whether they got a separate bed or not. Table 5.32 indicates that 85.8 percent women got a separate bed. Only 10.3 percent had to share the bed with other women and 3.9 percent did not receive a bed. The table further shows that sharing of the bed was slightly more among rural women, less-educated women, and women from lowest wealth quintiles compared to their counterparts.

After the delivery women should be counselled for new-born care and family planning etc. The

analysis shows that 75.7 percent of the women who delivered in institutions received counselling.

To assess the State differentials in getting separate bed facility, the data was analysed and presented in Table 5.33a. The table shows that the situation of availability of separate beds for delivery was somewhat similar in both low- performing and high-performing States. The table indicates that among low performing States, relatively higher percentage of women in Chhattisgarh, Jammu & Kashmir and Uttar Pradesh shared the bed compared to other States. Similarly among high-performing States, more women from West Bengal, Kerala, Delhi, Union Territories and Andhra Pradesh reportedly shared the bed with others compared to other States. Lesser proportion of women received counselling soon after delivery at institution in Bihar (54.3 percent) and Madhya Pradesh (53 percent).

Table 5.32: Percentage of women who delivered in the institution by the bed facility and counselling received according to background characteristics

Background Characteristics	Bed facility			Percentage who received counselling	No. of women who delivered in institutions #
	Separate	Shared	No bed		
Mother's age (in years)					
15-19	84.1	11.7	4.2	65.8	887
20-24	86.7	10.2	3.1	76.8	6942
25-34	85.6	10.5	3.9	76.9	9159
35-44	80.2	6.6	13.2	66.4	696
45+	66.2	4.6	29.2	27.0	21*
Residence					
Rural	84.2	11.2	4.5	72.6	8992
Urban	89.1	8.4	2.5	81.9	8713
Mother's education					
No education	80.0	12.9	7.1	65.3	3085
<5 years complete	82.2	15.9	1.9	74.2	842
5-7 years complete	86.2	10.4	3.5	72.3	2690
8-9 years complete	87.5	9.6	2.9	75.7	3152
10-11 years complete	88.0	8.9	3.1	82.8	3483
12 or more years complete	90.8	7.1	2.1	86.6	4453
Religious group					
Hinduism	85.9	10.1	4.0	75.9	13170
Islam	83.2	13.4	3.4	71.7	2203
Sikhism	92.2	7.2	0.6	82.6	306
Christianity	85.9	9.7	4.4	80.1	1739
Other religious group	99.5	0.5	0.0	82.8	287
Social group					
Scheduled Caste	83.1	11.8	5.1	73.8	3097
Scheduled Tribe	89.7	8.8	1.5	72.8	2482
Other backward Classes	84.7	10.2	5.1	76.0	6479
Others	88.7	9.7	1.7	77.1	5647
BPL status					
Have BPL card	83.2	12.5	4.2	76.0	5237
Don't have BPL card	87.3	9.0	3.7	75.4	12468
Wealth Index					
Lowest	77.9	13.6	8.5	60.7	2554
Second	84.5	12.7	2.8	74.6	3277
Middle	87.8	9.3	2.9	80.2	3607
Fourth	89.3	8.2	2.4	83.3	4020
Highest	93.2	5.8	1.0	85.9	4247
Total	85.8	10.3	3.9	75.7	17705

* base is < 25.

unweighted cases

Table 5.33a: Percentage of women who delivered in the institution according to the bed facility and counselling received by States/UTs-Total

States/UT	Bed facility			Percentage who received counselling	No. of women who delivered in institutions #
	Separate	Shared	No bed		
Low-Performing States					
Assam	94.5	4.5	1.0	70.9	634
Bihar	87.8	9.4	2.8	54.3	625
Chhattisgarh	85.4	14.3	0.2	77.8	284
Jammu & Kashmir	75.6	24.2	0.3	78.5	536
Jharkhand	96.5	2.8	0.7	72.5	312
Madhya Pradesh	94.1	4.8	1.1	53.0	852
Orissa	91.6	6.0	2.5	68.7	745
Rajasthan	92.2	7.1	0.6	75.4	698
Uttar Pradesh	71.6	14.1	14.3	64.2	690
Uttarakhand	96.8	1.5	1.7	89.3	372
Total	84.6	9.7	5.8	64.9	5748
High-Performing States					
Andhra Pradesh	85.0	14.5	0.5	87.0	843
Arunachal Pradesh	89.5	8.5	2.0	69.6	413
Delhi	85.3	14.4	0.3	86.0	497
Goa	99.8	0.2	-	88.1	542
Gujarat	96.0	3.2	0.8	87.0	642
Haryana	89.6	7.8	2.5	70.9	438
Himachal Pradesh	97.4	2.5	0.0	85.1	366
Karnataka	90.2	7.8	1.9	95.4	705
Kerala	79.2	19.2	1.6	85.4	831
Maharashtra	97.6	0.9	1.4	81.4	819
Manipur	92.8	4.4	2.8	78.0	510
Meghalaya	86.5	12.3	1.2	57.0	405
Mizoram	84.4	15.1	0.5	63.0	513
Nagaland	92.2	7.8	0.0	63.8	258
Punjab	98.0	1.6	0.4	88.3	394
Sikkim	98.1	1.8	0.1	88.2	415
Tamil Nadu	83.7	7.6	8.8	89.1	1080
Tripura	98.0	1.7	0.2	85.8	513
West Bengal	65.6	30.7	3.8	63.4	619
UT COMBINED	78.9	16.8	4.3	85.6	1154
Total	86.5	11.0	2.5	82.4	11957

* base is < 25.

unweighted cases

Table 5.33b: Percentage of women who delivered in an institution according to the bed facility and counselling received by States/UTs-Rural

States/UT	Bed facility			Percentage who received counselling	No. of women who delivered in institutions #
	Separate	Shared	No bed		
Low-Performing States					
Assam	94.6	4.5	0.9	71.4	338
Bihar	88.0	9.4	2.6	53.7	308
Chhattisgarh	87.5	12.5	0.0	76.8	107
Jammu & Kashmir	74.9	24.7	0.4	77.2	252
Jharkhand	95.7	3.6	0.7	76.8	123
Madhya Pradesh	93.9	4.9	1.3	48.5	466
Orissa	91.7	5.6	2.8	66.6	433
Rajasthan	91.4	8.2	0.4	74.5	396
Uttar Pradesh	66.8	15.2	18.0	58.5	386
Uttarakhand	95.2	2.1	2.7	87.9	143
Total	83.0	10.1	7.0	62.2	2952
High-Performing States					
Andhra Pradesh	82.6	17.1	0.3	85.5	517
Arunachal Pradesh	87.7	10.0	2.4	70.6	238
Delhi	69.1	30.9	-	66.0	44
Goa	100.0	-	-	90.3	266
Gujarat	94.2	5.1	0.7	89.3	354
Haryana	88.9	8.2	3.0	64.9	205
Himachal Pradesh	97.6	2.4	0.0	84.0	135
Karnataka	88.9	9.2	1.9	94.8	399
Kerala	80.7	18.0	1.3	85.7	500
Maharashtra	96.7	1.7	1.5	78.8	450
Manipur	92.4	4.6	3.0	75.5	273
Meghalaya	92.3	6.2	1.5	54.8	193
Mizoram	82.1	16.8	1.1	59.4	259
Nagaland	89.6	10.4	0.0	62.1	96
Punjab	98.0	2.0	0.0	85.9	188
Sikkim	98.3	1.6	0.1	90.8	237
Tamil Nadu	84.7	6.9	8.3	89.6	651
Tripura	98.1	1.9	0.0	84.2	283
West Bengal	66.1	30.4	3.5	62.2	339
UT COMBINED	76.3	18.6	5.1	89.2	413
Total	85.4	12.3	2.3	80.9	6040

* base is < 25.
unweighted cases

Table 5.33c: Percentage of women who delivered in an institution according to the bed facility and counselling received by States/UTs-Urban

States/UT	Bed facility			Percentage who received counselling	No. of women who delivered in institutions #
	Separate	Shared	No bed		
Low-Performing States					
Assam	93.7	4.5	1.7	68.6	296
Bihar	86.5	9.2	4.3	57.7	317
Chhattisgarh	80.2	19.0	0.8	80.2	177
Jammu & Kashmir	77.1	22.9	0.0	81.6	284
Jharkhand	97.7	1.7	0.6	66.1	189
Madhya Pradesh	94.7	4.6	0.8	63.6	386
Orissa	91.2	8.0	0.8	79.8	312
Rajasthan	94.5	4.1	1.3	78.1	302
Uttar Pradesh	87.2	10.5	2.3	82.6	304
Uttarakhand	99.5	0.5	0.0	91.6	229
Total	90.2	8.1	1.7	75.0	2796
High-Performing States					
Andhra Pradesh	91.6	7.3	1.1	91.2	326
Arunachal Pradesh	95.3	4.0	0.7	66.6	175
Delhi	86.4	13.3	0.3	87.4	453
Goa	99.5	0.5	0.0	85.9	276
Gujarat	98.5	0.5	1.0	83.8	288
Haryana	91.2	7.1	1.6	82.9	233
Himachal Pradesh	96.5	3.4	0.1	90.7	231
Karnataka	92.6	5.4	2.1	96.3	306
Kerala	74.8	22.7	2.5	84.7	331
Maharashtra	98.6	0.1	1.3	84.1	369
Manipur	93.6	3.9	2.5	83.5	237
Meghalaya	72.2	27.3	0.5	62.4	212
Mizoram	86.1	13.9	0.0	65.6	254
Nagaland	97.3	2.7	0.0	67.0	162
Punjab	98.1	0.9	1.0	91.8	206
Sikkim	97.2	2.8	0.0	71.3	178
Tamil Nadu	82.3	8.3	9.3	88.4	429
Tripura	97.5	1.3	1.2	91.9	230
West Bengal	64.5	31.2	4.3	65.7	280
UT COMBINED	81.2	15.2	3.6	82.7	741
Total	88.5	8.7	2.8	84.9	5917

* base is < 25.

unweighted cases

5.13 TRANSPORT ARRANGEMENT

Table 5.34 presents the analysis of the data on the person who made the transport arrangement for the respondent for reaching health facility according to background characteristics of the

women. Around 69.2 percent of the women reported that their family members made transport arrangements. In case of 7.8 percent of the women transport was arranged by an ASHA. There was no significant difference in this regard when data was examined according to background characteristics of women.

Table 5.34: Percentage of women who delivered in health facility under JSY according to person who made transport arrangement according to background characteristics

Background Characteristics	Self/family	ASHA	ANM	Others	Number of women with JSY benefits and institutional deliveries #
Residence					
Rural	71.7	9.0	0.6	1.7	6724
Urban	62.1	4.6	0.7	0.6	4991
Mother's education					
No education	75.9	10.1	0.6	2.4	2508
<5 years complete	63.0	7.4	1.0	1.0	676
5-7 years complete	67.9	5.8	1.0	1.7	2076
8-9 years complete	66.1	8.9	0.6	0.6	2286
10-11 years complete	62.4	6.3	0.4	0.5	2134
12 or more years complete	69.5	4.8	0.3	1.1	2035
Religious group					
Hinduism	69.4	8.2	0.7	1.3	8755
Islam	64.1	6.1	0.6	2.4	1393
Sikhism	92.9	3.6			123
Christianity	69.6	6.4	0.0	0.1	1229
Other religious group	85.6	0.9	2.2	1.5	215
Social group					
Scheduled Caste	69.9	6.2	0.6	1.6	2355
Scheduled Tribe	72.1	13.7	0.5	3.0	1941
Other backward Classes	68.6	8.3	0.6	0.9	4082
Others	68.5	7.0	0.7	1.6	3337
BPL status					
Have BPL card	69.5	8.6	0.7	1.6	3893
Don't have BPL card	68.9	7.2	0.6	1.3	7822
Wealth index					
Lowest	75.1	10.9	0.4	2.0	2214
Second	64.6	7.4	1.2	1.7	2557
Middle	65.7	5.6	0.5	1.0	2620
Fourth	66.6	5.8	0.6	0.7	2501
Highest	71.1	5.1	0.6	0.5	1823
Total	69.2	7.8	0.6	1.4	11715

unweighted cases

Further analysis of the data according to States is presented in Table 5.35. The table shows that in the States of Orissa, Meghalaya and Assam around 20 percent of the women reported that an ASHA

arranged transport. On the other hand, in States of Himachal Pradesh, Chhattisgarh, Mizoram and Uttarakhand only around 10 percent women reported that ASHA arranged transport.

Table 5.35: Percentage of women who delivered in health facility according to person who made transport arrangement according to States/UTs

Background Characteristics	Self/family	ASHA	ANM	Others	Number of women with JSY benefits and institutional deliveries #
Low-Performing States					
Assam	66.9	21.1	0.1	0.0	504
Bihar	86.2	7.3	0.0	3.1	375
Chhattisgarh	77.4	12.7	3.0	2.2	152
Jammu & Kashmir	82.0	6.2	0.0	1.3	453
Jharkhand	86.4	3.9	0.0	1.9	126
Madhya Pradesh	78.7	13.7	0.7	2.3	715
Orissa	77.0	19.9	0.2	0.4	584
Rajasthan	91.0	4.5	0.4	2.5	530
Uttar Pradesh	85.7	8.3	0.2	0.1	424
Uttarakhand	83.8	10.9	0.0	4.5	213
Total	83.5	9.9	0.3	1.4	4076
High-Performing States					
Andhra Pradesh	94.4	5.3	0.0	0.2	442
Arunachal Pradesh	69.1	8.5	0.0	0.0	378
Delhi	50.3	1.6	0.4	0.3	281
Goa	15.3	2.2	2.8	0.0	256
Gujarat	73.5	7.7	4.5	5.9	274
Haryana	61.4	5.0	1.8	3.6	249
Himachal Pradesh	31.5	2.0	0.0	0.9	261
Karnataka	45.3	8.3	1.9	1.1	485
Kerala	61.3	8.8	0.2	0.0	403
Maharashtra	79.8	3.9	1.0	0.0	389
Manipur	76.2	5.3	0.0	0.0	336
Meghalaya	62.7	20.4	0.0	0.0	315
Mizoram	77.9	11.0	0.0	0.0	375
Nagaland	91.5	6.7	0.0	0.0	216
Punjab	97.5	0.8	0.0	0.5	143
Sikkim	69.4	5.9	0.9	14.9	395
Tamil Nadu	16.1	5.2	0.6	0.0	718
Tripura	92.8	4.8	0.0	1.2	488
West Bengal	38.8	2.3	0.0	3.8	459
UTs Combined	57.8	5.3	1.6	0.7	776
Total	61.6	5.0	1.0	1.5	7639

unweighted cases

5.14 CARE OF THE NEW BORN

The health of the mother and her newborn child depends not only on the health services she receives during pregnancy and delivery, but also on the care she and her child receive during the first few weeks after delivery. Post-partum check-ups within 6 weeks after delivery are particularly important for births that take place in non-institutional settings.

Table 5.36 presents the status of newborn care for home deliveries. Majority (74.3 percent) of the women reported that the baby was wiped and wrapped soon after delivery. Further, in 86 percent of the deliveries, a new or sterilized blade was used to cut the cord. The point worth noting is that around 56.4 percent of the babies delivered at home were bathed immediately after birth. Even at institutions, about 34.7 percent of the newborn were given bath immediately after delivery.

Data on newborn care practice was further analysed according to background characteristics of the women. The analysis shows that there was

not much difference in the practices followed by various categories of respondents (Table 5.37). There was wide State differentials in newborn practices followed in different States (Table 5.38).

Disposable delivery kit (DDK) was used infrequently for home deliveries (12.2 percent). Highest use of DDK was found in Punjab (39 percent).

Table 5.36: Newborn care availed by women who delivered at home during 12 months preceding the survey

New Born Care	Home N=5279
Baby wiped dry and wrapped	74.3
Given bath immediately after delivery	56.4
New/sterilized blade used to cut the cord	86.0
Disposable delivery kit used	12.2

Table 5.37: Percentage of women who delivered at home during 12 months preceding the survey by care to the newborn perceived according to selected background characteristics

Background Characteristics	Baby wiped dry and wrapped	Given bath immediately after delivery	New/sterilized blade used to cut the cord	Disposable delivery-kit used	Number of home deliveries#
Mother's age (in Years)					
15-19	75.9	61.5	91.6	12.8	274
20-24	72.3	56.9	86.1	11.9	1872
25-34	74.8	55.8	84.6	12.8	2724
35-44	79.7	51.3	90.9	9.9	342
45+	91.4	92.0	100.0	5.2	10
Residence					
Rural	75.2	55.3	86.2	11.0	3823
Urban	68.9	62.9	84.6	19.6	1399
Mother's education					
No education	72.6	58.1	86.6	9.7	2425
<5 years complete	76.1	56.3	77.0	12.5	364
5-7 years complete	74.1	59.6	85.6	16.3	931
8-9 years complete	80.0	50.5	88.2	15.5	751
10-11 years complete	77.1	49.4	89.2	16.8	465
12 or more years complete	78.2	45.1	83.2	19.4	286
Religious group					
Hinduism	74.3	53.8	85.7	11.8	3441
Islam	73.3	67.0	87.1	12.0	785
Sikhism	85.5	36.6	94.8	35.1	91
Christianity	67.2	68.4	75.7	5.6	769
Other religious group	86.1	42.7	93.5	25.9	136
Social group					
Scheduled Caste	76.6	55.1	89.7	14.9	1055
Scheduled Tribe	70.1	54.1	83.6	13.4	1406
Other Backward Classes	76.1	53.3	89.1	9.9	1585
Others	71.0	63.9	78.6	12.8	1176
BPL status					
Have BPL card	76.4	56.0	87.5	11.2	1880
Don't have BPL card	72.9	56.7	85.0	12.8	3342
Wealth Index					
Lowest	78.5	52.6	90.8	9.0	2028
Second	73.1	61.2	87.2	15.3	1308
Middle	69.9	62.1	81.2	15.6	987
Fourth	66.1	59.6	70.1	14.0	558
Highest	58.1	59.1	67.8	23.6	341
Total	74.3	56.4	86.0	12.2	5222

unweighted cases

Table 5.38: Percentage of women who delivered at home during 12 months preceding the survey by childcare at the time of delivery according to States/UT

States/UT	Baby wiped dry and wrapped	Given bath immediately after delivery	New/sterilized blade used to cut the cord	Disposable delivery- kit used	Number of home deliveries#
Andhra Pradesh	93.4	65.8	72.0	29.1	53
Arunachal Pradesh	72.2	56.5	66.8	3.2	154
Assam	88.2	67.1	73.8	9.9	246
Bihar	85.9	59.4	99.4	3.4	435
Chhattisgarh	73.3	51.8	89.7	4.3	248
Delhi	66.8	67.2	78.1	10.6	91
Goa	-	-	-	-	-
Gujarat	80.4	81.6	52.3	14.8	157
Haryana	59.2	50.2	70.1	21.8	198
Himachal Pradesh	79.2	44.2	96.2	8.8	194
Jammu & Kashmir	50.4	50.0	64.5	1.1	85
Jharkhand	86.5	46.7	99.4	9.2	320
Karnataka	83.8	77.0	91.3	15.9	84
Kerala	-	-	-	-	-
Madhya Pradesh	61.0	47.9	75.1	20.8	192
Maharashtra	54.9	64.8	93.1	27.2	184
Manipur	72.3	23.8	51.6	25.3	119
Meghalaya	80.3	73.6	56.0	5.8	176
Mizoram	84.0	27.8	45.4	15.0	105
Nagaland	57.0	92.4	74.0	5.2	379
Orissa	84.3	41.5	94.5	11.5	201
Punjab	82.3	42.5	86.8	39.0	189
Rajasthan	84.1	40.8	83.1	31.2	208
Sikkim	70.2	60.5	62.7	12.8	120
Tamil Nadu	83.1	53.0	48.7	8.0	18@
Tripura	38.7	71.8	93.2	26.8	87
Uttar Pradesh	62.0	57.1	83.2	4.0	440
Uttarakhand	53.1	73.5	89.0	9.1	208
West Bengal	81.6	52.5	88.7	10.7	217
UTs combined	69.7	84.7	59.7	22.3	113
Total	74.3	56.4	86.0	12.2	5222

unweighted cases

5.15 POST NATAL CARE

5.15.1 Post Natal Care for Women

Women who had delivered during the last 12 months prior to the date of survey were asked whether they received postnatal care services including any check-up after delivery, number of check-ups received, place of check-up, type of check-up and advice received during the postnatal visits. Table 5.39 shows that 60.1 percent of the women reported receiving postnatal check-ups within the first 10 days of delivery. About 22 percent women received at least 4 check-ups and another 8.6 percent received 3 check-ups in 3-7 days of delivery.

With regard to the place of check-ups, 56.0 percent of the women who received postnatal check-

up went to a public health facility for check-up (government hospital – 39.8 percent, CHC – 5.9 percent, PHC – 7.9 percent). Around 38.1 percent women reported having received postnatal check-ups at a private health facility. Government health facility was more preferred by women in the rural areas (60.2 percent) than urban areas (48.2 percent). Most likely, the place of visit for postnatal check-up depended on the place of their deliveries. Around 5.9 percent of the women received postnatal care at home either by a doctor or ANM. During these visits, the types of services provided to the women were - abdomen checkups (85.5 percent), blood pressure check-up (75.3 percent) and vulva and perineum examination (55.3 percent). During the visit women were also advised on breastfeeding practice (78.0 percent), child care (75.0 percent), nutrition (71.9 percent) and family planning (55.0 percent).

Table 5.39: Percentage of women who delivered during 12 months preceding the survey according to postnatal care, place of check up and type of care received

Responses	Rural	Urban	Total
Percentage of women who reported check-up within the first 10 days	54.6	74.4	60.1
Number of check-ups done during 3-7 days after delivery			
1	12.0	12.4	12.1
2	11.4	14.2	12.2
3	7.4	11.9	8.6
4+	18.1	30.7	21.6
None	51.1	30.9	45.5
Number of women#	12849	10135	22984
Place of check-up during 3 -7 days			
Government facility			
Government Hospital	39.2	41.0	39.8
Dispensary	0.2	0.5	0.3
UHC/UHP/UFWC	0.1	1.1	0.5
CHC/Rural Hospital	7.8	2.2	5.9
PHC	10.5	2.9	7.9
Sub-centre	2.2	0.4	1.5
ICDS Centre	0.2	0.0	0.1
AYUSH Hospital/clinic	0.0	0.1	0.0

Table 5.39: Contd...

Responses	Rural	Urban	Total
Private facility			
NGO/Trust Hospital/clinic	0.9	0.5	0.7
Private Hospital/clinic	31.7	46.9	36.9
Private AYUSH Hospital/clinic	0.3	0.7	0.5
Home care			
Doctor at Home	3.9	2.2	3.3
ANM/Nurse at Home	1.9	0.9	1.6
ASHA at Home	0.2	0.0	0.2
AWW at Home	0.1	0.0	0.1
Others	0.7	0.6	0.7
Type of check-ups done			
Abdomen examined	84.7	87.1	85.5
Vulva and perineum examined	51.7	62.0	55.3
BP and Pulse measured	73.1	79.5	75.3
Post natal Advice given			
Advice on breastfeeding	76.2	81.2	78.0
Advice on baby care	73.4	78.0	75.0
Advice on family planning	52.8	59.1	55.0
Advice on nutrition	70.4	74.8	71.9
Others	34.9	42.0	37.3
Number of women who reported checkups after delivery# (n)	7815	7629	15444

#unweighted cases

5.15.2 Post-Natal Care for New Born

Table 5.40 indicates that 65.6 percent of the new born children received post-natal check-ups. More urban (78.2 percent) women reported that their child was checked within 24 hours of their birth than rural women (60.7 percent). During these visits, the child's umbilicus, skin and eyes were checked (86.4 percent), mother was advised on

breastfeeding practices (79.6 percent) and how to keep the newborn warm (62.5 percent). About 47.0 percent of the women also enquired about the danger signs. These check-ups was more in urban than rural areas. The table further shows that 45.4 percent children received at least 3 postnatal check-ups within 10 days after birth. Public sector (56.7 percent) was the main source of postnatal checkups.

Table 5.40: Percentage of newborns receiving postnatal care and type of care

Responses	Rural	Urban	Total
Percent of newborns who received check-up within 24 hours after birth	60.7	78.2	65.6
Number of newborn children#	12673	9982	22655
Type of check-ups done/advice given			
Checked the umbilicus, skin and eyes	85.4	88.4	86.4
Informed mother, the baby should be warm to touch at the abdomen and soles of the feet should be pink	59.7	68.0	62.5
Breast feeding	77.6	83.6	79.6
Asked for danger signs	44.8	51.3	47.0
Number of check-ups done within 10 days after birth			
1	35.6	23.6	31.7
2	23.6	21.6	22.9
3	13.6	15.4	14.2
4	27.2	39.3	31.2
Place of last newborn check-up			
Public medical sector	60.7	48.5	56.7
NGO/Trust hospital/clinic	0.8	0.5	0.7
Private medical sector	31	47	36.3
At home, by Doctor	3.8	2.6	3.4
At home, by ANM/Nurse	2.1	0.8	1.7
At home, by ASHA	0.4	0.0	0.2
At home, by AWW	0.4	0.0	0.3
Others	0.8	0.5	0.7
Number of newborns who received check-ups after birth#	8366	7842	16208

#unweighted cases

5.16 KNOWLEDGE ABOUT DANGER SIGNS OF NEW BORN

All those women who had their last live/still birth 12 months preceding the survey were asked, "Do you know the danger signs in the newborn?" The information collected (prompted response) was analyzed according to background characteristics of women. Table 5.41 shows that 56.8 percent of the women had the knowledge

that baby not crying immediately after birth is a matter of concern. Around 48.0 percent of the women knew poor sucking of breast, followed by difficulty in breathing (47.5 percent), cold/hot to touch (34.7 percent), blue tongue and lips (30.5 percent), and abnormal movement (30.9 percent) as other danger signs of newborn children. Knowledge about danger signs was better among young women, those residing in urban areas, literate and belonging to highest wealth index (Table 5.41).

