Baseline and Endline Household Survey for Project Sukshema in Karnataka

Technical assistance to
improve maternal, neonatal and child health (MNCH)
outcomes through the National Health Mission
in Karnataka, India

Jyoti S. Hallad

R. V. Deshpande

B. I. Pundappanavar

Javeed A. Golandaj

Population Research Centre
JSS Institute of Economic Research
Dharwad

October, 2015

PRC Report No. 164

Acknowledgement

We gratefully acknowledge Karnataka Health Promotion Trust and other partner institutes of Project Sukshema - University of Manitoba, St. John's National Academy of Health Sciences, Karuna Trust, IntraHealth for funding this project. We would like to thank Sukshema Officials especially Mr. Arin Kar, Dr. Rajaram S. Dr. Shajy Isac, Dr. B. M. Ramesh and Dr. Krishnamurthy J. for the support, cooperation and guidance we have received from them in the successful conduct of both Baseline and Endline Household Surveys.

We are thankful to the Ministry of Health and Family Welfare (Stat. Division), Government of India and Governing Body, Janata Shikshana Samiti, Dharwad for approving us to take up Baseline survey during 2012 and Endline Household Survey during 2015.

We are also grateful to all the Supervisors and Field Investigators who contributed to the successful conduct of the filed data collection. Thanks to all the Research Assistants, for their assistance while doing office editing and data entry supervision. Thanks to all the Research Staff and Administrative staff of PRC, Dharwad and KHPT Bangalore, for their needy support.

We are very much grateful to our respondents, only because of whose patience involvement, we could able to complete this survey.

The Authors

October, 2015

Content

List of Tables

Fact sheet

INDICATORS	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Coverage						
Households Covered	4881	2434	2447	4882	2439	2443
Ever married women (age 15-34 years) covered	5240	2628	2612	5154	2565	2589
Aware of Government schemes (%)						
JSSK	NA	NA	NA	12.6	11.5	13.2
Janani Suraksha Yojana	60.9	62.7	59.9	71.0	69.6	71.8
Prasuti Araike	44.4	45.5	43.8	47.5	46.8	48.0
Madilu Kit	69.6	68.1	70.4	78.5	77.2	79.3
Thayi Bhagya	8.1	6.7	8.8	9.0	7.4	9.9
Balasanjeevini	3.1	2.7	3.3	15.2	13.6	16.2
Aware of existence of VHSNC (%)	8.0	6.5	8.8	15.8	14.9	16.3
Never contacted health personnel (%)						
ASHA	28.7	24.6	30.7	25.4	25.0	25.6
ANM	26.0	21.9	28.1	21.1	19.0	22.3
AWW	30.1	25.6	32.4	23.0	20.2	24.7
Women received MCH-related message (%)						
by ASHA	37.4	40.8	35.7	53.4	54.7	52.5
by ANM	46.4	50.3	44.4	49.1	53.0	46.8
by AWWs	47.3	52.0	44.9	55.7	57.9	54.4
Women received supplementary nutrition from AWC (%)	66.8	69.5	65.2	81.6	84.4	79.9
ASHA accompanied while going for delivery (%)	37.7	39.1	36.9	49.0	55.2	45.3
Morbidity (%)						
Experienced any pregnancy complications	54.2	50.5	56.2	46.6	45.1	47.6
Experienced any delivery complications	29.4	27.8	30.3	25.8	25.2	26.1
Experienced any postpartum complications	10.4	12.8	9.1	5.7	6.3	5.3
Experienced any newborn complications	13.0	13.9	12.5	11.7	11.6	11.9
Children experienced Diarrhea/cough with fever	39.7	34.1	42.8	38.6	34.8	40.9