Table 5.41: Percentage of women who delivered during 12 months preceding the survey by knowledge of danger signs for newborn according to background characteristics (prompted response)

Background characteristics	Baby does not cry immediately	Blue tongues and lips	Difficulty in breathing	Cold/hot to touch	Abnormal movement	Poor sucking of breast	Develop yellow staining of palm and soles	Number of women#
Mother's age (in Years)								
15-19	52.3	24.2	40.8	33.5	22.6	44.0	28.1	1165
20-24	55.8	29.7	46.9	34.4	30.3	47.1	29.8	8835
25-34	58.3	32.1	49.2	35.3	32.8	49.4	29.3	11910
35-44	58.8	32.4	48.3	34.1	29.6	49.3	23.6	1043
45+	34.2	17.0	19.4	34.2	11.7	31.6	11.6	31
Residence								
Rural	55.7	28.6	46.3	32.8	28.3	46.7	26.9	12849
Urban	59.6	35.3	50.9	39.6	37.5	51.3	35.0	10135
Mother's education								
No education	50.3	22.8	41.1	26.0	21.5	41.2	19.4	5525
<5 years completed	57.5	31.0	47.2	35.4	31.0	46.0	28.9	1208
5-7 years completed	55.5	26.8	43.5	33.8	30.0	46.0	26.5	3631
8-9 years completed	57.9	32.9	49.9	38.1	33.1	51.5	32.5	3914
10-11 years completed	59.2	34.5	51.9	40.3	37.1	53.3	37.9	3959
12 or more years complete	69.6	46.1	60.5	46.9	45.6	58.4	43.5	4747
Religious group								
Hinduism	58.0	30.7	48.1	35.3	31.2	48.7	29.3	16651
Islam	52.2	29.2	47.9	31.9	28.9	47.6	28.5	3001
Sikhism	53.0	25.0	38.1	21.0	35.6	33.5	17.0	397
Christianity	47.0	33.0	37.0	36.4	30.2	37.0	35.9	2512
Other religious group	57.5	30.4	38.2	40.4	30.6	44.0	26.9	423

Table 5.41: Contd...

Background characteristics	Baby does not cry immediately	Blue tongues and lips	Difficulty in breathing	Cold/hot to touch	Abnormal movement	Poor sucking of breast	Develop yellow staining of palm and soles	Number of women#
Social group								
Scheduled Caste	55.5	28.6	44.6	34.0	28.7	45.1	27.3	4167
Scheduled Tribe	50.9	24.7	38.2	27.5	20.3	41.5	20.1	3900
Other backward Classes	55.3	30.4	48.8	34.6	32.8	48.7	29.9	8080
Others	61.7	33.7	50.4	37.3	32.5	51.1	32.0	6837
BPL status								
Have BPL card	52.5	27.4	41.6	33.6	27.9	44.0	28.6	7132
Don't have BPL card	59.3	32.3	51.0	35.4	32.6	50.4	29.5	15852
Wealth Index								
Lowest	50.3	22.2	41.6	25.5	22.1	41.5	18.8	4597
Second	56.2	29.2	45.6	35.7	30.0	47.5	31.2	4596
Middle	57.4	32.6	48.0	37.8	32.8	49.1	33.2	4603
Fourth	62.7	38.4	54.3	40.7	37.8	53.4	36.6	4591
Highest	65.9	40.9	56.7	44.6	42.9	57.2	37.5	4597
Total	56.8	30.5	47.5	34.7	30.9	48.0	29.2	22984

unweighted cases

Table 5.42 shows women's knowledge about dangers sign of newborn in different States. Higher percentage of respondents from the States of Delhi, Jammu & Kashmir, Goa, Gujarat, Himachal

Pradesh, Madhya Pradesh, Orissa, Sikkim, Tamil Nadu Tripura and Uttarakhand had knowledge of danger signs in newborn children than those from other States.

Table 5.42: Percentage of women who delivered during 12 months preceding the survey according to knowledge of danger signs for newborn according to States/UTs (prompted response)

States/UT	Baby does not cry immediately	Blue tongues and lips	Difficulty in breathing	Cold/hot to touch	Abnormal movement	Poor sucking of breast	Develop yellow staining of palm and soles	Number of women#
Andhra Pradesh	45.3	28.7	37.1	42.2	29.1	49.9	50.9	896
Arunachal Pradesh	37.1	24.9	21.1	19.3	18.8	21.0	21.7	569
Assam	51.4	18.0	36.4	26.8	18.9	32.6	23.1	881
Bihar	39.6	13.1	31.8	26.3	13.4	34.7	11.1	1066
Chhattisgarh	44.5	20.7	29.6	24.3	18.3	34.7	15.6	533
Delhi	75.9	40.1	66.8	38.5	39.0	66.7	27.5	589
Goa	64.2	52.4	54.3	52.7	47.4	54.3	58.1	543
Gujarat	81.5	53.3	61.2	55.1	44.7	53.8	44.4	800
Haryana	44.3	21.0	32.3	20.1	20.1	41.4	9.3	639
Himachal Pradesh	74.3	31.8	56.7	36.0	28.8	60.9	19.3	563
Jammu & Kashmir	81.4	46.4	55.0	57.8	47.6	60.5	36.1	622
Jharkhand	57.8	18.6	40.2	32.2	19.6	45.2	15.8	637
Karnataka	46.0	26.4	37.5	30.0	26.6	30.1	19.2	789
Kerala	29.7	23.3	21.5	19.9	20.0	21.1	30.7	832
Madhya Pradesh	61.4	23.9	49.3	25.3	17.0	52.1	14.0	1046
Maharashtra	50.1	28.0	37.6	34.7	28.5	38.4	26.2	1004
Manipur	36.1	19.2	26.4	24.1	21.4	27.7	25.9	629
Meghalaya	43.4	30.2	36.0	31.1	27.9	29.8	20.8	581
Mizoram	59.6	55.9	54.9	53.6	55.0	58.5	58.9	619
Nagaland	55.1	40.2	44.2	35.9	23.9	38.9	25.5	639
Orissa	68.4	20.9	43.7	20.1	36.0	57.1	21.8	947
Punjab	44.4	22.0	34.6	18.1	28.6	27.1	13.5	583
Rajasthan	57.0	32.3	46.3	32.0	28.4	48.5	24.0	908
Sikkim	66.1	32.3	42.4	25.9	22.0	40.8	12.2	537
Tamil Nadu	74.9	56.6	71.4	69.9	70.4	72.5	65.6	1104
Tripura	79.2	68.3	66.3	36.7	46.8	58.8	52.4	600
Uttar Pradesh	65.8	35.4	67.7	32.9	35.6	57.9	26.4	1135
Uttarakhand	69.0	49.5	64.9	29.4	25.8	59.1	37.0	580
West Bengal	56.8	29.6	47.4	36.2	32.1	55.2	40.9	838
UTs combined	60.2	38.4	45.5	40.6	36.3	46.1	36.7	1275
Total	56.8	30.5	47.5	34.7	30.9	48.0	29.2	22984

unweighted cases



Chapter 6

Breastfeeding Practices and Child Nutrition

Infant feeding practices have a significant effect on both mother and child. Mothers are affected through the influence of breastfeeding on the period of postpartum infertility and length of the birth interval. Proper breastfeeding, starting from birth, is important for the physical and mental development of the child. Breast-feeding improves the nutritional status of young children and reduces morbidity and mortality. Breast milk not only provides important nutrients but also protects the infants against infection. Breastfeeding should be initiated immediately after childbirth. The Government of India advocates that infants should be exclusively breast fed for a period of six months of life. Subsequently, adequate and appropriate complementary foods should be added to the infant's diet along with continued breastfeeding in order to provide sufficient nutrients for optimal growth.

6.1 BREASTFEEDING PRACTICES

In the Coverage Evaluation Survey 2009, information on breastfeeding practices was obtained from women who delivered in the past 12 months. Table 6.1 shows the percentage of children born 12 months prior to the survey by initiation of breast-feeding, colostrum feeding, pre-lacteal feeding, and the reason for not feeding colostrum. Data revealed that 33.5 percent of mothers reported that they started breastfeeding the child within one hour of birth, and 24.2 percent began breastfeeding within 1-2 hour after delivery. Only 73.1 percent women started breastfeeding their children within one day of birth. Women from rural areas

(34 percent) were slightly more likely to initiate breastfeeding within one-hour as compared to women from urban areas (32.3 percent).

Data also illustrated that 85.3 percent of women who delivered during the past 12 months fed colostrum to their child. Colostrum feeding was practiced a little more by urban women (87.2 percent) than by women from rural areas (84.6 percent).

Mothers who did not feed colostrum to their child were asked about the reasons for the same. Data revealed that 39.9 percent of mothers did not feed colostrum due to pressure of their relatives followed by misconceptions (17.1 percent) and were advised not to feed colostrum for three days (10.1 percent). Pressure by relatives not to feed colostrum was more reported by rural women (41.5 percent) than by urban women (34.7 percent).

Table 6.1: Percentage of children born during 12 months preceding the survey according to breast feeding practices

Responses	Rural	Urban	Total
Initiation of breastfeeding (hours after delivery)			
<1 hours after delivery	34.0	32.3	33.5
1-2 hours after delivery	24.5	23.4	24.2
2-23 hours after delivery	14.8	17.2	15.4
24-72 hours after delivery	23.9	23.9	23.9
>72 hours after delivery	2.3	2.6	2.3
Did not breastfeed	0.5	0.6	0.5
Number of women who gave live births #	12663	9969	22632
Percent age of mothers who fed colostrum to the child	84.6	87.2	85.3
Percentage of mothers who gave pre-lacteal feed before starting breastfeeding	11.9	10.2	11.5
Percentage of mothers who reported giving the child something to drink/other than breast milk within the first 3 days	38.2	35.9	37.6
Number of women who breastfed the child #	12575	9878	22453
Source of information for breastfeeding initiation			
ANM/LHV/Health worker (male)	30.1	19.0	26.7
AWW	23.8	9.1	19.3
Government doctor	29.1	36.7	31.5
Private doctor	18.9	39.7	25.3
Social worker/NGO worker	1.0	1.6	1.2
Radio/TV	10.8	12.5	11.3
Billboards, Posters at health centre, booklets, newspapers	3.7	5.2	4.2
Husband or family members	32.1	42.0	35.1
ASHA	15.0	2.7	11.2
Traditional birth attendant (Dai)	2.2	2.1	2.2
Friends/Neighbors	16.2	13.7	15.4
Others	1.2	1.4	1.3
Number of women who got information for breastfeeding initiation #	7555	6317	13872

Table 6.1: Contd...

Responses	Rural	Urban	Total
Reasons for not feeding colostrum to the child			
Relatives against feeding colostrum	41.5	34.7	39.9
Against religious belief or traditional practice	16.9	17.8	17.1
Colostrum is harmful to the child	9.0	7.4	8.6
Infant may get diarrhoea	1.4	1.2	1.4
Advised not to feed colostrum for 3 days	10.4	9.5	10.1
Others	23.2	31.7	25.3
Number of women who did not feed colostrum to child #	1390	966	2356

unweighted cases

Table 6.1 further shows the sources from where these women got information. Data showed that 35.1 percent of the women got information from their husband or other family members, 31.5 percent from government doctors, 26.7 percent from ANM/LHV/HW and 25.3 percent from private

doctors. AWW (19.3 percent), Friends/neighbours (15.4 percent), ASHA (11.2 percent), and radio/TV (11.3 percent) were other sources from where one could get the information about breastfeeding practices. More rural women (30.1) reported ANM/LHV/HW as compared to urban women (19.0 percent).

6.2 BREASTFEEDING PRACTICES ACCORDING TO BACKGROUND CHARACTERISTICS

Table 6.2 displays the initiation of breastfeeding and colostrum feeding practices according to selected background characteristics of the mother. The analysis by background characteristics shows that women who belonged to a younger age group, had a higher education, and belonged to higher

assets quintile households, were more likely to start breastfeeding within 24 hours, and within one day of birth, and feed colostrum to the child as compared their counterparts.

Place of delivery and utilisation of ANC services also had an important impact on breast-feeding practices. Early initiation of breastfeeding was more common among children born in an institution and children of mothers who received ANC services (Table 6.2).

Table 6.2: Percentage of mothers who breast fed the child within one hour and one day of birth and fed colostrum according to selected background characteristics

Background characteristics	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Percent mothers who fed colostrum to the child	Number of mothers #
Mother's age (in years)				
15-19	26.6	66.0	80.0	1140
20-24	34.8	73.7	85.2	8623
25-34	34.8	75.3	86.6	11645
35-44	23.2	65.9	80.0	1017
45+	16.1	32.9	96.8	28
Residence				
Rural	34.0	73.3	84.6	12575
Urban	32.3	72.9	87.2	9878
Mother's education				
No education	27.0	64.5	79.8	5379
<5 years complete	40.2	80.3	86.7	1178
5-7 years complete	36.0	75.3	84.0	3559
8-9 years complete	38.3	80.7	89.2	3835
10-11 years complete	39.4	80.8	88.6	3880
12 or more years complete	34.2	75.7	91.7	4622
Religious Group				
Hinduism	33.9	74.4	85.5	16310
Islam	30.0	67.8	82.0	2900
Sikhism	22.5	68.5	92.1	382
Christianity	53.3	83.2	89.6	2444
Other religious groups	41.0	74.4	96.0	417

Table 6.2: Contd...

Background characteristics	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Percent mothers who fed colostrum to the child	Number of mothers #
Social Group				
Scheduled Caste	33.6	73.1	86.1	4073
Scheduled Tribe	37.4	79.2	83.0	3789
Other Backward Classes	31.7	71.8	84.0	7914
Others	35.9	75.1	87.1	6677
BPL status				
Have BPL card	33.2	74.2	83.6	6968
Don't have BPL card	34.0	73.2	86.3	15485
Wealth Index				
Lowest	28.1	66.9	79.8	4494
Second	35.3	75.5	85.1	4498
Middle	38.7	79.3	86.1	4510
Fourth	39.1	76.3	90.4	4478
Highest	32.4	76.2	91.9	4473
Place of Delivery				
Institutional Delivery	36.5	77.9	88.2	17289
Home Delivery	26.2	61.7	77.8	5112
Antenatal Care				
Any ANC	34.3	74.6	86.1	21597
No ANC	20.8	47.4	65.7	856
Total	33.5	73.1	85.3	22453

unweighted cases

6.3 BREAST FEEDING PRACTICES ACCORDING TO STATES/UTs

Table 6.3 presents the percentage of mothers' breastfeeding the child within one hour and one day of birth and colostrum feeding

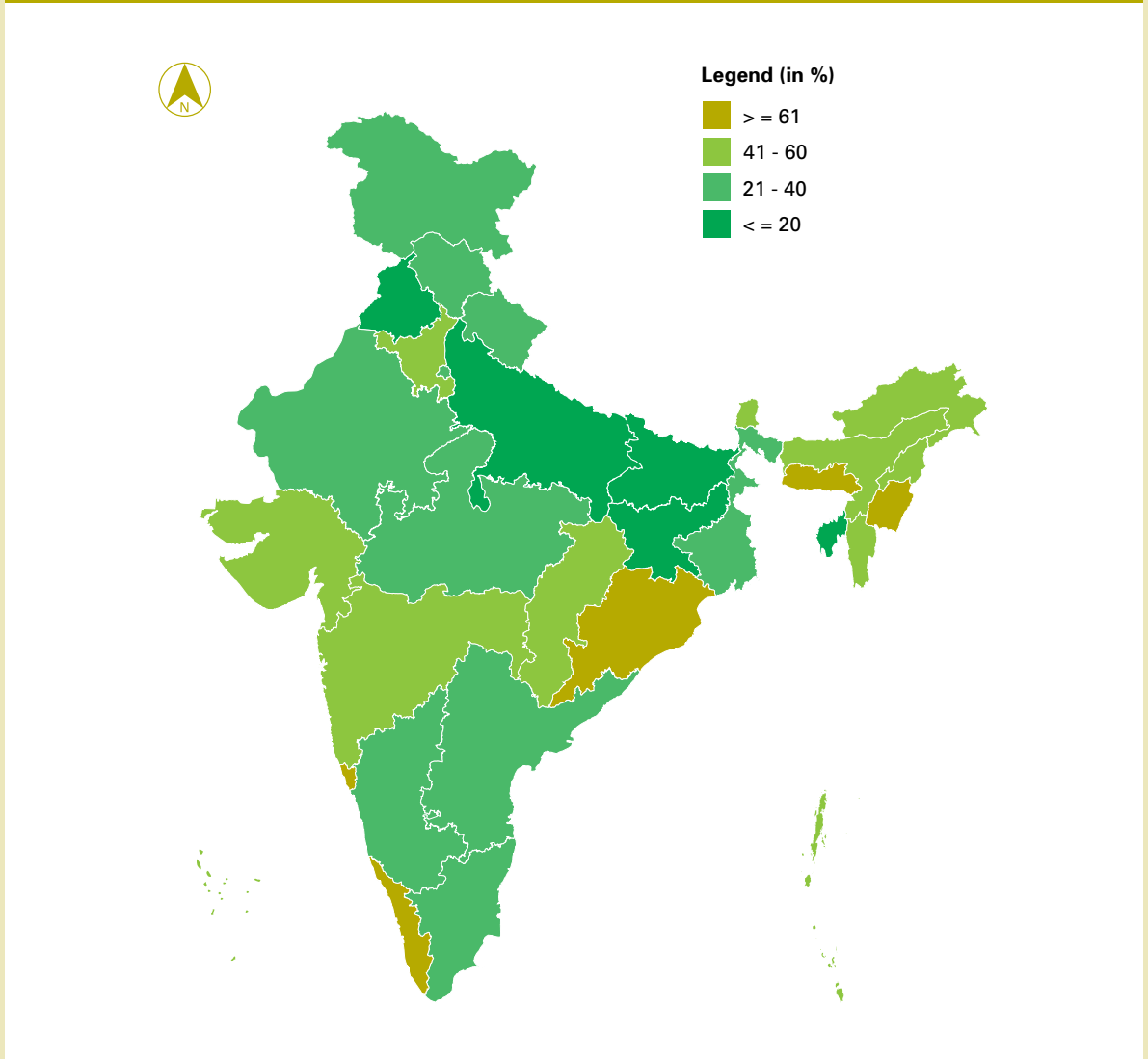
practices according to States/UTs. The State level data indicates that colostrum feeding is almost universal in the States of Goa, Manipur, Mizoram, Tripura and Tamil Nadu. The table further shows that the proportion of children who received colostrum was more than 90 percent in 16 States.

Table 6.3a: Percentage of mothers who breastfed the child within one hour or one day of birth and fed colostrum according to States/UT - Total

States/UT	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Percentage of mothers who fed colostrum to the child	Number of mothers who breastfed the child #
Andhra Pradesh	27.2	66.6	74.1	892
Arunachal Pradesh	55.6	91.0	95.3	546
Assam	46.1	94.3	94.4	857
Bihar	16.5	50.5	77.4	1057
Chhattisgarh	44.4	80.0	87.9	524
Delhi	28.5	80.4	88.6	578
Goa	66.3	87.2	97.6	540
Gujarat	50.0	74.9	80.0	779
Haryana	51.0	86.5	90.8	629
Himachal Pradesh	38.8	76.3	93.8	555
Jammu & Kashmir	20.4	77.6	93.5	591
Jharkhand	15.6	57.7	84.7	631
Karnataka	38.2	77.5	90.0	767
Kerala	66.0	92.7	96.8	791
Madhya Pradesh	31.2	73.2	85.3	1023
Maharashtra	51.3	77.7	91.2	996
Manipur	75.1	92.4	99.0	626
Meghalaya	67.7	95.8	93.4	567
Mizoram	56.5	90.3	99.3	600
Nagaland	49.4	87.8	84.0	623
Orissa	63.7	88.6	93.9	924
Punjab	16.4	54.6	95.1	552
Rajasthan	27.7	75.5	90.6	900
Sikkim	55.7	93.1	95.4	524
Tamil Nadu	39.1	87.7	96.4	1063
Tripura	7.1	90.2	99.2	585
Uttar Pradesh	15.6	55.4	75.1	1126
Uttarakhand	24.9	60.7	68.2	570
West Bengal	29.2	77.8	87.7	821
UTs combined	42.9	79.1	86.9	1216
Total	33.5	73.1	85.3	22453

unweighted cases

Map 6.1: Early Initiation of Breastfeeding



Map not to scale

With regard to initiation of breastfeeding within one hour, data shows that more than 90 percent of mothers in Arunachal Pradesh, Assam, Kerala, Manipur, Meghalaya, Mizoram, Sikkim and Tripura

initiated breastfeeding within one day of child birth. Initiation of breastfeeding and colostrum feeding is slightly higher in urban areas than in rural areas across States (Table 6.3b & c).

Table 6.3b: Percentage of mothers who breastfed the child within one hour or one day of birth and fed colostrum according to States/UT - Rural

States/UT	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth	Percentage of mothers who fed colostrum to the child	Number of mothers who breastfed the child #
Andhra Pradesh	26.5	68.9	73.7	544
Arunachal Pradesh	55.1	91.9	95.6	332
Assam	46.7	94.5	94.5	523
Bihar	17.0	49.9	77.6	637
Chhattisgarh	44.3	81.0	88.2	267
Delhi	28.5	92.2	85.1	58
Goa	70.4	91.0	98.6	265
Gujarat	56.1	76.4	80.7	457
Haryana	54.6	87.9	92.2	336
Himachal Pradesh	38.9	76.9	93.7	283
Jammu & Kashmir	22.6	76.7	92.1	312
Jharkhand	16.6	54.4	83.3	367
Karnataka	39.0	78.1	89.6	450
Kerala	66.8	92.8	96.1	476
Madhya Pradesh	32.0	73.0	84.1	612
Maharashtra	58.0	80.8	90.8	599
Manipur	75.0	91.6	98.8	363
Meghalaya	66.4	95.9	93.0	334
Mizoram	63.8	92.3	99.3	348
Nagaland	49.0	88.4	83.6	349
Orissa	64.9	88.6	93.8	577
Punjab	15.5	55.2	94.0	301
Rajasthan	28.4	75.3	89.1	550
Sikkim	58.6	94.2	95.8	321
Tamil Nadu	42.9	90.6	97.2	644
Tripura	7.3	92.3	99.5	355
Uttar Pradesh	15.1	56.2	75.1	681
Uttarakhand	27.1	63.6	64.8	287
West Bengal	30.5	81.0	87.9	509
UTs combined	45.5	78.3	87.9	438
Total	34.0	73.3	84.6	12575

unweighted cases

Table 6.3c: Percentage of mothers who breastfed the child within one hour or one day of birth and fed colostrum according to States/UT - Urban

States/UT	Percentage who started breastfeeding within one hour of birth)	Percentage who started breastfeeding within one day of birth	Percentage of mothers who fed colostrum to the child	Number of mothers who breastfed the child #
Andhra Pradesh	29.1	60.4	75.4	348
Arunachal Pradesh	57.3	87.4	94.3	214
Assam	41.4	93.2	94.2	334
Bihar	12.5	55.8	75.2	420
Chhattisgarh	44.6	75.7	86.6	257
Delhi	28.5	79.6	88.9	520
Goa	62.0	83.4	96.6	275
Gujarat	39.8	72.3	78.9	322
Haryana	41.9	82.9	87.2	293
Himachal Pradesh	38.1	71.3	94.4	272
Jammu & Kashmir	13.5	80.4	98.0	279
Jharkhand	12.3	69.3	89.5	264
Karnataka	36.5	76.3	90.8	317
Kerala	63.9	92.5	98.6	315
Madhya Pradesh	29.0	73.7	88.4	411
Maharashtra	42.2	73.5	91.7	397
Manipur	75.4	94.7	99.7	263
Meghalaya	72.7	95.4	95.2	233
Mizoram	49.1	88.2	99.3	252
Nagaland	51.4	85.1	85.9	274
Orissa	56.5	89.0	94.8	347
Punjab	18.1	53.4	97.1	251
Rajasthan	25.4	75.9	95.6	350
Sikkim	32.9	84.1	91.8	203
Tamil Nadu	34.3	84.0	95.3	419
Tripura	6.0	79.5	97.9	230
Uttar Pradesh	17.6	52.3	75.1	445
Uttarakhand	18.8	52.4	78	283
West Bengal	25.9	69.5	87.2	312
UTs combined	40.1	80.5	87.7	778
Total	32.3	72.9	87.2	9878

unweighted cases

6.4 CURRENT STATUS OF BREASTFEEDING

Mothers who delivered during the last 12 months preceding the survey as well as mothers of children aged between 12-23 months were asked about the current breastfeeding and exclusive

breastfeeding (breastfeeding the child without giving anything including water) status of the child. Table 6.4 shows that exclusive breastfeeding decreased with increase in the age of the child. Majority (81 percent) of children below two months were exclusively breastfed. The proportion of children exclusively breastfed decreased rapidly with the increase in the age of the child.

Table 6.4: Percentage of children according to breastfeeding status and age

Age in months	Never breastfed	Percentage exclusively breastfeeding till 6 months of age	Breast feeding & consuming				Number of children # (n)
			Water only	Other milk	Other supplements	Others	
<2	0.2	81.0	5.4	9.0	1.1	3.4	2038
2-3	0.1	75.5	7.6	13.1	1.7	1.9	4126
4-5	0.7	56.8	12.7	20.4	7.6	1.9	3829
6-8	0.5	36.6	17.4	24.8	18.8	2.0	5556
9-11	0.5	33.8	17.5	27.4	19.2	1.6	6978
18-23	5.2	34.8	18.4	20.3	17.4	4.1	10483
<4	0.1	77.3	6.9	11.8	1.5	2.4	6164
<6	0.3	69.9	9.0	14.9	3.7	2.2	9993
6-9	0.6	36.8	16.6	24.7	19.4	1.9	7691

unweighted cases

Table 6.5 shows that the median duration of exclusive breastfeeding practiced in India was 3.8 months. The median duration of exclusive breastfeeding was more or less the same across

all the States except in Delhi, Gujarat, Jammu & Kashmir, Nagaland, Sikkim and Tripura where median duration of exclusive breastfeeding was more than the national average.

Table 6.5: Median duration of exclusive breastfeeding to children born to mothers who delivered during 12 months preceding the survey age below 12 months

States/UT	Median duration of exclusive breastfeeding (in months)	Number of children below 12 months of age #
Andhra Pradesh	3.96	893
Arunachal Pradesh	4.87	556
Assam	3.81	863
Bihar	3.61	1058
Chhattisgarh	3.89	525
Delhi	5.5	580
Goa	3.77	541
Gujarat	4.78	774
Haryana	3.91	625
Himachal Pradesh	3.68	555
Jammu & Kashmir	4.48	611
Jharkhand	3.57	633
Karnataka	3.98	766
Kerala	3.58	795
Madhya Pradesh	3.99	1018
Maharashtra	3.56	996
Manipur	3.36	628
Meghalaya	3.93	573
Mizoram	3.74	608
Nagaland	4.88	627
Orissa	3.81	920
Punjab	3.79	562
Rajasthan	3.49	902
Sikkim	4.56	526
Tamil Nadu	3.71	1064
Tripura	4.11	584
Uttar Pradesh	3.21	1123
Uttarakhand	3.98	573
West Bengal	3.07	824
UT Combined	4.19	1224
TOTAL	3.85	22527

unweighted cases

6.5 COMPLEMENTARY FEEDING PRACTICES

The timing and type of complementary foods introduced in an infant's diet also have significant effect on the child's nutritional status. Mothers who delivered during 12 months preceding the survey as well as mothers of children age 12-23 months were asked about the type of complementary feeding given during the first six months. It is

recommended that complementary feeding should start after 6 months of age. When asked about the type of feed given during first 6 months, multiple responses were received. Analysis of the data showed that majority of mothers inadvertently gave water (47.6 percent), other milk (30.2 percent) and other food (19.5 percent) before 6 months of age (Table 6.6). There was no significant difference between practices of mothers from rural or urban areas regarding complementary feeding before 6 months of age.

Table 6.6: Percentage of children below 2 year of age by the type of feeds received during first 6 months of life according to background characteristics

Background Characteristics	Breast milk	Water	Other Milk	Other Food	Number of surviving children less than 2 years of age # (n)
Sex of child					
Male	93.8	55.4	32.2	19.7	11651
Female	92.8	54.1	32.4	18.9	9860
Residence					
Rural	94.7	47.2	29.9	14.0	24554
Urban	90	48.6	30.9	19.9	19320
Mother's education					
No education	94.8	50.0	29.7	11.2	10694
<5 years complete	94.2	49.6	32.4	17.0	2368
5-7 years complete	93.5	48.5	30.2	18.3	6924
8-9 years complete	93.4	47.2	30.7	16.9	7462
10-11 years complete	91.9	45.0	29.4	20.1	7607
12 or more years complete	90.5	42.7	30.7	17.5	8819
Caste/Tribe					
Scheduled Caste	94.9	47.5	28.1	15.5	7866
Scheduled Tribe	93.4	39.7	22.2	15.6	7435
Other Backward Classes	91.1	50.0	31.1	15.9	15377
Others	95.3	46.2	32.8	15.4	13196
BPL status					
Have BPL card	94.7	45.3	27.4	17.9	13765
Don't have BPL card	92.6	48.9	31.9	14.3	30109

Table 6.6: Contd...

Background Characteristics	Breast milk	Water	Other Milk	Other Food	Number of surviving children less than 2 years of age # (n)
Wealth Index					
Lowest	95.5	50.5	29.3	10.7	8818
Second	93.3	45.1	28.4	17.3	8793
Middle	93	46.8	29.5	17.8	8790
Fourth	90.5	47.1	31.3	19.1	8742
Highest	91.8	45.8	34.8	18.5	8731
Total	93.4	47.6	30.2	15.7	43874

unweighted cases

The data further shows that across the States there were no significant differences in giving different types of complementary food to the child. Early complementary feeding such as other milk or

food before 6 months of age was practiced on significantly higher levels in States like Arunachal Pradesh, Delhi, Nagaland, Haryana, Uttarakhand, Karnataka, Goa, West Bengal and Chhattisgarh.

Table 6.7: Percentage of children by the type of feeds received during first 6 months of life according to States and UTs

States/UT	Breast milk	Water	Other Milk	Other Food	Number of surviving children less than 2 years of age # (n)
Andhra Pradesh	97.6	31.3	12.6	32.6	1751
Arunachal Pradesh	97.6	36.0	36.6	25.3	1081
Assam	99.3	28.1	22.8	14.5	1723
Bihar	99.1	56.6	34.6	6.0	2075
Chhattisgarh	97.7	37.7	22.3	31.9	1036
Delhi	90.9	63.0	64.4	34.1	1138
Goa	98.0	62.4	35.0	21.2	1057
Gujarat	86.5	41.9	23.6	10.3	1529
Haryana	98.7	55.5	54.4	18.3	1241
Himachal Pradesh	96.9	18.9	26.7	7.0	1052
Jammu & Kashmir	98.5	12.0	12.9	12.1	1150
Jharkhand	98.3	47.2	25.5	9.2	1232

Table 6.7: Contd...

States/UT	Breast milk	Water	Other Milk	Other Food	Number of surviving children less than 2 years of age # (n)
Karnataka	95.0	37.8	33.2	27.3	1448
Kerala	98.1	35.4	15.8	23.9	1479
Madhya Pradesh	98.5	46.5	30.0	19.6	2036
Maharashtra	98.6	60.2	24.9	20.0	1982
Manipur	99.9	26.0	21.6	25.9	1204
Meghalaya	99.0	44.5	24.9	26.6	1124
Mizoram	97.8	36.4	20.5	32.4	1116
Nagaland	96.0	56.0	40.1	37.7	1251
Orissa	96.6	42.9	17.5	18.1	1801
Punjab	96.2	45.8	27.2	3.8	1085
Rajasthan	93.3	53.0	31.3	7.0	1716
Sikkim	99.6	29.6	25.4	10.5	1028
Tamil Nadu	68.5	35.7	28.7	18.4	2065
Tripura	98.6	19.1	30.8	9.6	1177
Uttar Pradesh	96.1	57.1	38.6	6.1	2196
Uttarakhand	94.5	45.5	51.2	20.2	1116
West Bengal	98.5	55.0	40.5	13.9	1616
UTs combined	94.1	48.4	34.3	20.3	2369
Total	93.4	47.6	30.2	15.7	43874

unweighted cases

At six months of age, the introduction of complementary food is important for meeting the protein, energy, and micronutrient needs of the children. Table 6.8 shows that 40.7 percent of mothers started giving water, 28.1 percent gave other animal milk and 12.2 percent of the mothers had started with other supplements to the child before 6 months of age. About 37.9 percent of the

mothers started giving other fluids such as juice to the child, 12.9 percent had started with semi-solid food and 2.2 percent with solid diet. This indicates complementary feeding was started early for children below six months of age by a significant proportion of mothers. However, very correctly, 62.6 percent of mothers started semi-solids and 41.8 percent gave solid food to their child after 6 months of age.

Table 6.8: Percentage of infants according to the type of feeds received during first 6 months of life and age of starting complementary feeding

Responses	Rural	Urban	Total
Type of feed given during first 6 months			
Breast milk	96.7	96.0	96.5
Water	40.0	42.5	40.7
Other milk	27.5	29.8	28.1
Other food supplements	11.2	14.8	12.2
Others	1.9	2.2	2.0
Age of Starting			
i. Other fluids			
<6 months	37.9	38.0	37.9
6+ months	44.4	46.2	44.9
Not started so far	17.8	15.9	17.2
ii. Semi-solid food			
<6 months	12.3	14.5	12.9
6+ months	61.6	64.9	62.6
Not started so far	26.0	20.7	24.5
iii. Solid food			
<6 months	2.0	2.6	2.2
6-9 months	40.2	45.8	41.8
9+ months	3.9	4.2	4.0
Not started so far	53.8	47.4	52.0
Number of children below 1 year of age #	12518	9845	22363
Type of liquids given during the previous one day			
Plain water	89.0	90.6	89.5
Commercially produced infant food	42.5	51.7	45.1
Any other milk such as tinned, powdered or animal milk	54.5	59.6	56.0
Fruit juice	7.7	12.2	9.0
Tea/coffee	21.3	19.5	20.8
Other liquids	15.1	15.2	15.1
Number of children <1 year started getting liquids #	6806	5844	12650

unweighted cases

6.6 VITAMIN A COVERAGE

Vitamin A deficiency is a common nutritional deficiency disorder throughout the world. The National Programme targets children under age five years and administers oral doses of Vitamin

A every six months starting at nine months of age. Mothers of children aged 12-23 months were asked whether their children ever received a dose of Vitamin A. Those who said that their child had received at least one dose of Vitamin A were asked how long ago it was given. Table 6.9 shows the percentage of children aged

12-23 months who received at least one dose of Vitamin A and who received a dose of Vitamin A within the past six months according to selected background characteristics.

The table further shows that 65.4 percent of children age 12-23 months received at least one dose of Vitamin A, and 59.4 percent received it within the past six months. Proportionately more children of mothers aged 20-24 years (69.9 percent) received at least one dose of Vitamin A than that of 35-44 year-old mothers (48.9 percent).

Children living in urban areas, children of more educated mothers and children of higher wealth quintile households are more likely than other children to receive Vitamin A supplementation (Table 6.9). Comparatively lesser children of birth order 4 or more (47.4 percent) received at least one dose of Vitamin A than first- (71.3 percent), second- (67.9 percent) and third- (60.2 percent) order births. Similarly, lower percentage of children from scheduled caste (64.7 percent), scheduled tribe (59.4 percent) and other backward classes (62.7 percent) received at least one dose of Vitamin A than that of other castes (71.5 percent).

Table 6.9: Percentage of children age 12-23 months who received vitamin A according to selected background characteristics

Background Characteristics	First dose of Vitamin A	Received at least one dose of Vitamin A	Received one dose of Vitamin A during past six months	No. of children in 12-23 months age #
Mother's Age (in Years)				
15-19	67.1	67.7	63.2	591
20-24	68.8	69.9	64.0	7541
25-34	62.3	64.0	57.6	12713
35-44	47.6	48.9	44.3	1456
45+	58.1	60.1	55.1	297
Sex of Child				
Male	64.3	65.6	59.8	12217
Female	63.7	65.2	59.1	10387
Birth Order				
1	70.0	71.3	65.6	9230
2	66.3	67.9	62.2	8157
3	58.8	60.2	53.6	3032
4+	46.3	47.4	40.6	2179
Residence				
Rural	63.2	64.6	58.3	12635
Urban	66.0	67.4	62.5	9969
Mother's Education				
No education	50.6	52.1	46.5	5732
<5 years complete	65.3	66.8	59.7	1258
5-7 years complete	69.0	71.0	62.7	3542
8-9 years complete	72.7	74.1	68.1	3760

Table 6.9: Contd...

Background Characteristics	First dose of Vitamin A	Received at least one dose of Vitamin A	Received one dose of Vitamin A during past six months	No. of children in 12-23 months age #
10-11 years complete	75.6	76.8	71.2	3915
12 or more years complete	71.6	72.5	68.6	4397
Religious group				
Hinduism	64.4	65.9	59.8	16296
Islam	60.2	61.1	55.4	2929
Sikhism	72.0	72.5	71.0	416
Christianity	62.2	64.0	59.2	2535
Other religious group	73.3	75.6	69.0	428
Social group				
Scheduled Caste	63.7	64.7	59.5	3972
Scheduled Tribe	57.1	59.4	51.6	3929
Other backward Classes	61.2	62.7	57.2	7866
Others	70.1	71.5	64.7	6837
BPL status				
Have BPL card	65.5	67.1	60.4	7146
Don't have BPL card	63.1	64.4	58.9	15458
Wealth Index				
Lowest	53.4	54.9	49.3	4520
Second	66.8	68.3	61.7	4522
Middle	69.9	71.0	63.8	4520
Fourth	68.9	70.7	65.1	4522
Highest	71.8	72.9	68.1	4520
Total	64.0	65.4	59.4	22604

unweighted cases

Table 6.10 shows the State-wise percentage of children who received the first dose of Vitamin A, at least one dose of Vitamin A, and at least one dose of Vitamin A supplement within 6 months preceding the survey. The percentage of children who received at least one dose of Vitamin A supplementation ranged from 28.2 percent in Nagaland to 92.7 percent in Himachal Pradesh. The percentage of children receiving at least

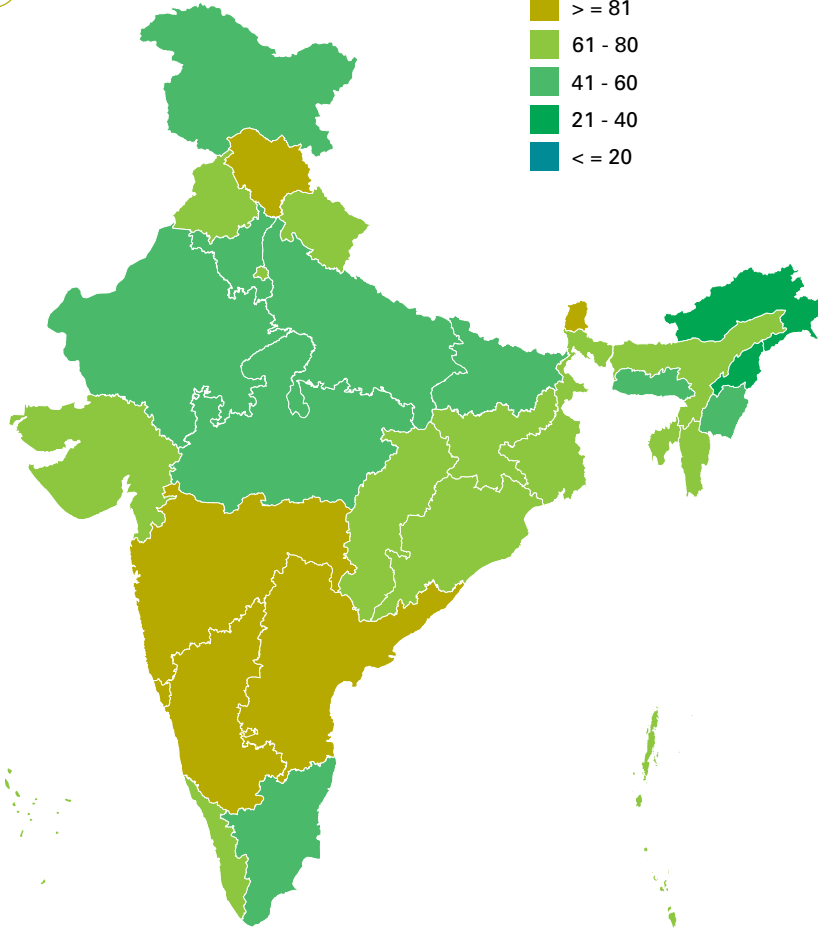
one dose of Vitamin A was less than 50 percent in Arunachal Pradesh (43.1 percent), Bihar (49.4 percent), Madhya Pradesh (48.8 percent), Manipur (48.9 percent) and Uttar Pradesh (49.1 percent). The States with high rates of at least one dose of Vitamin A supplement were Andhra Pradesh (84.7 percent), Goa (87.8 percent), Sikkim (90.1 percent), Karnataka (87.1 percent) and Maharashtra (84.5 percent).

Map 6.2: Vitamin A First Dose



Legend (in %)

- > = 81
- 61 - 80
- 41 - 60
- 21 - 40
- < = 20



Map not to scale

Table 6.10: Percentage of children age 12-23 months who received Vitamin A according to States/UT

States/UT	First dose of Vitamin A	Received at least one dose of Vitamin A	Received one dose of Vitamin A during past six months	Number of children of 12-23 months age #
Andhra Pradesh	84.4	84.7	78.4	887
Arunachal Pradesh	40.0	43.1	38.4	585
Assam	69.3	71.1	65.5	875
Bihar	49.0	49.4	45.1	1055
Chhattisgarh	62.1	67.3	56.2	522
Delhi	65.2	67.7	63.3	585
Goa	87.8	87.8	70.6	534
Gujarat	66.9	69.3	57.5	786
Haryana	55.9	58.1	50.8	634
Himachal Pradesh	87.8	92.7	79.0	547
Jammu & Kashmir	59.0	61.6	54.9	620
Jharkhand	63.3	63.3	58.7	635
Karnataka	85.5	87.1	80.6	751
Kerala	66.8	68.2	65.9	760
Madhya Pradesh	45.1	48.8	44.7	1040
Maharashtra	82.6	84.5	68.9	1020
Manipur	47.9	48.0	46.7	630
Meghalaya	58.1	58.8	53.2	586
Mizoram	74.4	74.6	73.9	624
Nagaland	28.2	29.9	25.4	641
Orissa	69.7	71.0	65.3	889
Punjab	73.1	73.4	71.7	570
Rajasthan	59.9	60.5	57.2	894
Sikkim	90.1	82.6	88.7	404
Tamil Nadu	52.6	56.6	53.9	1068
Tripura	68.0	68.0	65.8	603
Uttar Pradesh	48.9	49.1	44.4	1112
Uttarakhand	60.8	60.8	59.6	576
West Bengal	73.4	74.1	71.9	827
UTs combined	67.8	71.4	65.8	1213
Total	64.0	65.4	59.4	22604

unweighted cases

6.7 USE OF IODIZED SALT

Salt was tested for iodine content by the interviewers at the household level. Overall, 71.1 percent of the households were using cooking salt which was found to be iodized at the recommended level of 15 ppm¹² or more. Only 9.3 percent of the households used salt that was not iodized at all and 19.3 percent used salt that was iodized inadequately (<15 ppm). Rural-urban differential in salt iodization was pronounced. Around 83.2 percent of households in urban areas used salt with 15 ppm or more

iodine content compared with 66.1 percent of households in rural areas. The proportion of households using non-iodized salt was more in rural areas (11.0 percent) as compared to their urban counterparts (5.1 percent).

The use of iodized salt was high in north-eastern States and in States of Delhi, Goa, Haryana, Himachal Pradesh, J&K, Punjab and all UTs ranging from 80 percent to 94 percent. In the States of Karnataka, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Uttar Pradesh, Orissa, and Jharkhand use of non-iodized salt seemed more common compared to other States (Table 6.11).

Table 6.11: Percentage of households with iodine content of the common salt used for cooking according to States and UTs - Total

States/UT	Not iodised (0 ppm *)	Inadequately iodised (0.1 - 15 ppm *)	Iodised (≥ 15 ppm *)	Percentage of sampled Households where salt was tested	Number of Households # (n)
Andhra Pradesh	20.3	16.0	63.6	99.9	1763
Arunachal Pradesh	2.3	17.4	80.2	99.9	1127
Assam	5.9	19.5	74.6	100.0	1733
Bihar	9.9	35.1	54.4	99.5	2081
Chhattisgarh	9.2	59.2	31.6	100.0	1054
Delhi	1.6	5.5	92.6	99.7	1174
Goa	3.8	10.3	85.9	100.0	1077
Gujarat	6.1	22.3	71.4	99.9	1584
Haryana	0.3	13.0	86.7	100.0	1263
Himachal Pradesh	0.7	7.7	91.5	100.0	1102
Jammu & Kashmir	4.3	11.2	83.0	98.4	1238
Jharkhand	14.4	43.5	41.4	99.3	1262
Karnataka	40.1	23.9	35.5	99.6	1496
Kerala	2.7	7.3	89.2	99.2	1530
Madhya Pradesh	18.5	18.1	63.0	99.6	2086
Maharashtra	8.4	14.0	77.4	99.8	2024
Manipur	0.3	1.2	98.3	99.9	1224
Meghalaya	0.5	1.5	98.0	100.0	1159

¹² ppm = parts per million

Table 6.11: Contd...

States/UT	Not iodised (0 ppm *)	Inadequately iodised (0.1 - 15 ppm *)	Iodised (≥ 15 ppm *)	Percentage of sampled Households where salt was tested	Number of Households # (n)
Mizoram	1.1	3.7	94.9	99.8	1222
Nagaland	0.3	2.4	97.1	99.8	1278
Orissa	15.5	20.4	64.0	99.9	1791
Punjab	6.0	8.4	85.3	99.6	1149
Rajasthan	9.9	32.2	57.0	99.2	1796
Sikkim	0.7	7.3	92.0	100.0	1064
Tamil Nadu	20.6	21.6	57.5	99.7	2152
Tripura	1.5	4.4	94.1	100.0	1195
Uttar Pradesh	17.6	39.6	42.5	99.7	2217
Uttarakhand	9.7	28.4	61.6	99.8	1124
West Bengal	8.2	40.6	50.7	99.6	1649
UTs combined	6.1	13.0	80.5	99.6	2444
Rural	11.0	22.6	66.1	99.7	25170
Urban	5.1	11.4	83.2	99.7	19888
Total	9.3	19.3	71.1	99.7	45058

* ppm = parts per million

unweighted cases



Chapter 7

Child Morbidity and Care Seeking Practices

Diarrhoea and Acute Respiratory Infection (ARI) are the leading causes of childhood morbidity and mortality. Early diagnosis and treatment can prevent a large proportion of diarrhoea and ARI related deaths. This chapter presents data about knowledge of the mother, and prevalence and management practices of diarrhoea and ARI for children aged less than two years. The information was collected from 45,140 mothers/care givers of children below 2 years.

7.1 MANAGEMENT OF DIARRHOEA

Diarrhoea is one of the major causes of death among children under five years of age. Deaths from acute diarrhoea are most often caused by dehydration due to loss of water and electrolytes from the body. Nearly all dehydration-related deaths can be prevented by prompt administration of rehydration solutions. Deaths from diarrhoea constitute a significant proportion of all child deaths. The Government of India launched the Oral Rehydration Therapy (ORT) programme as one of its priority activities for child survival. The 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 available free of cost and mothers are taught how to use them. During this survey, mothers of children below 2 years were asked a series of questions about episodes of diarrhoea suffered by their children in the two weeks before

the survey, feeding practices during diarrhoea, the treatment of diarrhoea and their knowledge and use of ORS.

Table 7.1 shows that 14.3 percent of children suffered from diarrhoea during the 14 days preceding the survey. As there are seasonal variations in the prevalence of diarrhoea, this percentage can't be assumed to reflect the situation throughout the year. Prevalence of diarrhoea was high among children aged 6-11 months (17.2 percent) and 12-23 months

(15.7 percent) as compared to below 6-month-old children (13.6 percent). As expected, mother's education, wealth index and type of sanitation facility had an influence on the prevalence of diarrhoea. Only 12.9 percent children of mothers who had higher secondary or more education had diarrhoea as compared to children of illiterate mothers (16.5 percent). Similarly, prevalence of diarrhoea was lower among children belonging to higher wealth quintile households (12.3 percent) than lowest wealth quintile households (16.8 percent).

Table 7.1: Percentage of children under two years who had diarrhoea during two weeks preceding the survey by selected background characteristics

Background characteristics	Percentage of children with diarrhoea	Number of surviving children under 2 years # (n)
Child's Age (in months)		
0-5	13.6	9985
6-11	17.2	12527
12-23	15.7	22598
Gender *		
Male	16.5	12212 *
Female	14.7	10386 *
Residence		
Rural	15.3	25236
Urban	16.3	19904
Mother's Age (in years)		
<20	16.1	1734
20-24	15.5	16209
25-34	15.5	24389
35-44	16.4	2480
45+	13.0	328
Mother's Education		
No education	16.5	11140
<5 years complete	17.5	2434
5-7 years complete	15.9	7107
8-9 years complete	15.2	7606
10-11 years complete	15.0	7800
12 or more years complete	12.9	9053

Table 7.1: Contd...

Background characteristics	Percentage of children with diarrhoea	Number of surviving children under 2 years # (n)
Religious Group		
Hinduism	14.7	32640
Islam	20.0	5851
Sikhism	14.0	803
Christianity	13.6	4948
Others	25.5	848
Social Group		
Scheduled Caste	15.4	8050
Scheduled Tribe	14.3	7738
Other backward Classes	16.2	15798
Others	15.2	13554
BPL Status		
Have BPL card	16.4	14135
Don't have BPL card	15.1	31005
Wealth Index		
Lowest	16.8	9012
Second	16.6	9035
Middle	16.0	9050
Fourth	14.0	9015
Highest	12.3	9028
Drinking Water Source		
Improved	15.7	41796
Not-improved	13.9	3344
Sanitation facility		
Improved and not shared	14.1	26538
Not Improved	16.7	18602
Total	15.5	45140

* Data for children aged 12-23 months

unweighted cases

Prevalence of diarrhoea varied considerably between States/UTs. Table 7.2 shows that prevalence of diarrhoea during 2 weeks

preceding the survey ranged from 4.8 percent in Sikkim and 5.0 percent in Himachal Pradesh to 26.2 percent in Karnataka.