INDICATORS	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Fertility and Mortality						
TFR	2.80	2.98	2.60	2.69	2.83	2.53
Abortion Rate (per 1000 women)	16	14	17	17	14	20
Crude death rate	8.0	7.4	8.6	8.2	7.7	8.7
Neonatal Mortality	41	45	36	30.4	35.7	24.4
Infant Mortality	53.5	54.7	52.0	43.5	46.2	40.5
Antenatal Care and Delivery (%)						
Got pregnancy confirmation test	89.5	85.7	91.6	94.4	93.1	95.3
Registered pregnancy	87.0	87.2	86.9	92.8	93.6	92.3
Received at least one ANC check up	92.2	91.1	92.9	95.1	94.4	95.5
Received 100+ IFA tablets	19.6	17.0	21.0	27.3	24.0	29.4
Not received any IFA tablets	18.9	20.5	17.9	15.8	16.0	15.7
Home delivery	26.2	30.4	23.8	17.7	22.1	14.8
Post Natal Care and Breast feeding (%)						
Received PNC care after delivery	52.9	53.1	52.8	79.6	77.3	81.0
Fed colostrum	75.3	75.4	75.3	86.6	85.0	87.6
Initiated breastfeeding within one hour	56.8	53.3	58.7	53.1	55.1	51.7
Did exclusive breast feeding for 6 months	28.8	27.8	29.4	23.5	22.9	23.9
Immunisation (%)						
Women having Immunisation card	43.3	42.2	43.9	54.0	51.0	55.9
Children aged 12-23 months fully immunized	71.8	74.6	70.2	84.3	81.9	86.1
Female Sterilization	40.4	37.5	41.8	44.8	45.9	44.1
Expenditure						
Women received free MNCH services (%)						
ANC	9.1	10.2	8.4	7.6	11.6	5.1
Delivery	28.5	31.7	26.7	23.2	28.8	19.6
PNC	16.9	18.3	16.2	43.8	45.6	42.8
Average Expenditure incurred in INR						
For ANC	1809	1561	2083	3421	2784	4089
For Delivery	4547	3821	5304	6656	5377	8002
For PNC	917	899	937	550	465	644
For diarrhoea/cough with fever among children	745	695	798	1125	981	1264
Incentives (%)						
Women received incentives for delivery care	32.8	34.7	31.8	34.4	34.2	34.5
Women received incentives for sterilization	76.4	80.5	74.4	73.7	81.0	69.2

Executive Summary

At the instance of Karnataka Health Promotion Trust, Bangalore a Baseline as well as an Endline Household Survey have been conducted by the Population Research Centre, JSS Institute of Economic Research, Dharwad, for the project 'Sukshema' with the specific objective as to measure and document various Baseline parameters and to compare them with Endline parameters relating to coverage and utilization of maternal, neo-natal and child health service. The field data collection was carried out covering around 5000 households in 167 villages of 8 districts of North Karnataka (Bidar, Gulbarga, Yadgir, Bagalkot, Bijapur, Bellary, Raichur and Koppal) during 16th March to 3rd June, 2012 for Baseline and after 3 years i.e., 1st April to 21st June, 2015 for Endline survey.

Coverage of households and eligible women

In both the surveys, around 98% of the households and 83% of eligible women were interviewed. Altogether household information was collected from 4881 and 4882 households, eligible women interview was done with 5240 and 5154 eligible women during baseline and endline, respectively covering equal proportion of SC/ST. Here eligible women were defined as ever married women between the age group 15-34 years, both usual residents and visitors who stayed in the interviewed households the night before the survey. Around 90% of the households were belonging to Hindu and around 80% had BPL Cards.

Exposure to Mass Media and Interaction with Frontline Health Workers

Over a period of 3 years, it is observed that proportion of women exposed to mass media like television and newspapers has increased. Contact with frontline Workers like ASHA, ANM and AWW and frequency of meeting them also has increased significantly. More than 50% of the women had received one or the other MCH related messages from frontline Workers. Among the 3 frontline Workers, contact with ASHA and AWW is more frequent compared to ANM. Mostly frontline Workers provide information on ANC, immunization and nutrition and rarely give information on danger signs during pregnancy, delivery and postnatal period which need a special attention.

Fertility and Mortality

Total Fertility Rate is found to decrease in the project area from 2.80 to 2.69 children per woman. The decrease is more prominent among SC/ST women from 2.98 to 2.83 children per woman. However, still more than 20% of the births occur during teenage which needs the attention of policy makers and programmers. Similarly, not much decline has been observed in

the 3rd or higher order births especially among SC/ST and low economic groups. In addition, births with short birth intervals also have not changed in the project area. Hence, to achieve the targeted total fertility rate, one has to concentrate on reducing higher order births and to increase the child spacing especially among socio-economically deprived groups.

Though, there is not much change in the Crude Death Rate in the project area, neo-natal mortality and infant mortality has declined significantly. Neo-natal mortality rate has decreased from 41 to 30 whereas infant mortality rate has decreased from 54 to 44 for 1000 live births. But, still the early childhood mortality is significantly high among SC/ST category.

Morbidity and Treatment Seeking Behavior

Proportion of women experiencing complications during pregnancy, during delivery and during postpartum period has reduced from 2012 to 2015 and a slight decrease has been observed in the experience of newborn complications and childhood diseases between the two rounds of surveys. Reduction in the complications during pregnancy and delivery and during childhood is a positive trend. Whenever women experience any complications during pregnancy, delivery or postpartum period, they are more likely to visit private facilities. The same trend has been observed even for getting the treatment for newborn complications or childhood diseases.