Table 7.2: Percentage of children under 2 years who had diarrhoea during two weeks preceding the survey by States/UT

States/UT	Percentage of children with diarrhoea	Number of surviving children under 2 years # (n)
Andhra Pradesh	14.2	1780
Arunachal Pradesh	10.1	1141
Assam	7.8	1738
Bihar	17.8	2114
Chhattisgarh	13.7	1047
Delhi	25.5	1164
Goa	11.1	1075
Gujarat	24.4	1560
Haryana	20.0	1259
Himachal Pradesh	5.0	1102
Jammu & Kashmir	18.3	1231
Jharkhand	13.6	1268
Karnataka	26.2	1518
Kerala	5.1	1572
Madhya Pradesh	20.6	2062
Maharashtra	17.9	2017
Manipur	15.3	1258
Meghalaya	9.5	1159
Mizoram	15.8	1231
Nagaland	11.8	1268
Orissa	9.3	1809
Punjab	12.2	1132
Rajasthan	15.5	1796
Sikkim	4.8	1061
Tamil Nadu	15.3	2131
Tripura	13.1	1187
Uttar Pradesh	14.4	2236
Uttarakhand	8.0	1150
West Bengal	8.6	1652
UTs combined	14.4	2422
Total	15.5	45140

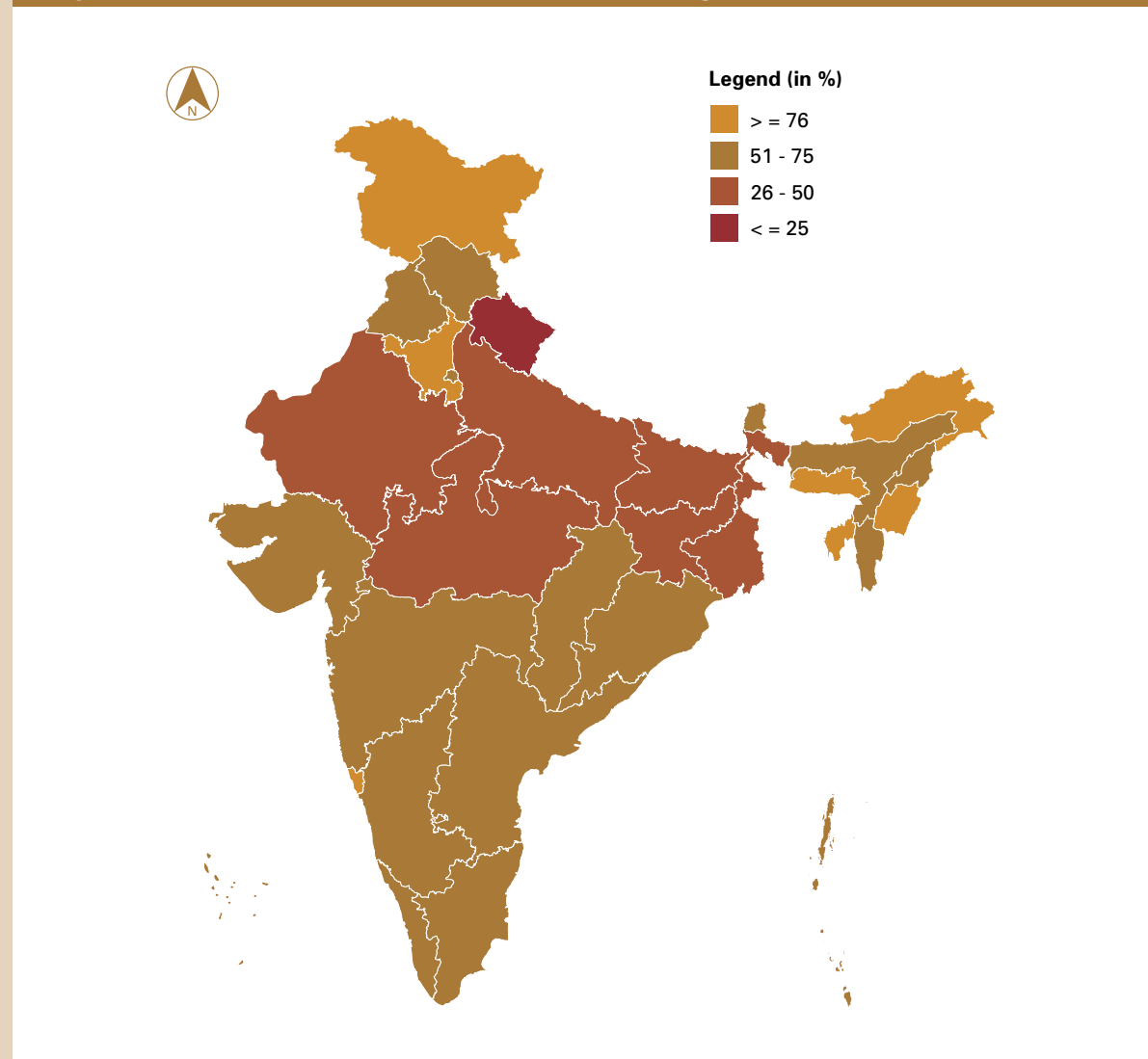
unweighted cases

7.2 TREATMENT- SEEKING BEHAVIOUR FOR DIARRHOEA

Table 7.3 shows that 76.1 percent of the children who suffered from diarrhoea during 2 weeks preceding the survey received some advice or treatment. Large proportion of them (48.4 percent) received advice or treatment from a private health facility or provider. Another 20.9 percent received advice/treatment from a government health facility or provider. The table further shows that 42.8 percent of the mothers whose children suffered from diarrhoea during the two weeks preceding the survey gave ORS to their children. More urban mothers (52.1 percent) gave ORS to their children than rural mothers (39 percent). The use of ORS increased with the rise in education level of the mother and increase in wealth quintile. For instance, 32.5 percent of illiterate mothers reportedly gave ORS to their children during diarrhoea. This percentage increased to 60.5 percent among mothers educated up to at least senior secondary. Similarly the use of ORS during diarrhoea was reported in 29.7 percent of children from lowest quintile households increasing to 60.1 percent among children from highest quintile households. Children from urban areas, children of younger mothers, and children belonging to households with higher wealth quintiles were more likely to be taken to the health facility/ provider for treatment of diarrhoea (Table 7.3).

The percentage of children who reported receiving some treatment/advice for diarrhoea varied among States. Only 34.8 percent mothers reported seeking advice/treatment in Nagaland. The States where more than 80 percent of the mothers received advice/treatment were - Chhattisgarh, Goa, Himachal Pradesh, Kerala, Maharashtra, Meghalaya, Punjab, Rajasthan, Tripura and Uttarakhand (Table 7.4). The table further shows that use of ORS also varied widely among States. Use of ORS for treatment of diarrhoea was low in Bihar (22.4 percent), Jharkhand (21.6 percent), Uttar Pradesh (14.3 percent) and Uttarakhand (13.4 percent). On the other hand, in Arunachal Pradesh, Delhi, Goa, Haryana, Jammu & Kashmir, Manipur, Meghalaya, and Tripura more than 70 percent of mothers used ORS for the treatment of diarrhoea.

Map 7.1: ORT or Increased fluids for Diarrhoea Management



Map not to scale

Table 7.3: Health seeking practices and treatment received by children less than 2 year of age who had diarrhea according to selected background characteristics

Background characteristics	Percentage of children who received advice/treatment	No. of children who received advice/treatment	Percentage of children with diarrhoea taken to					Oral rehydration therapy			Increased fluid,	Any ORT or increased fluid	Other treatment including home remedy	No treatment	Number of children <2 year of age with diarrhea # (n)
			Any health care facility/provider	Govt. health facility/provider	Pvt. health facility/provider	Other	ORS packet	Gruel	Ether gruel or ORS						
Child's Age (in months)															
0-5	68.4	796	61.9	17.2	46.1	4.2	30.0	3.0	31.7	9.1	38.2	56.0	5.8	1169	
6-11	77.1	1430	70.6	21.7	50.3	2.0	44.0	12.4	48.9	8.2	51.5	46.0	2.5	1942	
12-23	78.4	2606	68.5	21.8	48.2	5.5	47.1	20.0	56.3	10.7	60.7	35.9	3.4	3353	
Gender *															
Male	80.8	1397 *	69.4	21.1	50.0	7.1	47.5	21.5	58.8	10.8	63.1	34.1	2.8	1828 *	
Female	74.9	1131 *	66.9	22.8	45.3	3.5	46.0	18.4	53.0	11.1	57.8	37.9	4.4	1524 *	
Residence															
Rural	75.2	2563	64.9	21.9	44.5	5.6	39.0	13.8	45.9	9.7	50.8	45.8	3.4	3638	
Urban	78.2	2269	74.8	18.5	57.9	0.9	52.1	16.1	57.5	9.7	60.5	35.5	4.0	2926	
Mother's Age (in years)															
15-19	78.8	201	71.6	17.4	58.2	6.2	33.3	15.3	41.3	7.3	43.3	54.1	2.6	278	
20-24	78.3	1836	72.0	21.4	52.4	2.9	43.2	15.2	50.4	9.1	54.4	41.4	4.2	2423	
25-34	74.4	2519	68.5	21.5	45.1	4.6	45.1	13.4	50.3	10.1	54.8	42.3	2.9	3384	
35-44	73.8	247	54.2	1w1	38.7	9.3	30.0	16.5	41.0	13.2	49.4	44.9	5.7	341	
45+	53.9	29	44.9	15.2	29.7	8.7	44.4	24.9	48.1	12.5	48.3	39.0	12.7	38	
Mother's Education															
No education	73.8	1283	60.8	20.2	42.0	8.0	32.5	10.3	38.7	10.6	44.9	51.9	3.2	1740	
<5 years complete	67.4	289	62.5	19.9	45.1	0.2	39.6	9.5	43.5	12.6	48.5	50.2	1.4	414	
5-7 years complete	77.6	762	69.9	21.4	50.2	3.6	42.7	15.7	50.3	7.6	54.0	43.4	2.6	1036	
8-9 years complete	82.3	829	76.9	22.3	55.9	2.1	46.8	16.4	53.9	8.3	56.3	39.6	4.1	1058	
10-11 years complete	76.5	836	72.3	23.7	50.2	1.4	53.6	18.4	58.7	10.2	62.3	33.2	4.5	1111	
12 or more years complete	77.2	842	73.1	18.3	56.3	1.6	60.5	21.9	68.5	9.7	70.8	23.5	5.7	1105	
Religious Group															
Hinduism	74.8	3489	66.1	22.5	45.0	4.4	43.7	15.0	50.3	9.3	54.2	41.9	3.9	4600	
Islam	79.1	790	71.6	14.7	59.1	4.5	38.8	9.7	43.2	13.1	50.2	47.7	2.1	992	
Sikhism	82.7	101	79.3	16.3	64.2	2.9	41.7	12.0	48.8	3.2	48.8	44.8	6.5	116	
Christianity	77.2	349	69.5	34.5	36.9	1.8	55.6	22.9	61.2	7.3	63.9	27.2	8.9	608	
Others	88.7	103	85.6	10.4	75.3	1.9	35.5	31.8	55.8	0.7	55.9	43.8	0.2	148	
Social Group															
Scheduled Caste	78.0	928	69.4	22.9	48.3	6.5	42.6	16.7	51.0	9.6	54.2	41.4	4.4	1201	
Scheduled Tribe	70.9	597	62.9	31.4	32.5	2.4	46.6	13.8	53.7	9.0	57.4	40.8	1.8	972	
Other backward Classes	73.7	1830	65.0	19.2	47.0	4.7	39.9	14.1	46.1	9.6	51.7	43.9	4.4	2430	
Others	79.5	1477	72.1	19.2	54.7	2.2	46.5	13.4	51.8	10.2	55.2	42.6	2.3	1861	
BPL Status															
Have BPL card	74.0	2107	65.8	24.7	42.9	3.7	41.1	16.2	48.8	10.6	54.3	41.9	3.8	2107	
Don't have BPL card	77.4	4357	69.1	18.4	52.0	4.7	44.0	13.4	49.6	9.1	53.2	43.4	3.4	4357	
Wealth Index															
Lowest	74.5	1057	59.7	17.4	43.4	8.7	29.7	10.2	35.9	10.8	41.7	55.9	2.4	1462	
Second	76.0	989	69.6	26.0	45.1	2.7	44.3	15.1	51.9	9.8	56.3	39.7	4.0	1365	
Middle	74.5	895	68.9	22.5	48.3	2.7	44.8	14.8	51.4	8.5	55.3	41.1	3.6	1247	
Fourth	77.4	927	75.1	18.8	58.7	0.4	57.3	19.7	63.7	9.1	66.8	28.3	4.9	1209	
Highest	82.0	964	78.9	21.7	58.4	0.9	60.1	19.7	64.9	8.6	66.6	28.3	5.1	1181	
Total	76.1	4832	67.8	20.9	48.4	4.3	42.8	14.5	49.3	9.7	53.6	42.8	3.6	6464	

* Data for children aged 12-23 months
unweighted cases

Table 7.4: Health seeking practices and treatment received by children less than 2 year of age who had diarrhoea according to States/UT

Background characteristics	Percentage of children who received advice/treatment	No. of children who received advice/treatment	Any health care facility/ provider				Percentage of children with diarrhoea taken to				Oral rehydration therapy			Increased fluid	Any ORT or increased fluid	Other treatment including home remedy	No treatment	Number of children < 2 year diarrhoea #
			Govt health facility/ provider	Pvt health facility/ provider	Other	ORS packet	Gruel	Either ORS or Gruel	ORS	Increased fluid	Increased fluid							
Andhra Pradesh	78.8	189	74.6	32.8	44.5	2.6	35.9	18.4	46.5	15.5	54.9	42.0	3.2	240				
Arunachal Pradesh	50.6	64	50.4	47.8	4.7	0.0	74.8	20.1	80.6	11.0	84.6	11.5	4.0	111				
Assam	71.9	97	65.3	47.5	20.6	0.7	53.0	7.9	58.1	11.2	60.0	34.2	5.8	132				
Bihar	74.0	296	63.8	3.9	60.2	2.0	22.4	13.6	34.3	10.0	40.4	58.0	1.6	384				
Chhattisgarh	87.8	112	73.9	31.7	42.9	3.9	61.5	24.3	65.6	12.0	68.3	31.6	0.1	135				
Delhi	78.4	244	77.0	30.8	49.1	0.3	70.2	18.7	72.6	15.4	75.2	23.7	1.1	310				
Goa	87.0	107	86.7	13.5	73.9	0.0	79.3	17.8	80.9	11.6	81.8	18.2	0.0	120				
Gujarat	75.2	292	65.6	22.5	46.4	0.6	56.9	5.9	59.2	12.7	63.0	33.0	4.1	380				
Haryana	78.3	206	77.5	26.4	53.1	0.0	74.3	21.8	78.7	2.6	79.8	20.1	0.2	266				
Himachal Pradesh	80.5	48	78.0	43.7	34.3	0.0	42.3	33.7	57.4	0.4	57.4	39.2	3.5	56				
Jammu & Kashmir	76.6	165	75.6	58.0	26.6	0.4	76.6	5.4	77.9	32.3	79.8	17.2	3.0	222				
Jharkhand	65.5	123	54.3	4.1	50.2	5.6	21.6	20.9	35.4	10.7	39.4	57.3	3.3	183				
Karnataka	76.7	284	74.9	38.3	38.4	0.0	68.8	16.8	71.9	5.0	74.0	25.1	0.9	373				
Kerala	89.6	73	87.5	41.3	46.3	2.1	56.4	32.1	66.1	32.7	74.2	25.8	0.0	82				
Madhya Pradesh	71.1	313	66.8	20.0	48.7	0.5	41.5	7.5	44.7	4.0	45.9	50.6	3.5	420				
Maharashtra	86.5	286	81.3	8.3	73.3	0.1	45.2	19.7	57.0	3.4	58.1	41.5	0.5	335				
Manipur	70.5	122	55.6	36.8	19.3	0.3	75.7	17.9	78.0	8.3	82.9	16.4	00.8	180				
Meghalaya	92.4	100	89.5	72.1	20.2	0.0	82.8	17.0	85.7	9.2	88.4	11.6	0.0	108				
Mizoram	52.4	101	51.4	44.8	7.2	0.6	56.7	4.6	57.7	12.2	60.8	35.8	3.4	204				
Nagaland	34.8	54	31.4	21.7	10.2	0.0	49.5	12.9	53.1	14.9	57.5	40.4	2.0	174				
Orissa	74.3	109	67.3	45.8	21.5	2.0	61.8	3.5	63.5	23.0	69.0	30.7	0.3	152				
Punjab	91.3	136	85.8	18.9	68.7	5.5	51.8	3.5	53.3	0.0	53.3	31.9	14.8	150				
Rajasthan	80.0	224	75.8	41.9	37.9	1.0	39.2	11.0	45.1	4.7	48.9	45.2	6.0	274				
Sikkim	64.7	51	64.7	52.8	12.4	0.0	44.7	2.8	44.7	26.0	63.5	24.5	12.0	70				
Tamil Nadu	45.8	160	43.6	22.7	21.3	1.7	57.9	40.8	64.7	5.8	66.3	8.8	24.8	335				
Tripura	86.3	153	84.7	69.2	21.0	0.0	72.2	3.1	75.0	29.4	76.4	22.7	0.8	176				
Uttar Pradesh	79.0	309	54.0	6.7	47.9	21.2	14.3	6.7	19.5	12.3	29.2	70.2	0.6	369				
Uttarakhand	87.7	74	75.4	15.1	62.6	13.0	13.4	2.9	13.8	4.7	17.6	61.6	20.8	86				
West Bengal	76.3	90	74.3	9.2	65.7	1.0	36.5	13.1	44.1	17.9	49.9	50.1	0.0	116				
UTs combined	75.7	250	69.0	29.6	44.7	0.5	60.1	4.8	61.2	12.3	65.4	23.8	10.9	321				
Total	76.1	4832	67.8	20.9	48.4	4.3	42.8	14.5	49.3	9.7	53.6	42.8	3.6	6464				

unweighted cases

Many times, due to misconception, mothers stop breastfeeding and reduce liquids to the child during diarrhoea. This is a wrong practice. Mothers were asked whether they gave less, same or more quantity of breast milk and liquids to the child during diarrhoea than normally given. The analysis of the data is presented in Table 7.5. The table shows that 30.2 percent of the children were given less breast milk than normal and 34.5 percent mothers gave less fluid to drink during diarrhoea. There were no significant variations in the proportion of mothers giving less breast milk or fluid with regard to gender of the child, place of residence, mother's education, and children belonging to households with different wealth quintiles.

Table 7.5: Percentage of children under 2 years who had diarrhoea in two weeks preceding the survey by amount of breastfeeding and fluids offered

Background characteristics	Breastfeeding			Number of <2-year-old children breastfeeding and who had diarrhoea (N)	Fluids to drink			Number of <2-year-old children who had diarrhea # (N)
	Less than usual	Usual	More than usual		Less than usual	Usual	More than usual	
Child's Age (in months)								
0-5	22.5	69.8	7.6	1126	29.0	54.8	9.3	1169
6-11	33.0	59.9	6.9	1666	38.2	52.9	8.0	1942
12-23	32.0	60.4	7.6	2390	34.5	54.6	11.0	3352
Gender *								
Male	32.1	59.9	8.0	1291 *	35.7	53.5	10.8	1828 *
Female	32.4	60.3	7.3	1018 *	32.9	55.9	11.2	1524 *
Residence								
Rural	30.2	61.7	8.1	2891	34.1	54.7	9.7	3538
Urban	30.0	64.1	5.6	2291	35.6	52.6	9.8	2926
Mother's Age (in years)								
15-19	34.0	59.8	6.1	240	32.6	58.7	7.6	278
20-24	29.5	62.8	7.6	2023	37.5	51.2	9.1	2423
25-34	30.7	62.0	7.3	2653	33.3	55.5	10.2	3384
35-44	25.6	66.2	8.3	255	25.8	57.3	13.2	341
45+	50.6	48.7	0.7	11	19.8	67.7	12.5	38
Mother's Education								
No education	31.6	60.6	7.7	1460	30.7	57.1	10.6	1740
<5 years complete	28.4	64.2	7.4	325	36.0	48.0	12.6	414
5-7 years complete	26.9	65.0	7.1	852	32.9	58.1	7.6	1036
8-9 years complete	31.5	60.4	8.0	858	37.8	52.4	8.3	1058
10-11 years complete	28.4	65.1	6.5	850	39.7	48.6	10.2	1111
12 or more years complete	31.5	63.0	5.5	837	37.9	50.2	9.7	1105
Religious Group								
Hinduism	29.4	62.7	7.8	3710	33.6	55.2	9.4	4600
Islam	34.8	58.7	6.3	818	33.9	52.0	13.1	992
Sikhism	39.5	59.2	1.4	90	44.6	52.1	3.2	116
Christianity	28.2	56.1	15.7	439	45.9	46.4	7.3	608
Others	14.3	85.7	0.0	125	53.9	44.0	0.7	148
Social Group								
Scheduled Caste	28.2	63.8	7.8	995	34.5	55.1	9.6	1201
Scheduled Tribe	29.5	63.6	6.8	764	29.3	61.2	9.2	972
Other backward Classes	30.3	61.9	7.8	1937	36.1	52.0	9.7	2430
Others	31.8	61.6	6.6	1486	33.4	54.7	10.2	1861
BPL status								
Have BPL card	31.9	59.4	8.6	1715	36.6	51.3	10.6	2107
Don't have BPL card	29.0	64.4	6.5	3467	33.2	55.9	9.2	4357
Wealth Index								
Lowest	28.1	64.5	7.4	1265	29.2	58.3	10.8	1462
Second	35.1	57.1	7.8	1092	35.3	52.8	9.8	1365
Middle	29.4	63.7	6.6	995	39.9	50.8	8.6	1247
Fourth	28.2	63.6	8.3	934	39.4	49.4	9.3	1209
Highest	29.9	63.3	6.4	896	34.9	54.7	8.6	1181
Total	30.2	62.4	7.4	5182	34.5	54.1	9.8	6464

* Data for children aged 12-23 months
unweighted cases

State differentials in feeding practices during diarrhoea compared with feeding practices before diarrhoea are shown in Tables 7.6a-c. Curtailing

breastfeeding during diarrhoea was widely prevalent in almost all States except in Delhi, Goa and Sikkim.

Table 7.6a: Percentage of children under 2 years who had diarrhoea in two weeks preceding the survey by amount of breastfeeding and fluids offered according to States/UTs-Total

States/UT	Breastfeeding			Number of children currently breastfeeding and who had diarrhoea (N)	Fluids to drink			Number of children who had diarrhea # (N)
	Less than usual	Usual	More than usual		Less than usual	Usual	More than usual	
Andhra Pradesh	38.8	42.3	18.9	224	46.0	38.5	15.5	240
Arunachal Pradesh	44.6	46.1	9.3	91	36.5	52.5	11.0	111
Assam	36.4	47.5	16.1	115	45.8	43.0	11.2	132
Bihar	26.2	63.0	10.8	343	29.8	56.4	10.0	384
Chhattisgarh	30.5	59.1	10.3	125	31.2	56.7	12.0	135
Delhi	10.5	77.4	12.1	223	13.9	70.7	15.4	310
Goa	17.1	62.0	20.8	92	20.2	68.1	11.6	120
Gujarat	44.0	44.7	11.3	297	45.1	42.2	12.7	380
Haryana	18.6	80.3	1.0	195	15.6	81.9	2.6	266
Himachal Pradesh	26.6	73.3	0.1	43	44.4	55.2	0.4	56
Jammu & Kashmir	42.5	42.1	15.5	175	26.6	41.1	32.3	222
Jharkhand	34.5	60.5	5.0	158	37.6	48.5	10.7	183
Karnataka	34.1	60.6	5.3	281	42.9	52.0	5.0	373
Kerala	18.2	71.8	9.9	79	17.2	49.2	32.7	82
Madhya Pradesh	26.4	71.2	2.4	372	30.6	65.2	4.2	420
Maharashtra	21.9	75.7	2.4	292	41.7	47.0	3.4	335
Manipur	35.1	56.7	8.3	161	38.0	53.7	8.3	180
Meghalaya	29.9	60.5	9.5	94	34.9	56.0	9.2	108
Mizoram	32.8	57.3	9.8	169	32.8	55.0	12.2	204
Nagaland	33.3	56.1	10.7	93	29.8	55.3	14.9	174
Orissa	38.2	46.0	15.8	135	23.0	54.1	23.0	152
Punjab	42.4	57.1	0.5	124	44.6	55.4	0.0	150
Rajasthan	21.2	65.6	13.1	241	20.6	74.6	4.7	274
Sikkim	15.0	77.9	7.1	58	18.3	55.7	26.0	70
Tamil Nadu	41.7	49.3	6.0	127	47.7	44.2	6.4	335
Tripura	26.7	68.4	4.9	145	25.1	45.5	29.4	176
Uttar Pradesh	20.9	77.9	1.2	323	22.5	63.9	12.3	369
Uttarakhand	42.7	53.2	4.0	71	49.9	45.3	4.7	86
West Bengal	57.5	33.8	8.7	110	46.0	36.1	17.9	116
UTs combined	30.2	62.0	7.4	226	32.4	54.9	12.3	321
Total	30.2	62.4	7.4	5182	34.5	54.1	9.8	6464

unweighted cases

Table 7.6b: Percentage of children under 2 years who had diarrhoea in two weeks preceding the survey by amount of breastfeeding & fluids offered according to States/UTs -Rural

States/UT	Breastfeeding			Number of children currently breastfeeding and who had diarrhoea (N)	Fluids to drink			Number of children who had diarrhea # (N)
	Less than usual	Usual	More than usual		Less than usual	Usual	More than usual	
Andhra Pradesh	26.3	23.5	14.3	134	32.0	22.3	10.2	144
Arunachal Pradesh	31.4	28.2	6.0	56	24.9	33.4	6.7	71
Assam	26.1	33.8	12.1	76	32.8	27.9	8.0	87
Bihar	16.4	35.0	6.4	217	18.5	31.3	5.4	239
Chhattisgarh	16.4	32.1	5.7	66	16.9	31.6	5.2	70
Delhi	2.5	12.5	2.7	34	2.6	8.6	3.7	41
Goa	7.4	28.8	13.2	43	6.2	34.1	8.8	54
Gujarat	26.8	21.5	8.2	174	28.0	23.7	7.5	235
Haryana	9.7	41.4	0.3	99	6.7	39.0	0.8	127
Himachal Pradesh	15.4	43.4	0.0	23@	23.1	29.7	0.0	27
Jammu & Kashmir	21.5	21.3	8.6	96	14.3	19.6	15.6	115
Jharkhand	20.9	37.0	3.1	95	22.8	29.5	5.2	106
Karnataka	12.6	37.5	3.2	163	20.6	29.7	2.3	209
Kerala	11.3	37.7	7.0	44	8.3	25.7	21.4	45
Madhya Pradesh	15.2	42.0	1.0	215	16.7	38.4	1.8	240
Maharashtra	14.5	49.1	1.7	175	28.3	30.4	3.5	203
Manipur	16.1	29.2	4.8	86	21.2	27.5	5.7	99
Meghalaya	16.3	35.9	4.6	58	20.0	33.1	4.7	67
Mizoram	23.1	35.0	5.8	108	20.9	33.0	9.1	128
Nagaland	19.1	21.0	5.9	56	18.0	23.4	7.8	108
Orissa	28.5	31.4	12.1	86	13.6	38.3	16.8	92
Punjab	19.7	35.5	0.0	66	22.6	31.0	0.0	81
Rajasthan	10.9	33.7	7.4	135	9.4	40.0	1.7	150
Sikkim	6.4	29.2	2.5	24@	8.5	23.6	11.9	31
Tamil Nadu	21.5	37.2	5.0	79	25.7	33.2	4.8	213
Tripura	16.9	45.1	1.8	93	13.1	27.7	18.2	104
Uttar Pradesh	13.0	49.8	1.0	195	14.3	40.4	7.6	222
Uttarakhand	19.3	22.8	1.1	29	21.7	16.1	.9	30
West Bengal	41.0	18.8	4.0	72	27.9	25.1	7.9	74
UTs combined	13.6	24.4	2.7	94	13.1	19.6	5.1	126
Total	30.2	61.7	8.1	2891	34.1	54.7	9.7	3538

@ Sample base fewer than 25
unweighted cases

Table 7.6c: Percentage of children under 2 years who had diarrhoea in two weeks preceding the survey by amount of breast feeding and fluids offered according to States/ UTs -Urban

States/UT	Breastfeeding			Number of children currently breastfeeding and who had diarrhoea (N)	Fluids to drink			Number of children who had diarrhea # (N)
	Less than usual	Usual	More than usual		Less than usual	Usual	More than usual	
Andhra Pradesh	11.4	21.4	3.0	90	12.3	18.0	5.2	96
Arunachal Pradesh	10.1	21.0	3.3	35	10.0	20.0	5.0	40
Assam	10.6	15.1	2.3	39	8.8	20.4	2.0	45
Bihar	4.0	34.2	4.1	126	5.3	30.2	6.0	145
Chhattisgarh	14.5	27.3	4.1	59	14.1	21.8	10.5	65
Delhi	8.2	64.5	9.5	189	11.4	61.5	12.2	269
Goa	9.8	33.3	7.4	49	14.3	34.0	2.7	66
Gujarat	16.8	23.9	2.8	123	16.9	18.7	5.3	145
Haryana	8.8	38.8	1.0	96	9.5	41.8	2.2	139
Himachal Pradesh	13.4	27.1	0.7	20@	23.9	21.1	2.2	29
Jammu & Kashmir	21.6	21.5	5.6	79	10.1	23.0	17.5	107
Jharkhand	13.8	23.6	1.7	63	13.8	18.0	7.1	77
Karnataka	23.7	21.1	1.9	118	23.0	21.5	2.8	164
Kerala	6.3	36.1	1.6	35	9.9	24.7	8.7	37
Madhya Pradesh	11.4	28.8	1.6	157	14.4	25.7	3.0	180
Maharashtra	7.4	26.6	0.7	117	13.5	16.5	0.0	132
Manipur	20.5	26.5	2.8	75	16.2	28.0	1.3	81
Meghalaya	14.9	21.9	6.5	36	15.0	21.5	5.7	41
Mizoram	10.3	21.9	3.9	61	11.9	21.6	3.4	76
Nagaland	3.8	48.2	2.1	37	2.4	42.4	5.9	66
Orissa	7.5	18.5	2.1	49	14.5	13.0	3.8	60
Punjab	25.1	18.8	0.7	58	23.0	23.4	0.0	69
Rajasthan	10.7	32.3	5.0	106	12.7	32.3	3.8	124
Sikkim	5.4	51.4	5.1	34	7.6	36.8	11.5	39
Tamil Nadu	19.3	14.4	2.7	48	21.1	11.9	1.8	122
Tripura	10.1	20.1	6.0	52	15.9	15.7	9.3	72
Uttar Pradesh	8.3	27.9	0.0	128	8.1	23.6	5.0	147
Uttarakhand	21.9	30.8	4.1	42	24.0	31.9	5.5	56
West Bengal	13.6	17.0	5.7	38	18.1	8.9	12.0	42
UTs combined	19.5	36.4	3.4	132	20.2	34.7	6.9	195
Total	30.0	64.1	5.6	2291	35.6	52.6	9.8	2926

@ Sample base fewer than 25
unweighted cases

7.3 MANAGEMENT OF ACUTE RESPIRATORY INFECTION

Acute Respiratory Infection (ARI), primarily pneumonia, is one of the leading causes of the childhood morbidity and mortality. Early diagnosis and treatment can prevent a large proportion of ARI-related deaths. Mothers of children below 2 years were asked whether their child had cough with fast breathing and fever during 2 weeks preceding the survey. The analysis of the data shows that 18.8 percent of the children below 2 years reportedly suffered from ARI symptoms (Table 7.7).

ARI symptoms were more common among boys (18.7 percent) than girls (16 percent); among 6-11 month-old children (21.4 percent) than

12-23 month-old children (17.7 percent); and among children from households with lowest wealth quintile (20.7 percent) than households with highest wealth quintile (16.5 percent). Prevalence of ARI symptoms was high among Muslim children.

Table 7.7 presents the healthcare seeking data for children suffering from ARI in the previous 2 weeks. Around 83 percent of the children who had ARI symptoms were taken to a health facility or health provider for treatment. More children were taken to a private health facility/provider (63.4 percent) than government health facility/provider (21.1 percent). As expected, more urban children, and children belonging to households with higher wealth quintile were taken to a health facility than their counterparts from rural areas and from households with lower wealth quintiles.

Table 7.7: Percentage of children under 2 years who had ARI during 2 weeks preceding the survey and sought treatment from health facility or provider by selected background characteristics

Background characteristics	Percentage of children with symptoms of ARI	Number of surviving children under 2 years # (n)	Percentage treated by			Number of children who suffered from ARI #
			Govt. health facility/provider	Pvt. health facility/provider	Any health facility	
Age in Months						
<6	18.3	9985	22.1	59.5	79.5	1443
6-11	21.4	12527	19.9	64.7	83.6	2276
12-23	17.7	22598	21.3	64.3	83.5	3587
Gender *						
Male	18.7	12212 *	21.8	62.1	81.8	2051 *
Female	16.0	10386 *	21.1	65.6	84.3	1536 *
Residence						
Rural	18.9	25236	21.9	59.6	79.6	4037
Urban	18.5	19904	19.0	73.3	90.5	3269
Mother's Education						
No education	19.7	11140	17.9	57.5	74.1	1951
<5 years complete	19.5	2434	23.7	66.3	86.8	416
5-7 years complete	18.8	7107	23.3	60.8	82.3	1193
8-9 years complete	18.7	7606	22.4	64.9	85.5	1261
10-11 years complete	18.5	7800	25.2	68.4	91.2	1234
12 or more years complete	16.5	9053	20.3	77.5	93.8	1251

Table 7.7: Contd...

Background characteristics	Percentage of children with symptoms of ARI	Number of surviving children under 2 years # (n)	Percentage treated by			Number of children who suffered from ARI #
			Govt. health facility/provider	Pvt. health facility/provider	Any health facility	
Religious Group						
Hinduism	18.2	32640	22.2	61.9	82.2	5586
Islam	23.8	5851	15.2	69.6	83.0	1155
Sikhism	13.6	803	15.0	78.2	92.6	116
Christianity	11.8	4948	38.1	51.5	87.6	338
Others	18.9	848	23.7	63.8	86.3	111
Social Group						
Scheduled Caste	18.2	8050	23.1	59.5	80.1	1445
Scheduled Tribe	15.3	7738	24.3	52.9	75.4	731
Other backward Classes	19.3	15798	20.9	62.5	81.9	2860
Others	19.5	13554	19.2	69.8	87.0	2270
BPL status						
Have BPL card	17.9	14135	23.7	60.6	82.6	2313
Don't have BPL card	19.3	31005	19.6	64.9	82.6	4993
Wealth Index						
Lowest	20.7	9012	18.1	54.2	71.1	1813
Second	19.8	9035	25.1	60.3	83.2	1474
Middle	17.5	9050	22.7	69.4	90.0	1370
Fourth	16.6	9015	24.6	70.8	92.0	1359
Highest	16.5	9028	16.3	80.4	95.5	1290
Type of fuel for cooking						
Electricity, LPG, PNG, Biogas	16.2	19220	19.7	76.5	93.7	2701
Kerosene, coal, lignite, charcoal	21.1	2719	19.0	69.6	87.4	497
Wood	18.9	19237	26.7	54.7	79.4	3243
Straw, shrub, agriculture crop waste, Dung Cakes	21.8	3964	11.1	64.9	75.1	865
Total	18.8	45140	21.1	63.4	82.6	7306

* Data for children aged 12-23 months
unweighted cases

The percentage of children with ARI symptoms varied considerably across States (Table 7.8). The percentage of children under 2 years of age who suffered from ARI during 2 weeks preceding the survey ranged from 4 percent in Nagaland to 25.9 percent in Tripura. More than 90 percent of the children suffering from ARI in Delhi, Goa,

Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Meghalaya, Punjab, Sikkim and Tripura were taken to a health facility or health provider for treatment. On the other hand, in Arunachal Pradesh and Nagaland less than 70 percent children were taken to any health facility/provider for treatment.

Table 7.8: Percentage of children under 2 years who had ARI during 2 weeks preceding the survey and sought treatment from health facility or provider by States/UTs

States/UT	Percentage of children with symptoms of ARI	Number of surviving children under 2 years # (n)	Percentage treated by			Number of children who suffered from ARI #
			Govt. health facility/provider	Pvt. health facility/provider	Any health facility	
Andhra Pradesh	18.8	1780	22.6	69.0	88.2	308
Arunachal Pradesh	6.7	1141	51.9	15.8	64.5	68
Assam	14.6	1738	50.3	32.7	79.2	279
Bihar	22.8	2114	6.4	76.7	82.9	505
Chhattisgarh	18.5	1047	30.2	56.2	85.0	183
Delhi	19.5	1164	28.1	66.6	90.7	230
Goa	12.8	1075	12.7	85.7	97.0	119
Gujarat	23.9	1560	24.9	64.9	84.4	373
Haryana	13.9	1259	30.8	64.8	92.2	168
Himachal Pradesh	9.6	1102	32.3	60.5	92.6	104
Jammu & Kashmir	20.7	1231	55.3	37.7	83.7	239
Jharkhand	21.5	1268	7.9	64.1	70.9	275
Karnataka	11.8	1518	42.6	48.5	90.7	177
Kerala	12.6	1572	48.8	46.9	94.2	185
Madhya Pradesh	14.1	2062	14.9	61.2	75.8	319
Maharashtra	20.5	2017	15.4	79.6	93.1	384
Manipur	10.1	1258	39.4	42.6	77.8	120
Meghalaya	5.0	1159	58.9	45.1	94.3	56
Mizoram	5.1	1231	44.4	45.9	87.6	59
Nagaland	4.0	1268	24.4	28.8	50.6	50
Orissa	20.5	1809	42.6	37.2	79.4	330
Punjab	16.8	1132	16.5	79.7	94.7	200
Rajasthan	11.1	1796	49.6	44.5	89.9	234
Sikkim	5.1	1061	68.7	24.2	91.2	90
Tamil Nadu	14.8	2131	46.8	45.3	88.8	352
Tripura	25.9	1187	70.3	40.3	95.5	325
Uttar Pradesh	23.1	2236	7.5	64.7	72.3	541
Uttarakhand	18.9	1150	9.5	74.8	83.2	191
West Bengal	22.2	1652	12.9	67.0	77.8	358
UTs combined	21.4	2422	46.4	54.5	95.8	484
Total	18.8	45140	21.1	63.4	82.6	7306

unweighted cases

7.4 USE OF BED-NETS AMONG CHILDREN

Table 7.9 shows that only 28.5 percent of households with children aged 12-23 months had

a bed-net. The proportion of such households was slightly higher in rural areas (29.5 percent) as compared to those in urban areas (25.9 percent). Twenty two percent of mothers/care givers reported that the index child slept under it all seven days and 77.4 percent children never slept under the bed-net.

Table 7.9: Percentage of children aged 12-23 months using bed-net by residence

Responses	Rural	Urban	Total
Percentage of households which had bed-nets	29.5	25.9	28.5
Frequency of using bed-net by child (number of days per week)			
Never slept under bed-net	73.4	76.9	74.4
1-3 days	1.5	2.1	1.7
4-6 days	1.8	0.9	1.5
All 7 days	23.3	20	22.4
Number of children #	12635	9969	22604

unweighted cases

Table 7.10: Percentage of children age 12-23 months using bed-nets by States/UT

States/UTs	Percentage of households having bed-nets	Frequency of using bed-net (in days)				Number of children aged 12-23 months #
		1-3	4-6	All 7 days	Never slept under bed-net	
Malaria Endemic States						
Andhra Pradesh	10.8	1.3	0.8	8.4	89.6	887
Arunachal Pradesh	93.7	1.4	3.7	87.1	7.8	585
Assam	95.4	1.4	2.3	91.7	4.6	875
Gujarat	13.6	3.1	1.5	7.6	87.7	786
Karnataka	26.1	2.7	4.9	17.8	74.6	751
Madhya Pradesh	15.9	2.1	0.6	9.9	87.5	1040
Maharashtra	15.1	0.6	0.7	10.2	88.5	1020
Manipur	96.9	0.4	0.1	96.4	3.1	630
Meghalaya	65.3	7.9	16.8	40.3	35.0	586
Mizoram	97.0	1.2	1.7	93.8	3.4.0	624
Nagaland	45.9	0.7	0.9	43.2	55.3	641
Orissa	51.3	2.1	0.4	44.1	53.4	889
Rajasthan	3.8	0.5	0.5	2.4	96.6	894
Tripura	99.5	0.8	-	98.5	0.7	603

Table 7.10: Contd...

States/UTs	Percentage of households having bed-nets	Frequency of using bed-net (in days)				Number of children aged 12-23 months #
		1-3	4-6	All 7 days	Never slept under bed-net	
Uttar Pradesh	14.8	0.4	2.0	8.3	89.3	1112
West Bengal	87.3	0.6	0.2	85.7	13.6	827
Non-malaria Endemic States						
Bihar	50.3	1.3	2.0	40.6	56.1	1055
Chhattisgarh	29.3	3.7	0.7	22.7	72.9	522
Delhi	16.1	3.8	1.2	3.5	91.5	585
Goa	8.9	0.8	0.7	7.4	91.1	534
Haryana	9.4	3.5	2.5	2.7	91.3	634
Himachal Pradesh	1.3	0.9	-	-	99.1	547
Jammu & Kashmir	10.5	2.3	1.6	-	96.1	620
Jharkhand	57.3	2.8	0.2	34.8	62.3	635
Kerala	44.1	6.5	8	29.6	55.9	760
Punjab	4.7	3.6	0.1	0.5	95.8	570
Sikkim	9.0	1.5	0.7	3.2	94.5	535
Tamil Nadu	5.6	2.1	0.3	3.0	94.6	1068
Uttarakhand	15.4	1.7	1.3	9.0	88.0	576
UTs combined	20.1	3.5	1.0	14.4	81.1	1213
Total	28.5	1.7	1.5	22.4	74.4	22604

unweighted cases



Chapter 8

Conclusions and Way Forward

The CES 2009 captures and provides coverage levels of some key maternal and child health interventions at state level. However, inter-district variations within the States are not ascertained in this survey. When compared with DLHS-3 survey (conducted in 2005/2006), the CES results represent the impact of RCH-II/ NRHM on coverage of key maternal, newborn and child health indicators.

The most notable achievements were made in maternal care. More pregnant women received antenatal care - at least 1 ANC visits increased by about 15 percent; 3+ ANC rose by 19 percent and full ANC showed a rise by about 8 percent when compared to DLHS3. Of concern however, is the low level of IFA consumption during pregnancy. The conditional cash transfer worked to its fullest under JSY and pushed institutional deliveries from 47 percent (DLHS3) to 73 percent seen in the present survey. However, the institutional deliveries, in spite of some progress, remained less than 50 percent in states such as Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Nagaland and Uttarakhand. In parallel, skilled birth attendance reached a coverage level of 76 percent from 53 percent seen previously. ASHAs were able to make their presence felt by facilitating 21 percent of all institutional deliveries.

Immunization coverage improved marginally (measles and full immunization coverage increased by 5 percent and 7.5 percent respectively). Some States continue to have high immunization drop-out rates resulting in low levels of full immunization. The DPT and OPV booster immunization also remained static at the same low levels as seen in previous CES 2006.

Though proportion of newborns checked up within 24 hours of birth has risen by about 20 percent since DLHS3, probably due to phenomenal rise in institutional deliveries, breast feeding within 1 hour of birth dropped by 7 percent, reflecting a significant missed opportunity. About 20 percent more children suffering from diarrhea received lifesaving ORT or increased fluids as compared to DLHS3 data. Harmful practices such as decreasing fluids or reducing breast feeding during childhood diarrhea remains prevalent at significant levels and should be addressed urgently by planners.

While CES shows increased coverage of most interventions as compared to DLHS-3, the finding should be viewed with a note of caution. The DLHS-3 was undertaken in 2005-6 and covered a period of previous 3 years. On the other hand, CES 2009 gives coverage estimates for 1 year previous to survey.

The quality of care, social inequity and inter-state disparity remain areas of concern. For example, in CES 2009, the full ANC coverage is high Kerala (78 percent) while in otherwise better performing states it remains low – to name a few - Andhra Pradesh (46 percent), Tamil Nadu (44 percent) and Goa (53 percent). Within Bihar, higher proportions of children from highest wealth quintile (81 percent) have received full immunization as compared to those in lowest wealth quintile (45 percent). Severe shortage of human resources, slow improvement of health infrastructure, and limited capacity of

programming, planning and implementation at the district level thereby hampering utilization of allocated funds are some of the challenges that NRHM needs to overcome to bring about substantial reductions in maternal and child mortality.

CES 2009 can stimulate identification of operational research into key issues in delivery of MCH interventions such as why breast feeding rates remain low on the face of high institutional births and posting of ASHAs and AWW in all villages.

There is also need for triangulation of the findings of the CES 2009 with data available in the Health management Information System (HMIS) and other small scale state level surveys and studies.

The finding of this survey should lead to enhanced discussion between MOHFW, Planning Commission, States Governments and other partners to understand the bottlenecks in delivery of MCH interventions and improve quality for effectiveness.

Periodic critical information on key MCH indicators is boon to planners and programmers. MOHFW has commissioned Annual Health Survey in 284 districts of 9 States, with reports likely in 2011. Further, DLHS4 and NFHS4 are also on the drawing board. While awaiting findings of these large surveys, the results of the CES 2009 should be useful for preparation of State and District plans.



Appendices and Questionnaires

APPENDIX 1

List of Variables for the development of Wealth Index

Assets	Coding categories
Type of house	Pucca House=1 Otherwise=0
Source of drinking water	Piped water, Hand Pump=1 Otherwise=0
What type of fuel	Electricity or LPG=1 Otherwise=0
Ownership of house	Yes=1 No=0
Toilet facility	Flush/Pour flush, Pit latrine, Twin pit=1 Otherwise=0
Does this household own any irrigated agricultural land?	Yes=1; No=0
Does this household own any livestock?	Yes=1; No=0
Main Source of Lighting	Electricity=1 Otherwise=0
Does your HH have - Electricity?	Yes=1; No=0
Does your HH have - A mattress?	Yes=1; No=0
Does your HH have - A pressure cooker?	Yes=1; No=0
Does your HH have - A chair?	Yes=1; No=0
Does your HH have - A cot or bed?	Yes=1; No=0
Does your HH have - A table?	Yes=1; No=0
Does your HH have - An electric fan?	Yes=1; No=0
Does your HH have - A radio or transistor?	Yes=1; No=0
Does your HH have - A black and white television?	Yes=1; No=0
Does your HH have - A colour television?	Yes=1; No=0
Does your HH have - A sewing machine?	Yes=1; No=0
Does your HH have - A mobile telephone?	Yes=1; No=0
Does your HH have - Any other type of telephone?	Yes=1; No=0
Does your HH have - A computer?	Yes=1; No=0
Does your HH have - A refrigerator?	Yes=1; No=0
Does your HH have - A watch or clock?	Yes=1; No=0
Does your HH have - A bicycle?	Yes=1; No=0
Does your HH have - A motor cycle or scooter?	Yes=1; No=0
Does your HH have - An animal-drawn cart?	Yes=1; No=0
Does your HH have - A car?	Yes=1; No=0
Does your HH have - A water pump?	Yes=1; No=0
Does your HH have - A thresher?	Yes=1; No=0
Does your HH have - A tractor?	Yes=1; No=0

APPENDIX 2

QUESTIONNAIRE Child Immunization Coverage

Schedule Number

IDENTIFICATION	
State.....	<input type="text"/> <input type="text"/>
District.....	<input type="text"/> <input type="text"/>
CD block/tehsil/taluk	
Rural/Urban (Rural – 1, urban – 2)	<input type="checkbox"/>
PSU Number	<input type="text"/> <input type="text"/> <input type="text"/>
Name of Village/Ward	
Name of Household Head.....	<input type="text"/> <input type="text"/>
Address.....	
Name of the respondent for the first section	
Number of mothers with child 12-23 months in the household	<input type="checkbox"/>
Interview Date Month Year Date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Number of visits made	<input type="checkbox"/>
Result status of questionnaire	Completed 1 No eligible respondent at home..... 2 Entire HH absent for extended period 3 Refused..... 4 Other (specify)..... 6
_____ <input type="text"/> <input type="text"/>	_____
Name and code of the investigator	Signature of the investigator
Spot/back checked by	
Name	Date

Introduce yourself in the following way:

Namaste! My name is ----- and I am working for ORG Centre for Social Research. We are conducting a national survey for Government of India/UNICEF on immunization services for children and maternal care of women. We would greatly appreciate the participation of your household in this survey. I would like to ask you some questions about your household and some about the immunization of the children in the age group 12-23 months. The information will help the government to assess health and information needs and to plan better health services. Information you provide will be kept strictly confidential and used only for research.

This questionnaire is for immunization of children. We learn that there is a child in the age group 12-23 months in this household. If this information suggests that there is no child of that age group, then politely discontinue.

SECTION 1: HOUSEHOLD PROFILE

This section to be administrated to the head of the household/any other adult respondent.

Q. No.	Question	Responses	Code	Skip to												
101.	How many members usually live in this household including yourself?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">Males</th> <th style="width: 20%; text-align: center;">Females</th> </tr> </thead> <tbody> <tr> <td>Members >= 5 years</td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>Members <5 years</td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> </tr> <tr> <td>Total</td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> <td style="text-align: center;"><input type="text"/> <input type="text"/></td> </tr> </tbody> </table>		Males	Females	Members >= 5 years	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	Members <5 years	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	Total	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		
	Males	Females														
Members >= 5 years	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>														
Members <5 years	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>														
Total	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>														
102.	What is the religion of the head of household?	Hindu 1 Muslim..... 2 Sikh..... 3 Christian 4 Jain 5 Other (specify) _____ 6														
103.	What is the caste of the head of household?	Scheduled caste..... 1 Scheduled tribe..... 2 Other backward class 3 Other castes _____ 4														
Now I will like to ask you some questions about your household																
104.	What kind of toilet facility does your household use?	Flush or pour flush toilet Own flush toilet 1 Shared flush toilet..... 2 Public flush toilet..... 3 Pit latrine/latrine Own pit toilet/latrine 4 Shared pit toilet/latrine 5 Public pit toilet/latrine 6 No facility/bush/field..... 7 Other (specify) _____ 96														

Q. No.	Question	Responses	Code	Skip to
105.	What is the main source of lighting for your household?	Electricity 1 Solar energy.....2 Kerosene.....3 Biogas.....4 Gas.....5 Oil.....6 Other (specify) _____ 7		
106.	What type of fuel does your household mainly use for cooking?	Electricity 1 Lpg/natural gas 2 Biogas.....3 Kerosene.....4 Coal/lignite 5 Charcoal.....6 Wood 7 Straw/shrubs/grass.....8 Agricultural crop waste.....9 Dung cakes.....10 Other (specify)_____ 96		
107.	What is the main source of drinking water for members of your household?	Piped water Piped into residence/yard/plot 1 Public tap2 Ground water Hand pump into residence/yard/plot... 3 Public hand pump4 Well water Well into residence/yard/plot Protected well5 Unprotected well6 Public well Protected well7 Unprotected well8 Spring water Protected spring9 Unprotected spring10 Rain water11 Tanker/truck12 Surface water13 Other (specify) _____ 96		
108.	Does your household own this house or any other house?	Yes 1 No..... 2		
109.	How many rooms in this household are used for sleeping?	Rooms..... <input type="text"/> <input type="text"/>		
110.	Does your household own any agricultural land?	Yes 1 No..... 2		→ 113
111.	How much agriculture land does this household own? _____ (If not in acres, specify size and unit	Acres... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		

Q. No.	Question	Responses	Code	Skip to																																																																					
112.	Out of this land, how much land is irrigated? (If not in acres, specify size and unit)	Acres... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> None..... 9995																																																																							
113.	Does your household own any livestock?	Yes 1 No..... 2																																																																							
114.	Do you have the following items in your house? Mattress? Pressure cooker? Chair? Cot or bed? Table? Electric fan? Radio or transistor? Black and white television? Colour television? Sewing machine? Mobile telephone? Other type of telephone? Computer? Refrigerator? Watch or clock? Bicycle? Motor cycle or scooter? Animal-drawn cart? Car? Water pump? Thresher? Tractor?	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr><td>Mattress</td><td>1</td><td>2</td></tr> <tr><td>Pressure cooker</td><td>1</td><td>2</td></tr> <tr><td>Chair</td><td>1</td><td>2</td></tr> <tr><td>Cot or bed</td><td>1</td><td>2</td></tr> <tr><td>Table</td><td>1</td><td>2</td></tr> <tr><td>Electric fan</td><td>1</td><td>2</td></tr> <tr><td>Radio or transistor</td><td>1</td><td>2</td></tr> <tr><td>Black and white television</td><td>1</td><td>2</td></tr> <tr><td>Colour television</td><td>1</td><td>2</td></tr> <tr><td>Sewing machine</td><td>1</td><td>2</td></tr> <tr><td>Mobile telephone</td><td>1</td><td>2</td></tr> <tr><td>Other type of telephone</td><td>1</td><td>2</td></tr> <tr><td>Computer</td><td>1</td><td>2</td></tr> <tr><td>Refrigerator</td><td>1</td><td>2</td></tr> <tr><td>Watch or clock</td><td>1</td><td>2</td></tr> <tr><td>Bicycle</td><td>1</td><td>2</td></tr> <tr><td>Motor cycle or scooter</td><td>1</td><td>2</td></tr> <tr><td>Animal-drawn cart</td><td>1</td><td>2</td></tr> <tr><td>Car</td><td>1</td><td>2</td></tr> <tr><td>Water pump</td><td>1</td><td>2</td></tr> <tr><td>Thresher</td><td>1</td><td>2</td></tr> <tr><td>Tractor</td><td>1</td><td>2</td></tr> </tbody> </table>		Yes	No	Mattress	1	2	Pressure cooker	1	2	Chair	1	2	Cot or bed	1	2	Table	1	2	Electric fan	1	2	Radio or transistor	1	2	Black and white television	1	2	Colour television	1	2	Sewing machine	1	2	Mobile telephone	1	2	Other type of telephone	1	2	Computer	1	2	Refrigerator	1	2	Watch or clock	1	2	Bicycle	1	2	Motor cycle or scooter	1	2	Animal-drawn cart	1	2	Car	1	2	Water pump	1	2	Thresher	1	2	Tractor	1	2		
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115.	Does any usual member of this household have a bank account or a post office account?	Yes 1 No..... 2 Don't know 8																																																																							
116.	Does this household have a BPL card?	Yes 1 No..... 2 Don't know 8																																																																							
117.	Type of house Record observations Roof..... Wall..... Floor.....	Kachha 1 Semi-pucca..... 2 Pucca..... 3																																																																							
118.	Type of windows Record observations	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr><td>Any windows</td><td>1</td><td>2</td></tr> <tr><td>Windows with glass</td><td>1</td><td>2</td></tr> <tr><td>Windows with screen</td><td>1</td><td>2</td></tr> <tr><td>Windows with curtains or shutters..</td><td>1</td><td>2</td></tr> </tbody> </table>		Yes	No	Any windows	1	2	Windows with glass	1	2	Windows with screen	1	2	Windows with curtains or shutters..	1	2																																																								
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Windows with curtains or shutters..	1	2																																																																							
119.	Ask respondent for a teaspoonful of cooking salt. Test salt for iodine Record ppm (parts per million)	0 Ppm (no iodine) 1 Less than 15 ppm..... 2 More than 15 ppm 3 No salt in household 4																																																																							

SECTION 2A: CHILD'S PROFILE

Q. No.	Question	Responses	Code	Skip to
201.	What is the name of your child in age group 12-23 months? <input type="checkbox"/>		
202.	What is the gender of the child?	Boy 1 Girl 2		
203.	What is his/her date of birth?	Date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> DD MM YYYY		
204.	What is the age of [name of child]? (In completed months)	Age (in completed months)..... <input type="text"/> <input type="text"/>		
205.	Whether the child has celebrated his/her second birthday?	Yes 1 No..... 2		→ End
206.	What is the birth order of the (name)?	Birth order <input type="checkbox"/>		
207.	Does this household have a bed-net that can be used for sleeping?	Yes 1 No..... 2		→ 210a
208.	How many days during the last one week the child slept under the bed-net?	Number of days <input type="text"/>		
209.	Was the bed-net treated with a chemical (insecticide) to kill mosquitoes/bugs in the last 6 months?	Yes 1 No..... 2 Don't know 8		

SECTION 2B: RESPONDENT'S PROFILE

Ask the remaining questions to the mother/care taker of the child

Q. No.	Question	Responses	Code	Skip to
210a.	Name of the respondent		
210b.	Type of respondent	Mother 1 Care taker 2		
211.	What is your age? (In completed years)	Years <input type="text"/> <input type="text"/>		
212.	Can you read and write any language with understanding?	Yes 1 No..... 2		
213.	Have you ever been to school?	Yes 1 No..... 2		→ 215
214.	How many years of schooling you have completed?	Years of schooling completed..... <input type="text"/> <input type="text"/>		
215.	Can your husband read and write in any language with understanding?	Yes 1 No..... 2		→ 301
216.	Has your husband ever been to school?	Yes 1 No..... 2		
217.	How many years of schooling your husband has completed?	Years of schooling completed <input type="text"/> <input type="text"/> Don't know..... 98		

SECTION 3: KNOWLEDGE AND AWARENESS OF IMMUNISATION

Q. No.	Question	Responses	Code	Skip to		
301.	Do you know what vaccines an infant should get before he/she attains age of one year? (A child should get BCG, DPT, OPV, and Measles during his/her first year).	Yes 1 No..... 2				
302.	List the immunizations, number of doses and age (in months) at which child should get the first dose Note: Let the mother spontaneously name the vaccinations required. Circle '1' for all vaccines mentioned spontaneously. If she is not able to recall all the vaccines then read the vaccines not mentioned and circle '2' if she responds positively. Circle '8' for all those vaccines not known to the respondent.					
	Vaccinations	Voluntary reporting	After	Don't	If does not know ask for next vaccine	
					No. of doses required. Record 8 if not known	Age at which First dose required (Months). Record 98 if not known
	BCG – A vaccination against tuberculosis, that is, an injection that usually causes a scar	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>
	DPT – A vaccination against Diphtheria, Whooping Cough and Tetanus given to the child as an injection A	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>
	OPV – Polio vaccine that is, drops in the mouth	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>
	Hepatitis B – An injection given along with DPT and OPV	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>
	Measles – an injection against measles given at right arm/shoulder	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>
	Vitamin A – a dose given with spoon generally along with measles	1	2	8		<input type="text"/> <input type="text"/> . <input type="text"/>

SECTION 4: COVERAGE BY ROUTINE IMMUNISATION

Q. No.	Question	Responses	Code	Skip to
401.	Is there an immunization card/any document for recording immunization for [NAME]? If yes, may I see it, please?	Card seen, completely filled 1 Card seen, partially filled 2 Card seen with no entry 3 Yes, card not seen 4 No card available..... 5 Don't know 8	1 2 3 4 5 8	→ 403 → 403 } 404
402.	Why card is blank/partially filled?	Forgot to take the card during immunization 1 Had misplaced the card..... 2 Anm/doctor never recorded..... 3 Other (specify)..... 6	1 2 3 6	
403.	Who issued you this card?	Government facilities/personnel 1 Non-government facilities/personnel (private) 2	1 2	} 407
404.	Was there any immunisation card made for (Name's) immunisation?	Yes, it got lost, did not ask for other 1 Yes, it got destroyed, did not ask for other..... 2 No..... 3	1 2 3	} 409
405.	Do you know that a card has to be issued to maintain record of your child immunization?	Yes 1 No..... 2	1 2	→ 409
406.	Why did you not get the card made?	No body approached me 1 It was not available at the health center 2 I did not see the advantage..... 3 Other (specify) 6	1 2 3 6	} 409

CHECK Q401: IF CODED '4' SKIP TO Q408

407.	Immunization status of the child: Copy dates from the card. If only part of the date is shown on the card, record 98 or 9998 for don't know column for which information is not given If card shows vaccination given but no date recorded, write '44' in day column	BCG	Day	Month	Year
		POLIO 0	<input type="text"/>	<input type="text"/>	<input type="text"/>
		HEP B (Birth)	<input type="text"/>	<input type="text"/>	<input type="text"/>
		POLIO 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
		POLIO 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
		POLIO 3	<input type="text"/>	<input type="text"/>	<input type="text"/>
		DPT 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
		DPT 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
		DPT 3	<input type="text"/>	<input type="text"/>	<input type="text"/>
		HEP B 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
		HEP B 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
		HEP B 3	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Measles	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Vitamin A 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Dpt booster	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Opv booster	<input type="text"/>	<input type="text"/>	<input type="text"/>
MMR	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Vitamin A 2	<input type="text"/>	<input type="text"/>	<input type="text"/>		

Q. No.	Question	Responses	Code	Skip to
408.	Has (name) received any vaccinations that are not recorded on this card? Record 'yes' only if respondent mentions bcg, dpt 1-3, polio, 0-3 and/or measles vaccine (s).	Yes 1 No.....2 Don't know 8		} 423
409.	Has (name) received any vaccinations to prevent him/her from certain diseases?	Yes 1 No.....2 Don't know 8		} 437
Now please tell me if (Name) has received any of the following vaccinations.				
410.	A BCG vaccination against tuberculosis, that is, an injection that usually causes a scar?	Yes 1 No.....2 Don't know 8		
411.	Any polio vaccine, that is, drops in the mouth? [Don't include drops given during pulse polio campaign]	Yes 1 No.....2 Don't know 8		} 414
412.	Was the first Polio Vaccine received in the first two weeks after birth?	Yes 1 No.....2		
413.	How many times Polio Vaccine received? (Excluding polio '0' and pulse polio) (Record no. of times) Probe for drops usually given along with DPT. Exclude pulse polio immunisation	Number..... <input type="checkbox"/> Don't know 8		
414.	A DPT vaccination against Diphtheria, Whooping Cough and Tetanus given to the child as an injection?	Yes 1 No.....2 Don't know 8		} 416
415.	How many DPT injections were given in thigh or buttocks, sometimes at the same time as polio drops? (Record no. of times)	Number..... <input type="checkbox"/> Don't know 8		
416.	Was an injection against MEASLES given at right arm/shoulder?	Yes 1 No.....2 Don't know 8		
417.	Has (NAME) ever received a VITAMIN A dose? Instruction: A dose given from a bottle with spoon	Yes 1 No.....2 Don't know 8		} 420
418.	How many times was the VITAMIN A dose received?	Number..... <input type="checkbox"/> Don't know 8		

Q. No.	Question	Responses	Code	Skip to
419.	Was your child given vitamin A supplement during the last 6 months?	Yes 1 No.....2 Don't know 8		
420.	Was HEPATITIS-B Injection given to the child?	Yes 1 No.....2 Don't know 8		} 423
421.	How many times did he/she receive Hepatitis B vaccine?	Number..... <input type="checkbox"/> Don't know 8		
422.	Was the first HEPATITIS B vaccine received in the first two weeks after birth?	Yes 1 No.....2 Don't know 8		
423.	Did (NAME) ever receive any vaccinations to prevent him/her from getting disease, including vaccinations received in a Pulse Polio campaign?	Yes 1 No.....2 Don't know 8		} 425
424.	How many times (NAME) got drops during Pulse Polio Campaign in last one year?	Number..... <input type="checkbox"/> Don't know 8		
Check question 204 and ask Qs.425 & 426 Only if [name] has completed 18 months of age				
425.	Has [Name] received any booster dose for DPT (given after DPT 3)?	Yes 1 No.....2 Don't know 8		
426.	Has [name] received any booster dose for opv (given after opv 3)? (Don't include opv given during pulse polio campaign)	Yes 1 No.....2 Don't know 8		
426A.	Has [name] received any dose for mmr (measles mumps rubella)?	Yes 1 No.....2 Don't know 8		
Check 407, 410, 414, 416 & 420: If child was given bcg, dpt, hepatitis b or measles at least once, then continue, if not skip to 437				
427.	Was the syringe opened from a packet in front of you?	Yes 1 No.....2		
428.	Whether the syringe was bought by you or it was provided by the health facility?	Bought by the respondent 1 Provided by the facility 2 Don't know 8		
429.	Was your child given all vaccination using disposable syringe (syringe opened from a packet)?	Yes 1 No.....2		

Q. No.	Question	Responses	Code	Skip to															
430.	From where did (NAME) receive most of his/her vaccinations?	Government/municipal hospital..... 1 PHC/CHC.....2 Sub centre3 Private hosp./Clinic.....4 Other private facility5 Anganwadi centre.....6 Some other place in the village.....7 Other (Specify).....96																	
431.	How far the place is from your house?	KMS <input type="text"/> <input type="text"/>																	
432.	How long it takes to travel to the place?	Minutes <input type="text"/> <input type="text"/> <input type="text"/>																	
433.	Which are the sources of your information about immunization? Any other? Record all mentioned	ANM/LHV/health worker (Male)..... A Aww.....B Govt. DoctorC Pvt. Doctor..... D Social worker, ngo workerE Radio/Tv..... F Billboards, posters at health centers, Booklets, newspaper etc. G Husband or family members H Asha I Traditional birth attendantJ Friends/neighbours.....K Other (specify) X																	
434.	How many times you/any other family member visited for your child's last vaccination?	Once..... 1 More than once..... 2		→ 436															
435.	What are the reasons?	Service provider absent A Vaccine not available.....B Long waiting time.....C Other (specify)..... X																	
436.	During any of your visit did you receive message/advice on following at least once (Read out) A. What injections were given on that day B. Were the side effects of the vaccination and their management explained C. When to come for next vaccination D. Remember to bring card during the next visit	<table border="0"> <tr> <td></td> <td>Yes</td> <td>No</td> </tr> <tr> <td>What injections were given</td> <td>1</td> <td>2</td> </tr> <tr> <td>Side effects of vaccination and their management</td> <td>1</td> <td>2</td> </tr> <tr> <td>When to come back....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Remember to bring card during next visit</td> <td>1</td> <td>2</td> </tr> </table>		Yes	No	What injections were given	1	2	Side effects of vaccination and their management	1	2	When to come back....	1	2	Remember to bring card during next visit	1	2		
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When to come back....	1	2																	
Remember to bring card during next visit	1	2																	

Q. No.	Question	Responses	Code	Skip to
Check 407-416. If the child has not received any/some of the vaccinations, then ask 437. If child has received, all vaccinations, then skip to 501				
437.	Your child has not received any or some of the vaccinations, what are the reasons? Any other? Record all mentioned	Do not feel need for vaccination A Do not know what vaccines are needed and when? B Do not know where to take child for immunization C Fear of side effects..... D Services not available when required E Cannot afford the cost..... F Too far to take the child G Did not have time to take child for immunization H Advised against immunization by some body I Anm absent J Vaccine not available K Time is not convenient L Place is not convenient M Long waiting time..... N Other (specify) X		

SECTION 5: BREASTFEEDING AND SUPPLEMENTARY FEEDING PRACTICES

Instruction: In case the respondent is a care taker skip to 513

Q. No.	Question	Responses	Code	Skip to
501.	Did you ever breastfeed [name]?	Yes 1 No..... 2		→ 511
502.	How long after birth did you first put (name) to the breast? If less than half an hour, circle '000'. If less than 24 hours, record hours Otherwise, record days	Immediately/within half an hour 000 Hours..... 1 <input type="text"/> <input type="text"/> Days 2 <input type="text"/> <input type="text"/>		
503.	Was the colostrums ('keel/yellowish/thick breast milk) fed to the child?	Yes, was fed to the child 1 No..... 2		→ 505
504.	Why colostrum was not fed to the child? (Use local term for colostrum) Anything else? Record all mentioned	Relatives against feeding colostrum..... 1 Against religion/tradition 2 Colostrum is harmful to the child..... 3 Infant may get diarrhoea..... 4 Advised not to feed child for 3 days 5 Others (specify) 6		
504a.	Was the child given any prelacteal feed before starting breastfeeding?	Yes 1 No..... 2		
505.	In the first three days after delivery, was [name] given anything to drink other than breast milk	Yes 1 No..... 2		→ 507
506.	What was [name] given to drink? Anything else? Record all mentioned	Milk (other than breast milk) A Plain water.....B Sugar or glucose waterC Gripe water..... D Sugar-salt-water solution.....E Fruit juice..... F Infant formula G Tea H Honey..... I Janam ghutti J Other (specify) X		
507.	Are you still breastfeeding?	Yes 1 No..... 2		→ 509
508.	How many times in last 24 hours, you breastfeed your child?	Number <input type="text"/>		
509.	Till how many days/months did you exclusively breastfeed the child?	Days..... 1 <input type="text"/> <input type="text"/> Months..... 2 <input type="text"/> <input type="text"/>		
510.	During first six months of [name] what type of feeding was done? Any thing else?	Breast milk..... A WaterB Other milk.....C Other food suppliments D Other (specify)..... X		

Q. No.	Question	Responses	Code	Skip to
511.	Did anybody talk to you as to when breast feeding needs to be initiated?	Yes 1 No..... 2		→ 513
512.	From where did you get these information? Any one else? RECORD ALL MENTIONED	Anm/lhv/health worker (male) A AWW B Govt. Doctor C Pvt. Doctor D Social worker, ngo worker E Radio/tv..... F Billboards, posters at health centers, Booklets, newspaper etc. G Husband or family members H Asha I Traditional birth attendant J Friends/neighbours..... K Other (specify) X		
513.	Has (name) had diarrhoea in the last two weeks?	Yes 1 No..... 2 Don't know 8		} 518
514.	During the current (last) episode of diarrhoea have you given the following liquids to the child? A. Plain water B. Salt and sugar solution C. Fruit juice D. Lime water E. Gruel made from rice (other local grain) F. Home remedy G. Breast milk		Yes No A. Plain water 1 2 B. Salt and sugar solution..... 1 2 C. Fruit juice 1 2 D. Lime water 1 2 E. Gruel made from rice (other local grain) 1 2 F. Home remedy 1 2 G. Breast milk..... 1 2	
515.	Did you give ors solution to child during the current (last) episode of diarrhoea?	Yes 1 No..... 2		
515a.	If respondent is care taker (210b = 2) and/or 507=2 skip to q515b How much (name) was breastfed during the current (last) episode of diarrhoea? Was he/she breastfed less than usual, usual or more than usual?	Less than usual 1 Usual..... 2 More than usual..... 3		
515b.	How much (name) was given to drink during the current (last) episode of diarrhoea? Was he/she given less than usual, usual or more than usual?	Less than usual 1 Usual..... 2 More than usual..... 3		
515c.	How much (name) was given to eat during the current (last) episode of diarrhoea? Was he/she given less than usual, usual or more than usual?	Less than usual 1 Usual..... 2 More than usual..... 3		
516.	Did you seek advice or treatment for the diarrhoea from any source?	Yes 1 No..... 2		→ 518

Q. No.	Question	Responses	Code	Skip to
517.	<p>Where did you seek advice or treatment?</p> <p>Anywhere else?</p> <p>If unable to determine if a hospital/ health centre/clinic is government or private medical sector, write the name of the place(s)</p> <p>_____</p> <p>Name of the place(s)</p> <p>(Record all mentioned)</p>	<p>Government</p> <p>Hospital A</p> <p>Dispensary B</p> <p>UHC/UHP/UFWC C</p> <p>CHC/rural hospital D</p> <p>PHC E</p> <p>Sub-centre..... F</p> <p>Anganwadi/icds centre G</p> <p>Asha..... H</p> <p>Ayush hospital/clinic I</p> <p>Other public sector health facility J</p> <p>NGO/trust hosp./Clinic K</p> <p>Private</p> <p>Hospital I</p> <p>Doctor/clinic M</p> <p>Ayush hospital/clinic N</p> <p>Pharmacy/drug store..... O</p> <p>Other pvt. Sector health facility P</p> <p>Other (specify) _____ X</p>		
518.	Has (name) been ill with fever at any time in the last two weeks?	<p>Yes 1</p> <p>No..... 2</p> <p>Don't know 8</p>		
519.	Has (name) been ill with cough at any time in the last two weeks?	<p>Yes 1</p> <p>No..... 2</p> <p>Don't know 8</p>		} 601
520.	When (name) had this illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty in breathing?	<p>Yes 1</p> <p>No..... 2</p> <p>Don't know 8</p>		
521.	Did you seek advice or treatment for the illness from any source?	<p>Yes 1</p> <p>No..... 2</p>		→ 601
522.	<p>Where did you seek advice or treatment?</p> <p>Anywhere else?</p> <p>If unable to determine if a hospital/ health centre/clinic is government or private medical sector, write the name of the place(s)</p> <p>_____</p> <p>Name of the place(s)</p> <p>(Record all sources mentioned)</p>	<p>Government</p> <p>Hospital A</p> <p>Dispensary B</p> <p>UHC/UHP/UFWC C</p> <p>CHC/rural hospital D</p> <p>PHC E</p> <p>Sub-centre..... F</p> <p>Anganwadi/icds centre G</p> <p>Asha..... H</p> <p>Ayush hospital/clinic I</p> <p>Other public sector health facility J</p> <p>NGO/trust hosp./Clinic K</p> <p>Private</p> <p>Hospital I</p> <p>Doctor/clinic M</p> <p>Ayush hospital/clinic N</p> <p>Pharmacy/drug store..... O</p> <p>Other pvt. Sector health facility P</p> <p>Other (specify) _____ X</p>		

SECTION 6: ACCESSIBILITY OF IMMUNISATION SERVICES

Q. No.	Question	Responses	Code	Skip to
601.	How often ANM/Health Worker comes to this village/area for vaccination?	Once a week 1 Two to three times a month 2 Once a month..... 3 Once a quarter 4 Sometimes 5 Never 6 DK/CS 7 Other (specify) 96		
602.	Is routine immunization session held in your village/area?	Yes 1 No..... 2 Don't know..... 8		} 606
603.	Where it is held?	Icds centre/awc 1 Sub-centre/urban health post..... 2 Pradhan's house 3 Community center 4 Under a tree 5 Home 6 Other (specify) 96		→ 505
604.	Are the sessions always held at the same place?	Yes 1 No..... 2		
605.	Is this place convenient for you to take services?	Yes 1 No..... 2		
606.	What are your suggestions to improve such sessions? Probe for week day, convenient place etc.	Record all suggestions		

Thank The Respondent And End The Interview

APPENDIX 3

QUESTIONNAIRE Maternal Care Services

Schedule Number

IDENTIFICATION	
State.....	<input type="text"/> <input type="text"/>
District.....	<input type="text"/> <input type="text"/>
CD block/tehsil/taluk	
Rural/Urban (Rural – 1, urban – 2)	<input type="checkbox"/>
PSU Number	<input type="text"/> <input type="text"/> <input type="text"/>
Name of Village/Ward	
Name of Household Head.....	<input type="text"/> <input type="text"/>
Address.....	
Name of the respondent for the first section	
Number of mothers with child 12-23 months in the household	<input type="checkbox"/>
Interview Date Month Year Date <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Number of visits made	<input type="checkbox"/>
Result status of questionnaire	Completed 1 No eligible respondent at home..... 2 Entire HH absent for extended period 3 Refused..... 4 Other (specify)..... 6
_____ <input type="text"/> <input type="text"/>	_____
Name and code of the investigator	Signature of the investigator
Spot/back checked by	
Name	Date

Introduce yourself in the following way:

Namaste! My name is ----- and I am working for ORG Centre for Social Research. We are conducting a national survey for Government of India/UNICEF on immunization services for children and maternal care of women. We would greatly appreciate the participation of your household in this survey. I would like to ask you some questions about your household and some about the maternal care services of the women who has delivered a child in last 12 months. All Information you provide will be kept strictly confidential and used only for research.

This questionnaire is for maternal care of women who had delivery in last 12 months. If this information suggests that there is no woman who delivered during the last 12 months, then politely discontinue.

SECTION 1: HOUSEHOLD PROFILE

This section to be administrated to the head of the household/any other adult respondent

Q. No.	Question	Responses	Code	Skip to												
120.	How many members usually live in this household including yourself?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">Males</th> <th style="width: 20%; text-align: center;">Females</th> </tr> </thead> <tbody> <tr> <td>Members >= 5 years</td> <td style="text-align: center;">□ □</td> <td style="text-align: center;">□ □</td> </tr> <tr> <td>Members <5 years</td> <td style="text-align: center;">□ □</td> <td style="text-align: center;">□ □</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">□ □</td> <td style="text-align: center;">□ □</td> </tr> </tbody> </table>		Males	Females	Members >= 5 years	□ □	□ □	Members <5 years	□ □	□ □	Total	□ □	□ □		
	Males	Females														
Members >= 5 years	□ □	□ □														
Members <5 years	□ □	□ □														
Total	□ □	□ □														
121.	What is the religion of the head of household?	Hindu 1 Muslim..... 2 Sikh..... 3 Christian 4 Jain 5 Other (specify) 6														
122.	What is the caste of the head of household?	Scheduled caste..... 1 Scheduled tribe..... 2 Other backward class 3 Other castes 4														
Now I will like to ask you some questions about your household																
123.	What kind of toilet facility does your household use?	Flush or pour flush toilet Own flush toilet 1 Shared flush toilet..... 2 Public flush toilet..... 3 Pit latrine/latrine Own pit toilet/latrine 4 Shared pit toilet/latrine5 Public pit toilet/latrine..... 6 No facility/bush/field 7 Other (specify)..... 96														

Q. No.	Question	Responses	Code	Skip to
124.	What is the main source of lighting for your household?	Electricity 1 Solar energy..... 2 Kerosene..... 3 Biogas..... 4 Gas 5 Oil..... 6 Other (specify) _____ 7		
125.	What type of fuel does your household mainly use for cooking?	Electricity 1 Lpg/natural gas 2 Biogas..... 3 Kerosene..... 4 Coal/lignite 5 Charcoal..... 6 Wood 7 Straw/shrubs/grass..... 8 Agricultural crop waste..... 9 Dung cakes..... 10 Other (specify)_____ 96		
126.	What is the main source of drinking water for members of your household?	Piped water Piped into residence/yard/plot 1 Public tap 2 Ground water Hand pump into residence/yard/plot... 3 Public hand pump 4 Well water Well into residence/yard/plot Protected well 5 Unprotected well 6 Public well Protected well 7 Unprotected well 8 Spring water Protected spring 9 Unprotected spring 10 Rain water 11 Tanker/truck..... 12 Surface water 13 Other (specify) _____ 96		
127.	Does your household own this house or any other house?	Yes 1 No..... 2		
128.	How many rooms in this household are used for sleeping?	Rooms..... <input type="text"/> <input type="text"/>		
129.	Does your household own any agricultural land?	Yes 1 No..... 2		→ 113
130.	How much agriculture land does this household own? _____ (If not in acres, specify size and unit	Acres... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>		

Q. No.	Question	Responses	Code	Skip to
131.	Out of this land, how much land is irrigated? (If not in acres, specify size and unit)	Acres... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> None..... 9995		
132.	Does your household own any livestock?	Yes 1 No..... 2		
133.	Do you have the following items in your house?	Yes No		
	Mattress?	Mattress 1 2		
	Pressure cooker?	Pressure cooker 1 2		
	Chair?	Chair 1 2		
	Cot or bed?	Cot or bed 1 2		
	Table?	Table 1 2		
	Electric fan?	Electric fan 1 2		
	Radio or transistor?	Radio or transistor 1 2		
	Black and white television?	Black and white television 1 2		
	Colour television?	Colour television 1 2		
	Sewing machine?	Sewing machine 1 2		
	Mobile telephone?	Mobile telephone 1 2		
	Other type of telephone?	Other type of telephone 1 2		
	Computer?	Computer 1 2		
	Refrigerator?	Refrigerator 1 2		
	Watch or clock?	Watch or clock 1 2		
	Bicycle?	Bicycle 1 2		
	Motor cycle or scooter?	Motor cycle or scooter 1 2		
	Animal-drawn cart?	Animal-drawn cart 1 2		
	Car?	Car 1 2		
	Water pump?	Water pump 1 2		
	Thresher?	Thresher 1 2		
	Tractor?	Tractor 1 2		
134.	Does any usual member of this household have a bank account or a post office account?	Yes 1 No..... 2 Don't know 8		
135.	Does this household have a BPL card?	Yes 1 No..... 2 Don't know 8		
136.	Type of house Record observations Roof..... Wall..... Floor.....	Kachha 1 Semi-pucca..... 2 Pucca..... 3		
137.	Type of windows Record observations	Yes No Any windows 1 2 Windows with glass 1 2 Windows with screen 1 2 Windows with curtains or shutters.. 1 2		
138.	Ask respondent for a teaspoonful of cooking salt. Test salt for iodine Record ppm (parts per million)	0 Ppm (no iodine) 1 Less than 15 ppm..... 2 More than 15 ppm 3 No salt in household 4		

SECTION 2: RESPONDENT'S BACKGROUND CHARACTERISTICS

(Target Population: Index Mother with delivery in last 12 months)

Q. No.	Question	Responses	Code	Skip to
201.	Name of the woman <input type="checkbox"/>		
202.	What is your age? (In completed years)	Age in completed years..... <input type="checkbox"/> <input type="checkbox"/>		
203.	Can you read and write any language with understanding?	Yes 1 No..... 2		
204.	Have you ever been to school?	Yes 1 No..... 2		→ 206
205.	How many years of schooling you have completed?	Years of schooling completed..... <input type="checkbox"/> <input type="checkbox"/>		
206.	Can your husband read and write in any language with understanding?	Yes 1 No..... 2 Not applicable..... 9		→ 209
207.	Has your husband ever been to school?	Yes 1 No..... 2		→ 209
208.	How many years of schooling your husband has completed?	Years of schooling completed..... <input type="checkbox"/> <input type="checkbox"/> Don't know..... 98		
209.	How many deliveries you had?	Number..... <input type="checkbox"/> <input type="checkbox"/>		
210.	How many live births you had?	Number <input type="checkbox"/> <input type="checkbox"/> No live birth 00		→ 212
211.	How many children are currently living?	Male..... <input type="checkbox"/> Female..... <input type="checkbox"/>		
212.	What was the outcome of your last pregnancy?	Still birth..... 1 Live birth..... 2		→ 217a
213.	Is the child alive?	Yes 1 No..... 2		→ 216
214.	Name of the child		
215.	What is the current age of the child? (If less than 1 month code 00)	Age in completed months..... <input type="checkbox"/> <input type="checkbox"/>		→ 217a
216.	What was the age of the child at the time of death? (If age is less than 1 month, then record in days)	Age in completed months <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Age in days <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
217a.	Does this household have a bed-net that can be used for sleeping?	Yes 1 No..... 2		→ 301
217.	How many days during the last one week the mother slept under the bed-net?	Number of days <input type="checkbox"/>		
218.	Was the bed-net treated with a chemical (insecticide) to kill mosquitoes/bugs in the last 6 months?	Yes 1 No..... 2 Don't know 8		

SECTION 3: ANTE-NATAL, NATAL AND POST-NATAL CARE

Q. No.	Question	Responses	Code	Skip to
Now I would like to ask you some questions about the Antenatal, Natal and Post-Natal care for your pregnancy that happened during last one year.				
301.	Did you register your last pregnancy for getting antenatal care services?	Yes 1 No..... 2		→ 303
302.	Pregnancy was registered with whom?	Government doctor 1 Private doctor..... 2 Anm 3 Anganwadi worker 4 Asha..... 5 Other (specify)..... 6		
303.	When you were pregnant with (NAME/ THE STILL BIRTH), did you receive antenatal care?	Yes 1 No..... 2 (If No, probe)		→ 311
304.	In which month of last pregnancy did you receive first antenatal care?	Months..... <input type="text"/> <input type="text"/> Don't know 98		
305.	How many times you received antenatal check up during last pregnancy?	Number of times..... <input type="text"/> <input type="text"/> Don't know 98		
306.	Where did you receive antenatal care for last pregnancy? Any other place? If unable to determine if a hospital/ health centre/clinic is government or private medical sector, write the name of the place(s) _____ Name of the place(s) (Record all mentioned)	Government Hospital A Dispensary B UHC/uhp/ufwc..... C CHC/RUR. Hosp D PHC E Sub-centre..... F Anganwadi/icds centre G Ayush hospital/clinic H Other public sect. Health facility I NGO/trust hosp./Clinic J Private Hosp./Maternityhome/clinic K Ayush hospital/clinic L Other Pvt. Sect. Health facility..... M Home Home N Parents'home..... O Other home..... P Other (specify)..... X		

Q. No.	Question	Responses	Code	Skip to
307.	As part of your antenatal care during last pregnancy, were any of the following done at least once? (READ OUT) Weight measured? Height measured? Blood pressure checked? Blood tested? Urine tested? Abdomen examined? Breast examined? Sonogram or Ultrasound done? Delivery date told? Delivery advice given? Nutrition advice given?	<p style="text-align: right;">Yes No</p> Weight1 2 Height1 2 Blood pressure.....1 2 Blood.....1 2 Urine1 2 Abdomen.....1 2 Breast examined1 2 Sonogram or ultrasound.....1 2 Delivery date1 2 Delivery advice1 2 Nutrition advice1 2		
308.	During (any of) your antenatal care visit (s), did any one tell you about the following signs of pregnancy complications? (READ OUT) Vaginal bleeding? Convulsions? Prolonged labour?	<p style="text-align: right;">Yes No</p> Vaginal bleeding1 2 Convulsions.....1 2 Prolonged labour1 2		
309.	Did any one tell you where to go (health facility) if you have any pregnancy complications?	Yes 1 No.....2		
310.	During (any of) your antenatal visit (s), did you receive advice on the following at least once? (READ OUT) Breastfeeding? Keeping the baby warm? Need for cleanliness at the time of delivery? Family planning advice? Better nutrition for mother and child? Need for Institutional Delivery? Advice to use iodised salt Counseling for IFA tablets	<p style="text-align: right;">Yes No</p> Breastfeeding1 2 Keeping baby warm1 2 Cleanliness1 2 Family planning1 2 Nutrition1 2 Institutional delivery.....1 2 Advice to use iodised salt1 2 Counseling for ifa tablets.....1 2		
311.	Did you receive/purchase IFA tablets/syrup bottles?	Yes 1 No.....2		→ 315
312.	How many IFA tablets/syrup bottles did you receive/purchase during last pregnancy?	Number of tablets..... <input type="text"/> <input type="text"/> <input type="text"/> Number of bottles..... <input type="text"/> <input type="text"/> <input type="text"/>		

Q. No.	Question	Responses	Code	Skip to
313.	From where did you get Iron Folic Acid (IFA) tablets/syrup? (Record all mentioned)	Government Hospital.....A Dispensary.....B UHC/UHP/UFWC.....C Chc/rural hospital.....D PHC.....E Sub center..... F Ayush/hospital/clinic.....G Doctor..... H Anm/nurse..... I Asha/aww.....J Health worker at home.....K Ngo/trust hospital/clinic.....L Private Hospital/clinic.....M Ayush hospital/clinic.....N Doctor.....O Nurse.....P Chemist/pharmacy.....Q Other (specify) _____X		
314.	During the last pregnancy, for how many days and how much did you take the Iron Folic Acid (IFA) Tablets/Syrup bottles?	A) Iron folic acid tablets Number of days Number of tablets <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't know....998 Don't know ...998 B) Iron folic acid syrup Number of days Number of bottles <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Don't know998 Don't know98		
315.	Were you given an injection during last pregnancy to prevent Tetanus?	Yes 1 No..... 2		→ 317
316.	During last pregnancy, how many times did you get a Tetanus injection?	Number of times <input type="text"/> Don't know 8		
317.	(If 'no' in q303, ask q317 else skip to 318) Why did you not go for an antenatal check-up? (Record all mentioned)	Not necessary..... A Not customary.....B Cost too much.....C Too far/no transport D Poor quality serviceE service provider not available F family did not allow..... G Lack of knowledge..... H No time to go I other (specify) _____X		} → 329

Q. No.	Question	Responses	Code	Skip to
318.	Who facilitated or motivated you to avail antenatal care? (Record all mentioned)	Doctor A Anm B Health worker..... C Anganwadi worker D Asha E Ngo/cbo F Husband G Mother-in-law..... H Mother..... I Relatives/friends..... J Self..... K Other (specify)..... X		
319.	During your last pregnancy did you suffer from any of the following health problems? (READ OUT) Swelling of hands, feet and Face Paleness/giddiness/weakness Visual disturbances Excessive fatigue Convulsions not from fever Weak or no movement of foetus Abnormal position of foetus Malaria Excessive vomiting Hypertension/High BP Jaundice Excessive bleeding Vaginal Discharge Other (Specify).....	Yes No Any windows1 2 Swelling of hands, feet and face1 2 Paleness/giddiness/weakness.....1 2 Visual disturbances1 2 Excessive fatigue1 2 Convulsions not from fever1 2 Weak or no movement of foetus.....1 2 Abnormal position of foetus.....1 2 Malaria.....1 2 Excessive vomiting.....1 2 Hypertension/high bp.....1 2 Jaundice1 2 Excessive bleeding1 2 Vaginal discharge1 2 Other (specify)1		If 'no' For all Go to → 322
320.	Did you seek treatment for any of these above (319) health problems?	Yes 1 No..... 2		→ 322
321.	Where did you go for consultation or to seek treatment? (For problems mentioned in 319) (Record all mentioned)	Government Hospital..... A Dispensary..... B UHC/UHP/UFWC C CHC/Rural hospital..... D PHC E Sub center F Ayush hospital/clinic G NGO/trust hospital/clinic..... H Private Hospital/clinic..... I Ayush hospital/clinic J Other (specify)..... X		
322.	Did you receive any supplementary nutrition from the Anganwadi centre during last pregnancy?	Yes 1 No..... 2		→ 325

Q. No.	Question	Responses	Code	Skip to
323.	In a week, how many days you have received supplementary nutrition from Anganwadi centre?	Number of Days..... <input type="checkbox"/>		
324.	Whether you have shared this food with other family members?	Yes 1 No..... 2		
325.	Where did your last delivery take place?	Government Hospital 1 Dispensary 2 UHC/UHP/UFWC 3 CHC/rural hospital 4 PHC 5 Sub center 6 Ayush hospital/clinic 7 NGO/trust hospital/clinic..... 8 Private Hospital/clinic 9 Ayush hospital/clinic 10 On the way to hospital..... 11 At home 12 Other (specify)_____ 96		} → 327
326.	Who facilitated or motivated you to go to health facility for delivery? (Record all mentioned)	Doctor A Anm B Health worker C Anganwadi worker D Asha E NGO/CBO..... F Husband G Mother-in-law..... H Mother I Relatives/friends J Self K None L Other (specify)_____ X		
327.	During delivery, did you experience any of the following problems? (READ OUT)		Yes No	
	Did you experience premature labour?	Any windows 1	2	
	Did you experience excessive bleeding?	Premature labour..... 1	2	
	Did you experience prolonged labour?	Excessive bleeding 1	2	
	Did you experience obstructed labour?	Prolonged labour 1	2	
	Did you experience breech presentation?	Obstructed labour..... 1	2	
	Did you experience Convulsion?	Breech presentation 1	2	
	Did you experience High B.P?	Convulsion 1	2	
	Any Other?	High b.P 1	2	
		Other (specify)_____ 1	2	
328.	Was the delivery normal or caesarean or assisted?	Normal..... 1 Caesarean 2 By instrument or assisted 3		

Q. No.	Question	Responses	Code	Skip to
329.	Who conducted your last delivery?	Health personnel Doctor 1 ANM/Nurse/LHV 2 Other person Dai..... 3 Relatives/friends 4 Other (specify)..... 6 No one 9		
330.	At the time of last delivery were the following done? (READ OUT)		Yes No DK	
	A. Was the baby immediately wiped dry and then wrapped?	A. Wiped and wrapped	1 2 9	
	B. Was the child given bath immediately after delivery?	B. Given bath	1 2 9	
	C. Was a new/sterilized blade used to cut the cord?	C. New/sterilized blade	1 2 9	
	D. Was a Disposable Delivery Kit (Mamta Kit) used?	D. DDK/mamta kit used	1 2 9	
331.	Check Q325: if code 12 & 96, ask q331 else skip to 332 What are the reasons for not going to health facility for delivery? (Record all mentioned)	A. Cost too much A B. Poor quality service.....B C. Too far/no transportC D. No time to go..... D E. Not necessaryE F. Not customary F G. Better care at home G H. Family did not allow H I. Lack of knowledge..... I X. Other (specify).....X		
Check 325: if institutional delivery then ask 332 to 336 else skip to 337				
332.	What was the main mode of transportation used by you to reach the health facility?	Ambulance 1 Jeep/car 2 Motorcycles/Scooter..... 3 Bus/train 4 Tempo/auto/tractor..... 5 Cart..... 6 On foot..... 7 Other (specify)..... 96		
333.	How far was the place of delivery from your house? If less than one km code '00'	KMs..... <input type="text"/> <input type="text"/> Don't know/can't say98		
334.	How long it took to reach that place?	Minutes <input type="text"/> <input type="text"/> <input type="text"/>		
335.	How much it cost you for the transportation to the health facility for delivery?	Rupees..... <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No cost paid00000 Don't know..... 99998		

Q. No.	Question	Responses	Code	Skip to
336.	How much cost you incurred for delivery excluding transport cost?	Delivery costRupees <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> No cost paid.....00000 Don't know99998		
337.	Do you know the danger signs of new born? (READ OUT) A. Baby does not cry immediately B. Blue tongue & lips C. Difficulty in breathing D. Cold/hot to touch E. Abnormal movement F. Poor sucking of breast G. Develop yellow staining of palm and soles	 A. Baby does not cry immediately ..1 B. Blue tongue & lips1 C. Difficulty in breathing1 D. Cold/hot to touch.....1 E. Abnormal movement.....1 F. Poor sucking of breast.....1 G. Develop yellow staining of palm and soles1	 Yes No 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
338.	Did you (mother) have any check-up within first 10 days after delivery?	Yes 1 No.....2		→ 343
339.	Did you (mother) have any check-up within first hour after delivery?	Yes 1 No.....2 Don't know 8		
340.	How many check ups were done during 3-7 days after delivery?	Number of check UPS <input type="text"/> <input type="text"/>		
341.	Where did the first check-up take place?	Government Hospital 1 Dispensary 2 UHC/UHP/UFWC 3 CHC/Rural hospital 4 PHC 5 Sub center 6 ICDS 7 Ayush hospital/clinic 8 NGO/trust hospital/clinic..... 9 Private Hospital/clinic 10 Ayush hospital/clinic 11 Home Doctor 12 ANM/Nurse 13 Asha 14 AWW 15 Other (specify) 96		

Q. No.	Question	Responses	Code	Skip to
342.	Did any of the following happen when you had the check-up: (READ OUT) A. Was your abdomen examined? B. Was Vulva and the Perineum examined? C. Was B.P and Pulse was measured? D. Did you receive advice on breastfeeding? E. Did you receive advice on baby care? F. Did you receive advice on family planning? G. Did you receive advice on nutrition? X. Any other?	<p style="text-align: right;">Yes No</p> Abdomen examined.....1 2 Vulva and perineum examined1 2 B.P. And pulse measured.....1 2 Advice on breastfeeding1 2 Advice on baby care1 2 Advice on family planning1 2 Advice on nutrition1 2 Other (specify) _____1		
	Check 212 :Live birth <input type="checkbox"/> <p style="text-align: center;">Last Pregnancy</p>	Still birth <input type="checkbox"/> <p style="text-align: center;">Last Pregnancy</p>		→ 501
343.	Did your child have any check-up after delivery within 24 hours of birth?	Yes 1 No.....2 Child did not survive 3 Don't know 8		345 501 345
344.	Did any of the following happen when your child had the check-up: A. Checked the umbilicus, skin and eyes B. Informed, the baby should be warm to touch at the abdomen and the soles of the feet should be pink C. Ensured good sucking at the breast D. Asked for danger signs (Refer Q337 for danger signs)	<p style="text-align: right;">Yes No DK</p> Checked the umbilicus, skin and eyes 1 2 8 Informed, the baby should be warm to touch at the abdomen 1 2 8 Ensured good sucking at the breast 1 2 8 Asked for danger sign..... 1 2 8		

Q. No.	Question	Responses	Code	Skip to
345.	How many check-ups took place for the new born child within 10 days of his/her birth?	No. of times..... <input type="checkbox"/> (If more than 5 record 5) Check up not done at all..... 0 Child not survived till 10 days 7 Don't know 8		} → 401
346.	Where did first check-up take place for your child?	Government Hospital 1 Dispensary 2 UHC/UHP/UFWC 3 CHC/Rural hospital 4 Phc 5 Sub center 6 Icdis 7 Ayush hospital/clinic 8 Ngo/trust hospital/clinic 9 Private Hospital/clinic 10 Ayush hospital/clinic 11 Home Doctor 12 Anm/nurse 13 Asha 14 Aww 15 Other (specify) 96		

SECTION 4: BREASTFEEDING AND SUPPLEMENTARY FEEDING PRACTICES

CHECK Q212: IF STILL BIRTH SKIP TO Q501

Q. No.	Question	Responses	Code	Skip to
401.	Did you ever breastfeed [Name]?	Yes 1 No..... 2		→ 411
402.	When did you first breast feed your child? If less than one hour, circle '000'. If less than 24 hours, record hours Otherwise, record days	Immediately/within an hour..... 000 Hours 1 <input type="text"/> <input type="text"/> Days 2 <input type="text"/> <input type="text"/>		
403.	Was the colostrum ('Keel/yellowish/thick breast milk) fed to the child?	Yes, was fed to the child 1 No..... 2		→ 405
404.	Why colostrum was not fed to the child? (Use local term for colostrum) Record verbatim	Relatives against feeding colostrum..... 1 Against religion/tradition 2 Colostrum is harmful to the child..... 3 Infant may get diarrhoea..... 4 Advised not to feed child for 3 days 5 Others (specify) 6		
404a.	Was the child given any prelacteal feed before starting breastfeeding?	Yes 1 No..... 2		
405.	In the first three days after delivery, was [NAME] given anything to drink other than breast milk	Yes 1 No..... 2		→ 407
406.	What was [NAME] given to drink? Anything else? Record all mentioned	Milk (other than breast milk) A Plain water.....B Sugar or glucose waterC Gripe water..... D Sugar-salt-water solution.....E Fruit juice..... F Infant formula G Tea H Honey..... I Janam ghutti J Other (specify) X		
Check q213: if child is alive ask following questions else skip to q501				
407.	Are you currently breastfeeding (NAME)?	Yes 1 No..... 2		→ 409
408.	How many times in last 24 hours, you breastfeed your child?	Number <input type="text"/> <input type="text"/>		
409.	Till how many days/months did you exclusively breastfeed the child?	Days 1 Months 2 Continuing..... '000'		

Q. No.	Question	Responses	Code	Skip to
410.	During first six months of [NAME] what type of feeding was done? Any thing else?	Breast milk..... A Water B Other milk..... C Other food suppliments D Other (specify)..... X		
411.	Did anybody talk to you as to when breast feeding needs to be initiated?	Yes 1 No..... 2		→ 413
412.	From where did you get these information? Any one else? Record all mentioned	Anm/lhv/health worker (male)..... A Aww B Govt. Doctor C Pvt. Doctor..... D Social worker, ngo worker E Radio/Tv..... F Billboards, posters at health centers, Booklets, newspaper etc. G Husband or family members H Asha I Traditional birth attendant J Friends/neighbours..... K Other (specify) X		
413.	At what age/month you have started giving baby other fluids, semisolid, and solid foods?	<p style="text-align: right;">Months</p> Other fluids <input type="text"/> <input type="text"/> Semisolid food <input type="text"/> <input type="text"/> Solid food <input type="text"/> <input type="text"/> Not given anything so far 99		→ 415
414.	Now I would like to ask you about liquids (NAME) drank yesterday, during the day or at night? Did (NAME) drink: (READ OUT)	<p style="text-align: right;">Yes No</p> A. Plain water? Any windows 1 2 B. Commercially produced infant food? Plain water..... 1 2 C. Any other milk such as tinned, powdered, or fresh animal milk? Infant food..... 1 2 D. Fruit juice? Tinned, powdered or fresh animal milk 1 2 E. Tea or coffee? Fruit juice..... 1 2 F. Any other liquids? Tea/coffee..... 1 2 Other liquids..... 1 2		
415.	Whether the child is registered at Anganwadi centre?	Yes 1 No..... 2		
416.	Has (NAME) had Diarrhoea in the last two weeks?	Yes 1 No..... 2 Don't know 8		→ 422

Q. No.	Question	Responses	Code	Skip to
417.	During the current (last) episode of diarrhoea have you given the following liquids to the child? : (READ OUT) A. Plain water B. Salt and sugar solution C. Fruit juice D. Lime water E. Gruel made from rice(other local grain) F. Home remedy G. Breast milk		Yes No	
		Plain water.....	1 2	
		Salt and sugar solution	1 2	
		Fruit juice.....	1 2	
		Lime water.....	1 2	
		Gruel made from rice (other local grain).....	1 2	
		Home remedy	1 2	
		Breast milk.....	1 2	
418.	Did you give ORS solution to child during the current (Last) episode of diarrhoea?	Yes	1	
		No.....	2	
419.	How much (Name) was breastfed during the current (Last) episode of diarrhoea? Was he/she breastfed less than usual, usual or more than usual?	Less than usual	1	
		Usual.....	2	
		More than usual.....	3	
419a.	How much (Name) was given to drink during the current (Last) episode of diarrhoea? Was he/she given less than usual, usual or more than usual?	Less than usual	1	
		Usual.....	2	
		More than usual.....	3	
420.	Did you seek advice or treatment for the diarrhoea from any source?	Yes	1	
		No.....	2	→ 422
421.	Where did you seek advice or treatment? Anywhere else? If unable to determine if a hospital/ health centre/clinic is government or private medical sector, write the name of the place(s) _____ Name of the place(s) (Record all mentioned)	Government Hospital	A	
		Dispensary	B	
		UHC/UHP/UFWC	C	
		Chc/rural hospital	D	
		PHC.....	E	
		Sub-centre.....	F	
		Anganwadi/icds centre	G	
		Asha.....	H	
		Ayush hospital/clinic	I	
		Other public sector health facility	J	
		Ngo/trust hosp./Clinic	K	
		Private Hospital.....	L	
		Doctor/clinic	M	
		Ayush hospital/clinic	N	
		Pharmacy/drug store.....	O	
		Other pvt. Sector health facility.....	P	
		Other (specify).....		
422.	Has (NAME) been ill with fever at any time in the last two weeks?	Yes	1	
		No.....	2	
		Don't know	8	
423.	Has (NAME) been ill with cough at any time in the last two weeks?	Yes	1	} → 501
		No.....	2	
		Don't know	8	

Q. No.	Question	Responses	Code	Skip to
424.	When (NAME) had this illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty in breathing?	Yes 1 No.....2 Don't know 8		
425.	Did you seek advice or treatment for the illness from any source?	Yes 1 No.....2		→ 501
426.	Where did you seek advice or treatment? Anywhere else? If unable to determine if a hospital/ health centre/clinic is government or private medical sector, write the name of the place(s) _____ Name of the place(s) (Record all sources mentioned)	Government Hospital A Dispensary B UHC/UHP/UFWC C CHC/Rural hospital D PHC E Sub-centre..... F Anganwadi/icds centre G Asha..... H Ayush hospital/clinic I Other public sector health facility J NGO/trust hosp./Clinic K Private Hospital..... L Doctor/clinic M Ayush hospital/clinic N Pharmacy/drug store O Other pvt. Sector health facility..... P Other (specify) _____		

SECTION 5: JANANI SURAKSHA YOJANA

Q. No.	Question	Responses	Code	Skip to
501.	Did you register with Sub centre to get MCH card?	Yes 1 No..... 2		
502.	Are you aware of JSY?	Yes 1 No..... 2		
503.	Did you receive any Govt. assistance for delivery care under the Janani Suraksha Yojana (JSY)/State Specific Scheme?	Yes 1 No..... 2		
If institutional delivery (check 325) ask the following questions otherwise go to section vi				
504.	Did ASHA escort/accompany you to health facility for delivery?	Yes 1 No..... 2 No Asha..... 3		→ 506 → 507
505.	Did ASHA stay with you in the health facility after delivery?	Yes 1 No..... 2		
506.	Who arranged for the transport?	Self/family 1 Asha 2 Anm 3 Other (specify) 6		
507.	After how much time of delivery, you were sent home?	Hours [if less than 24 hours]1 <input type="text"/> <input type="text"/> Days.....2 <input type="text"/> <input type="text"/>		
507a.	Did you receive the money under JSY scheme in one or more installments?	One instalment..... 1 Two instalments 2 More than two instalments..... 3 Never got..... 4		→ 512
508.	When did you receive incentive money under JSY scheme?	Before birth 1 Immediately after birth in hospital..... 2 Within first 10 days..... 3 Within one month..... 4 Within three months..... 5 Any time later..... 6		
509.	How money was received?	Cash 1 Cheque..... 2		
510.	Did you face any difficulties in receiving incentives?	Yes 1 No..... 2		→ 512
511.	What difficulties did you face? Record verbatim			
512.	Were you provided with separate bed or shared bed with other patients?	Separate bed 1 Shared bed 2 No bed 3		
513.	Were you counselled after the delivery?	Yes 1 No..... 2		

Q. No.	Question	Responses			Code	Skip to
514.	Now I will ask you about your views on satisfaction levels regarding quality of services at the health facility you visited for delivery. How much satisfied were you with ?					
	Quality of services	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	If dissatisfied give reasons	
	A. Behavior of staffs	1	2	3		
	B. Timely attention	1	2	3		
	C. Cleanliness of ward	1	2	3		
	D. Cleanliness of bathroom	1	2	3		

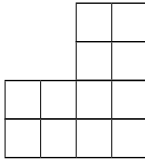
SECTION 6: ACCESSIBILITY OF MATERNAL SERVICES

Q. No.	Question	Responses	Code	Skip to
601.	What is the nearest place where you get antenatal services by skilled service provider?	At home 1 In same village (through visiting anm) 2 Subcentre 3 Phc 4 Govt. Hospital 5 Pvt. Doctor/hospital/clinic 6 Other (specify) 6 Dk/CS 98		→ 605
602.	Is this place is within the village or outside the village	Within the village..... 1 Outside the village..... 2		
603.	How far is this place from your house? If less than one km code '00'	Distance in kms..... <input type="text"/> <input type="text"/>		
604.	How long it takes to travel to the place? (Record in minutes)	Time in minutes <input type="text"/> <input type="text"/> <input type="text"/> Dk/CS 998		
605.	How far is the closest subcentres/urban health post from your house? (Record in kms)	Distance in KMs..... <input type="text"/> <input type="text"/> DK/CS..... 98		
606.	How long it takes for you to reach there? (Record in minutes)	Time in minutes..... <input type="text"/> <input type="text"/> <input type="text"/>		
607.	How often anm comes to this village/area for maternal services?	Once a week 1 Twice a month 2 Once a month..... 3 Once a quarter 4 Sometimes 6 Never 7 Other (specify) 96 Dk/CS 98		

Thank The Respondent And End The Interview

APPENDIX 4

QUESTIONNAIRE
Village Information

IDENTIFICATION	
State _____	
District _____	
CD Block _____	
Name of the village _____	

Name of Interviewer _____
Date of Interview _____

VILLAGE INFORMATION

Q. No.	Questions	Coding Categories		Skip to	
1.	Population of the main village				
2.	Number of Hamlets in of the village				
3.	Distance to nearest town (in km.)	Kms.			
4.	Whether village is connected by all-weather road to other places?	Yes.....	1	7	
		No.....	2		
5.	Type of road?	Kachha Road.....	1		
		Motorable Road.....	2		
6.	What are the educational facilities in the village? (Read out each response)		Yes	No	If No, distance to Nearest facility available (Kms.)
		Primary school : Govt.	1	2	
		Primary school : Private	1	2	
		Middle school	1	2	
		Secondary/Higher secondary school	1	2	
		College	1	2	
		Madarsa	1	2	
Adult education centre	1	2			
7.	What are the health facilities in the village? (Read out each response)		Yes	No	If No, distance to Nearest facility available (Kms.)
		Sub-centre	1	2	
		PHC	1	2	
		CHC	1	2	
		Govt. Hospital	1	2	
		Private clinic	1	2	
		Private hospital	1	2	
Chemist shop	1	2			
8.	Whether ASHA is identified and working in the village	Yes..... No	1 2	10	

Q. No.	Questions	Coding Categories		Skip to
9.	Number of ASHA working in the village?	Number..... <input type="checkbox"/>		
10.	How many anganwadi centres are functioning in the village	Number..... <input type="checkbox"/>		
11.	Population covered by of each anganwadi centre	1 2 3 4		

APPENDIX 5

Sampling Error Estimation

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Mothers received 3+ Antenatal Checkups						
Andhra Pradesh	0.970	0.006	896	0.639	0.958	0.982
Arunachal Pradesh	0.504	0.021	569	4.155	0.463	0.545
Assam	0.664	0.016	881	2.369	0.633	0.695
Bihar	0.338	0.015	1066	4.512	0.308	0.368
Chhattisgarh	0.714	0.018	533	2.573	0.678	0.750
Delhi	0.834	0.015	589	1.779	0.805	0.863
Goa	0.977	0.005	543	0.561	0.966	0.988
Gujarat	0.832	0.013	800	1.573	0.806	0.858
Haryana	0.686	0.018	639	2.564	0.652	0.720
Himachal Pradesh	0.674	0.018	563	2.730	0.638	0.710
Jammu & Kashmir	0.870	0.014	622	1.569	0.843	0.897
Jharkhand	0.575	0.019	637	3.355	0.537	0.613
Karnataka	0.913	0.009	789	1.026	0.895	0.931
Kerala	0.908	0.011	832	1.220	0.886	0.930
Madhya Pradesh	0.600	0.015	1046	2.482	0.571	0.629
Maharashtra	0.826	0.011	1004	1.378	0.804	0.848
Manipur	0.850	0.012	629	1.467	0.826	0.874
Meghalaya	0.710	0.018	581	2.597	0.674	0.746
Mizoram	0.790	0.017	619	2.135	0.757	0.823
Nagaland	0.294	0.019	639	6.510	0.256	0.332
Orissa	0.770	0.013	947	1.653	0.745	0.795
Punjab	0.734	0.018	583	2.424	0.699	0.769
Rajasthan	0.552	0.016	908	2.957	0.520	0.584
Sikkim	0.873	0.012	537	1.342	0.850	0.896
Tamil Nadu	0.926	0.008	1104	0.876	0.910	0.942
Tripura	0.831	0.014	600	1.688	0.804	0.858
Uttar Pradesh	0.382	0.014	1135	3.785	0.354	0.410
Uttaranchal	0.548	0.020	580	3.679	0.508	0.588
West Bengal	0.832	0.012	838	1.403	0.809	0.855
UT Combined	0.828	0.010	1275	1.236	0.808	0.848

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Mothers received Full Antenatal Care						
Andhra Pradesh	0.462	0.017	896	3.593	0.429	0.495
Arunachal Pradesh	0.163	0.016	569	9.521	0.133	0.193
Assam	0.213	0.013	881	6.272	0.187	0.239
Bihar	0.045	0.009	1066	20.889	0.027	0.063
Chhattisgarh	0.199	0.019	533	9.779	0.161	0.237
Delhi	0.416	0.020	589	4.904	0.376	0.456
Goa	0.534	0.021	543	4.019	0.492	0.576
Gujarat	0.457	0.018	800	3.862	0.422	0.492
Haryana	0.429	0.020	639	4.608	0.390	0.468
Himachal Pradesh	0.392	0.021	563	5.283	0.351	0.433
Jammu & Kashmir	0.435	0.020	622	4.526	0.396	0.474
Jharkhand	0.109	0.014	637	12.550	0.082	0.136
Karnataka	0.402	0.018	789	4.361	0.368	0.436
Kerala	0.779	0.015	832	1.922	0.750	0.808
Madhya Pradesh	0.111	0.011	1046	9.658	0.090	0.132
Maharashtra	0.270	0.014	1004	5.156	0.243	0.297
Manipur	0.284	0.019	629	6.634	0.247	0.321
Meghalaya	0.281	0.019	581	6.883	0.243	0.319
Mizoram	0.217	0.017	619	7.793	0.184	0.250
Nagaland	0.035	0.010	639	28.343	0.016	0.054
Orissa	0.375	0.016	947	4.259	0.344	0.406
Punjab	0.294	0.019	583	6.483	0.257	0.331
Rajasthan	0.146	0.012	908	8.377	0.122	0.170
Sikkim	0.277	0.020	537	7.119	0.238	0.316
Tamil Nadu	0.441	0.015	1104	3.404	0.412	0.470
Tripura	0.215	0.017	600	7.874	0.182	0.248
Uttar Pradesh	0.124	0.010	1135	8.177	0.104	0.144
Uttaranchal	0.170	0.017	580	9.935	0.137	0.203
West Bengal	0.174	0.014	838	7.828	0.147	0.201
UT Combined	0.410	0.014	1275	3.378	0.383	0.437

Appendix 5

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Mothers delivered in an Institution						
Andhra Pradesh	0.942	0.008	896	0.838	0.927	0.957
Arunachal Pradesh	0.699	0.019	569	2.678	0.662	0.736
Assam	0.644	0.015	881	2.351	0.614	0.674
Bihar	0.483	0.015	1066	3.124	0.453	0.513
Chhattisgarh	0.449	0.022	533	4.817	0.407	0.491
Delhi	0.836	0.015	589	1.791	0.807	0.865
Goa	0.998	0.002	543	0.184	0.994	1.000
Gujarat	0.781	0.014	800	1.803	0.753	0.809
Haryana	0.633	0.018	639	2.904	0.597	0.669
Himachal Pradesh	0.503	0.020	563	4.000	0.464	0.542
Jammu & Kashmir	0.809	0.014	622	1.712	0.782	0.836
Jharkhand	0.401	0.020	637	4.943	0.362	0.440
Karnataka	0.864	0.011	789	1.272	0.842	0.886
Kerala	0.999	0.001	832	0.120	0.997	1.000
Madhya Pradesh	0.810	0.012	1046	1.484	0.786	0.834
Maharashtra	0.818	0.012	1004	1.496	0.794	0.842
Manipur	0.800	0.016	629	1.954	0.769	0.831
Meghalaya	0.636	0.019	581	3.000	0.599	0.673
Mizoram	0.830	0.015	619	1.825	0.800	0.860
Nagaland	0.304	0.019	639	6.391	0.266	0.342
Orissa	0.755	0.013	947	1.764	0.729	0.781
Punjab	0.603	0.019	583	3.217	0.565	0.641
Rajasthan	0.705	0.014	908	1.986	0.678	0.732
Sikkim	0.689	0.018	537	2.627	0.654	0.724
Tamil Nadu	0.984	0.004	1104	0.446	0.975	0.993
Tripura	0.826	0.014	600	1.742	0.798	0.854
Uttar Pradesh	0.621	0.015	1135	2.335	0.593	0.649
Uttaranchal	0.535	0.020	580	3.725	0.496	0.574
West Bengal	0.695	0.015	838	2.186	0.665	0.725
UT Combined	0.881	0.008	1275	0.932	0.865	0.897

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Delivery attended by Skill Birth Attendant						
Andhra Pradesh	0.956	0.007	896	0.730	0.942	0.970
Arunachal Pradesh	0.719	0.018	569	2.542	0.683	0.755
Assam	0.655	0.015	881	2.292	0.626	0.684
Bihar	0.532	0.015	1066	2.786	0.503	0.561
Chhattisgarh	0.564	0.021	533	3.665	0.523	0.605
Delhi	0.846	0.015	589	1.721	0.817	0.875
Goa	0.998	0.002	543	0.184	0.994	1.000
Gujarat	0.852	0.012	800	1.452	0.828	0.876
Haryana	0.693	0.018	639	2.534	0.659	0.727
Himachal Pradesh	0.537	0.020	563	3.695	0.498	0.576
Jammu & Kashmir	0.829	0.014	622	1.630	0.803	0.855
Jharkhand	0.473	0.020	637	4.180	0.434	0.512
Karnataka	0.884	0.010	789	1.153	0.864	0.904
Kerala	0.999	0.001	832	0.120	0.997	1.000
Madhya Pradesh	0.829	0.012	1046	1.390	0.806	0.852
Maharashtra	0.855	0.011	1004	1.327	0.833	0.877
Manipur	0.827	0.014	629	1.721	0.799	0.855
Meghalaya	0.652	0.019	581	2.893	0.615	0.689
Mizoram	0.851	0.014	619	1.697	0.823	0.879
Nagaland	0.438	0.020	639	4.518	0.399	0.477
Orissa	0.791	0.013	947	1.606	0.766	0.816
Punjab	0.667	0.018	583	2.751	0.631	0.703
Rajasthan	0.758	0.013	908	1.673	0.733	0.783
Sikkim	0.699	0.018	537	2.551	0.664	0.734
Tamil Nadu	0.986	0.004	1104	0.417	0.978	0.994
Tripura	0.831	0.014	600	1.698	0.803	0.859
Uttar Pradesh	0.642	0.014	1135	2.227	0.614	0.670
Uttaranchal	0.587	0.019	580	3.308	0.549	0.625
West Bengal	0.726	0.015	838	2.019	0.697	0.755
UT Combined	0.907	0.007	1275	0.766	0.893	0.921

Appendix 5

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Breastfeeding within 1 Hour of Birth						
Andhra Pradesh	0.272	0.016	894	5.724	0.241	0.303
Arunachal Pradesh	0.556	0.021	557	3.775	0.515	0.597
Assam	0.461	0.017	866	3.668	0.428	0.494
Bihar	0.165	0.011	1062	6.691	0.143	0.187
Chhattisgarh	0.444	0.022	527	4.860	0.402	0.486
Delhi	0.285	0.019	581	6.533	0.249	0.321
Goa	0.663	0.020	541	3.041	0.623	0.703
Gujarat	0.500	0.018	781	3.580	0.465	0.535
Haryana	0.510	0.020	631	3.902	0.471	0.549
Himachal Pradesh	0.388	0.020	558	5.276	0.348	0.428
Jammu & Kashmir	0.204	0.015	613	7.407	0.174	0.234
Jharkhand	0.156	0.014	633	9.026	0.128	0.184
Karnataka	0.382	0.018	772	4.660	0.347	0.417
Kerala	0.660	0.017	815	2.505	0.628	0.692
Madhya Pradesh	0.312	0.014	1032	4.609	0.284	0.340
Maharashtra	0.513	0.016	1000	3.080	0.482	0.544
Manipur	0.751	0.016	628	2.196	0.719	0.783
Meghalaya	0.677	0.019	574	2.836	0.639	0.715
Mizoram	0.565	0.020	607	3.481	0.526	0.604
Nagaland	0.494	0.020	628	4.036	0.455	0.533
Orissa	0.637	0.016	926	2.499	0.606	0.668
Punjab	0.164	0.015	565	9.439	0.134	0.194
Rajasthan	0.277	0.015	904	5.451	0.247	0.307
Sikkim	0.557	0.022	528	3.910	0.514	0.600
Tamil Nadu	0.391	0.015	1067	3.872	0.361	0.421
Tripura	0.071	0.012	587	16.817	0.048	0.094
Uttar Pradesh	0.156	0.011	1130	7.308	0.134	0.178
Uttaranchal	0.249	0.019	577	7.446	0.213	0.285
West Bengal	0.292	0.016	826	5.329	0.262	0.322
UT Combined	0.429	0.014	1222	3.310	0.401	0.457

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Exclusive Breast Feeding (6-9 month children)						
Andhra Pradesh	0.522	0.026	365	5.008	0.471	0.573
Arunachal Pradesh	0.486	0.032	242	6.628	0.423	0.549
Assam	0.507	0.027	337	5.335	0.454	0.560
Bihar	0.318	0.025	310	8.009	0.268	0.368
Chhattisgarh	0.474	0.039	162	8.283	0.397	0.551
Delhi	0.186	0.026	220	14.011	0.135	0.237
Goa	0.316	0.034	198	10.813	0.249	0.383
Gujarat	0.447	0.030	271	6.803	0.387	0.507
Haryana	0.343	0.030	209	8.741	0.284	0.402
Himachal Pradesh	0.590	0.037	177	6.314	0.517	0.663
Jammu & Kashmir	0.794	0.028	221	3.501	0.740	0.848
Jharkhand	0.365	0.036	188	9.852	0.295	0.435
Karnataka	0.498	0.030	274	6.040	0.439	0.557
Kerala	0.433	0.029	282	6.721	0.376	0.490
Madhya Pradesh	0.482	0.028	319	5.817	0.427	0.537
Maharashtra	0.372	0.027	332	7.148	0.320	0.424
Manipur	0.532	0.037	183	6.878	0.460	0.604
Meghalaya	0.431	0.036	190	8.383	0.360	0.502
Mizoram	0.329	0.031	234	9.474	0.268	0.390
Nagaland	0.356	0.028	271	7.958	0.300	0.412
Orissa	0.468	0.030	282	6.365	0.410	0.526
Punjab	0.433	0.041	144	9.497	0.352	0.514
Rajasthan	0.352	0.029	279	8.134	0.296	0.408
Sikkim	0.636	0.035	204	5.458	0.568	0.704
Tamil Nadu	0.204	0.021	394	10.382	0.162	0.246
Tripura	0.685	0.033	219	4.774	0.621	0.749
Uttar Pradesh	0.163	0.023	332	13.896	0.119	0.207
Uttaranchal	0.197	0.028	188	14.447	0.141	0.253
West Bengal	0.287	0.030	234	10.408	0.228	0.346
UT Combined	0.461	0.024	430	5.202	0.414	0.508

Appendix 5

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Children Full Immunized						
Andhra Pradesh	0.680	0.016	887	2.285	0.650	0.710
Arunachal Pradesh	0.248	0.019	585	7.565	0.211	0.285
Assam	0.591	0.017	875	2.817	0.558	0.624
Bihar	0.490	0.015	1055	3.137	0.460	0.520
Chhattisgarh	0.573	0.021	522	3.667	0.532	0.614
Delhi	0.715	0.019	585	2.594	0.679	0.751
Goa	0.879	0.014	534	1.622	0.851	0.907
Gujarat	0.566	0.018	786	3.111	0.531	0.601
Haryana	0.717	0.018	634	2.544	0.681	0.753
Himachal Pradesh	0.758	0.019	547	2.497	0.721	0.795
Jammu & Kashmir	0.666	0.019	620	2.799	0.629	0.703
Jharkhand	0.597	0.019	635	3.236	0.559	0.635
Karnataka	0.780	0.015	751	1.935	0.750	0.810
Kerala	0.815	0.014	760	1.697	0.788	0.842
Madhya Pradesh	0.429	0.015	1040	3.585	0.399	0.459
Maharashtra	0.786	0.013	1020	1.670	0.760	0.812
Manipur	0.519	0.020	630	3.796	0.480	0.558
Meghalaya	0.608	0.020	586	3.332	0.568	0.648
Mizoram	0.737	0.018	624	2.379	0.703	0.771
Nagaland	0.278	0.018	641	6.579	0.242	0.314
Orissa	0.595	0.016	889	2.745	0.563	0.627
Punjab	0.836	0.016	570	1.877	0.805	0.867
Rajasthan	0.538	0.017	894	3.093	0.505	0.571
Sikkim	0.853	0.013	404	1.524	0.828	0.878
Tamil Nadu	0.773	0.013	1068	1.658	0.748	0.798
Tripura	0.660	0.019	603	2.852	0.623	0.697
Uttar Pradesh	0.409	0.015	1112	3.587	0.380	0.438
Uttaranchal	0.715	0.018	576	2.531	0.680	0.750
West Bengal	0.649	0.017	827	2.558	0.616	0.682
UT Combined	0.713	0.013	1213	1.854	0.687	0.739

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Children suffering from ARI treated at any health facility						
Andhra Pradesh	0.882	0.018	308	2.053	0.847	0.917
Arunachal Pradesh	0.645	0.058	68	9.051	0.531	0.759
Assam	0.792	0.026	279	3.251	0.742	0.842
Bihar	0.829	0.016	505	1.982	0.797	0.861
Chhattisgarh	0.850	0.027	183	3.185	0.797	0.903
Delhi	0.907	0.019	230	2.143	0.869	0.945
Goa	0.970	0.014	119	1.488	0.942	0.998
Gujarat	0.844	0.019	373	2.226	0.807	0.881
Haryana	0.922	0.023	168	2.464	0.877	0.967
Himachal Pradesh	0.926	0.028	104	2.991	0.872	0.980
Jammu & Kashmir	0.837	0.023	239	2.771	0.792	0.882
Jharkhand	0.709	0.026	275	3.676	0.658	0.760
Karnataka	0.907	0.024	177	2.631	0.860	0.954
Kerala	0.942	0.019	185	2.000	0.905	0.979
Madhya Pradesh	0.758	0.023	319	3.013	0.713	0.803
Maharashtra	0.931	0.013	384	1.427	0.905	0.957
Manipur	0.778	0.038	120	4.920	0.703	0.853
Meghalaya	0.943	0.042	56	4.423	0.861	1.000
Mizoram	0.876	0.049	59	5.623	0.779	0.973
Nagaland	0.506	0.069	50	13.704	0.370	0.642
Orissa	0.794	0.022	330	2.746	0.751	0.837
Punjab	0.947	0.015	200	1.631	0.917	0.977
Rajasthan	0.899	0.018	234	2.038	0.863	0.935
Sikkim	0.912	0.026	90	2.899	0.860	0.964
Tamil Nadu	0.888	0.017	352	1.948	0.854	0.922
Tripura	0.955	0.013	325	1.331	0.930	0.980
Uttar Pradesh	0.723	0.018	541	2.556	0.687	0.759
Uttaranchal	0.832	0.027	191	3.215	0.780	0.884
West Bengal	0.778	0.022	358	2.846	0.735	0.821
UT Combined	0.958	0.010	484	1.051	0.938	0.978

Appendix 5

States	Estimate	Sampling Error	Number of Cases (Unweighted)	Relative Standard Error (%) (SE/R)	95% Confidence Interval	
	(R)	(SE)			R-1.96SE	R+1.96SE
Children suffering from diarrhoea given ORS						
Andhra Pradesh	0.359	0.032	240	8.841	0.297	0.421
Arunachal Pradesh	0.748	0.039	111	5.166	0.672	0.824
Assam	0.530	0.044	132	8.242	0.444	0.616
Bihar	0.224	0.022	384	9.701	0.181	0.267
Chhattisgarh	0.615	0.043	135	6.920	0.532	0.698
Delhi	0.702	0.026	310	3.714	0.651	0.753
Goa	0.793	0.037	120	4.695	0.720	0.866
Gujarat	0.569	0.026	380	4.497	0.519	0.619
Haryana	0.743	0.027	266	3.607	0.690	0.796
Himachal Pradesh	0.423	0.064	56	15.092	0.298	0.548
Jammu & Kashmir	0.766	0.028	222	3.615	0.712	0.820
Jharkhand	0.216	0.033	183	15.384	0.151	0.281
Karnataka	0.688	0.024	373	3.480	0.641	0.735
Kerala	0.564	0.054	82	9.661	0.457	0.671
Madhya Pradesh	0.415	0.024	420	5.880	0.367	0.463
Maharashtra	0.452	0.027	335	5.998	0.399	0.505
Manipur	0.757	0.034	180	4.449	0.691	0.823
Meghalaya	0.828	0.038	108	4.535	0.754	0.902
Mizoram	0.567	0.035	204	6.171	0.498	0.636
Nagaland	0.495	0.038	174	7.661	0.421	0.569
Orissa	0.618	0.040	152	6.471	0.540	0.696
Punjab	0.518	0.041	150	7.905	0.438	0.598
Rajasthan	0.392	0.030	274	7.673	0.333	0.451
Sikkim	0.447	0.060	70	13.443	0.329	0.565
Tamil Nadu	0.579	0.027	335	4.670	0.526	0.632
Tripura	0.722	0.033	176	4.632	0.656	0.788
Uttar Pradesh	0.143	0.020	369	14.217	0.103	0.183
Uttaranchal	0.134	0.046	86	34.194	0.044	0.224
West Bengal	0.365	0.047	116	12.742	0.274	0.456
UT Combined	0.601	0.027	321	4.542	0.547	0.655

APPENDIX 6

Comparison with DLHS3 and NFHS3

The CES 2009, DLHS3 and NFHS3 were compared and the findings are given in table below. The sample size for CES 2009 was robust enough for providing reliable coverage estimates that were comparable with other large surveys. Some important coverage estimates produced by these surveys are given below.

Table: Comparison of NFHS3, DLHS3 and CES 2009			
Characteristics	CES 2009	DLHS3	NFHS3
Geographical resolution of coverage estimates	State	District	State
Year of survey and duration of coverage estimates	1 year: Events that occurred 12 months preceding the time of data collection (Data collection from November 2009 to Jan 2010)	3 years: Events that occurred in last 3 years starting from 1st Jan 2004 (Data collection from December 2007 to December 2008)	5 years: Data related to events that occurred during the 5 year period preceding the survey (Data collection from November 2005 to August 2006)
Actual data period	2008 - 09	2004-06	2001-05
Children aged 12-23 months (n)	22,604	64,702	10,419
Pregnant women (n)	22,984 (1 yr cohort)	2,21,245 (3 yr cohort)	39,677 (5 yr cohort)

Table: Coverage estimates of key indicators according to CES 2009, DLHS3 and NFHS3 (all figures in percentage)			
Indicator	CES 2009	DLHS3	NFHS3
Immunization			
BCG coverage	86.9	86.7	78.1
DPT3 coverage	71.5	63.4	55.3
OPV3 coverage	70.4	65.6	78.2
Measles coverage	74.1	69.1	58.8
Hep-B3 coverage [∞]	58.9	NA	NA
Full Immunization	61.0	53.5	43.5
DPT Booster	41.1	NA	NA
Maternal Health			
Consumption of IFA during pregnancy ≥ 100 days	31	27.3*	23.1*
At least 1 ANC	90.4	75.2	76.5
3 or more ANC	68.7	49.8	52.0
Full ANC**	26.5	18.8	NA
Institutional Delivery	73	47	38.7
Safe Deliveries (Skilled birth Attendance)	76	52.7	46.6
Newborn Care			
Newborns checked within 24 hours of birth	65.5	44.5	NA
Initiation of breast feeding within 1 hour of birth	33.6	40.5	23.6
Child Morbidity			
Care Seeking for Diarrhea	67.8	70.6	59.8
Care Seeking for ARI	82.6	77.4	69.0
ORT or increased fluids for diarrhea	53.6	34.2#	43.0

[∞] 3 doses of Hepatitis B vaccine coverage among 12-23 months old children in 16 States/UTs where it is part of UIP

*data is for IFA consumption for ≥ 90 days (for DLHS3, see Table 4.5B of the DLHS report)

**Full ANC: Pregnant women who had at least 3 ANC checkups, 1 TT injection and ≥ 100 IFA tablets/syrup doses consumed

Data relates to ORS use only

NA – Not available



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