Antenatal Care

A remarkable change has been observed in getting the ANC services in terms of undergoing urine test for confirmation of pregnancy, registering pregnancy especially at Sub-Centres, issue of a Thayi Card at the time of registration and early registration between Baseline and Endline surveys. All these parameters relating to ANC services were statistically significant between two rounds. However, non-SC/ST women are found to get quality ANC services compared to their counterparts. Proportion of women who had received different physical examinations like measuring height, weight, BP, fetal heart rate or examination of abdomen or getting blood/urine test has increased from Baseline to Endline. Self-reporting of consumption of IFA also shows increasing trend.

Delivery Care

Over a period of 3 years, institutional deliveries have increased remarkably as proportion of home deliveries has decreased from 26% to 18%. But still, home deliveries are comparatively more among SC/ST group and in Raichur and Bellary districts. Among the institutional deliveries, proportion of deliveries at Taluka hospital and District hospital has increased. However, contribution of private facilities in conducting deliveries also has increased from 19 to 25%. Proportion of C- section deliveries also has increased slightly especially in Taluka hospitals. Though, reduction has been observed in early discharge after the delivery still 30% of the

women had got discharged from the hospital after delivery; the reduction is more prominent when the delivery is normal and if it happens at a PHC.

Postnatal Care

Woman getting postnatal checkup after delivery has increased from 53 to 80%. Similarly, though PNC checkup on 3rd day and 7th day of delivery has increased but the changing rates are very slow. Mostly PNC checkup takes place at private facilities and PHCs. PNC services like measuring BP, examination of breast, abdomen and lochia and newborn services like checking for urine and stool passing, respiration, temperature and jaundice also has increased by 4 times. A significant increase has been observed in the proportion of children weighed soon after the birth and who were fed with colostrum. However, no improvement has been observed in early initiation of breastfeeding and maintaining an exclusive breast feeding up to 6 months.

Child Immunization

Significant improvement has been observed in issue of Thayi Card / Immunization Card and women tend to preserve it. Usually, children get birth doses at the place of birth and subsequent doses of immunization are provided at the nearby facilities like Anganawadi Centres, PHCs or Sub-Centres. The dropout rate from birth doses to measles has reduced in Endline and proportion receiving full immunization has increased.

Family planning

Uptake of female sterilization has increased whereas change in the usage of spacing methods is marginal. Usually sterilization services are obtained from TH and PHC.

Out of pocket spending for MCH services

Out of pocket spending has increased from Rs. 1809 to Rs. 3421 for getting ANC services, from Rs. 4547 to Rs. 6656 for getting delivery services from Baseline to Endline, whereas that of getting PNC services has reduced from Rs. 917 to Rs. 550. Total expenditure for getting all the 3 MCH services is estimated to be Rs. 9831 during Endline which was Rs. 7185 during Baseline. Expenditure is found to be comparatively high among Non-SC/ST women and among high wealth index women. Only 8 percent and 23 percent of the women get completely costless ANC and delivery services respectively mainly because they are compelled to visit private facilities to get ultrasound and towards transportation to reach to the facility and back home. Cost of MCH services are very high in private facilities especially when the delivery is C-Section.

Summary and Implications

1. *The Neonatal Mortality Rate in the rural areas of the 8 northern Karnataka districts where project Sukshema is working is still about 30% more than the estimate available for the rural*

areas of the state as a whole. However, both, neonatal and infant mortality have declined significantly in the project area during the last three years. The rates are still comparatively higher among the SC/ST group. Hence it is necessary to continue the attention to achieve the target of reducing the neonatal mortality to 21 per 1000 live births from the current estimated levels of 30 per 1000 live births in these districts.

2. *During the three years preceding the survey, the proportion of home deliveries has reduced from 26% to 18 % in the project districts. However still a higher proportion of home deliveries occurring in the region may contribute probably to the high neonatal mortality. Comparatively home deliveries are reported more among SC/ST groups, poor households, women at 3rd or higher order pregnancies.*

3. *Extent of postnatal care received by the women who delivered in the past 3 years has improved in the project area significantly from 50% to 80%. However, similar trend has not been observed for the 3rd day and 7th day PNC check-ups. Though slight, some improvement is observed in the proportion of mothers and newborns staying within the facility for the full 48 hours after delivery. This, along with increase in the institutional deliveries, might have improved the PNC care. Attention is still needed to educate the women to stay at the facility atleast for 48 hours, more so for SC/ST women and who deliver at PHCs.*

4. *Quality of PNC for both, mothers and newborns has increased noticeably. Proportion of mothers reported BP measurement and examination of breast and abdomen has increased from one-third to around two-thirds during the project period. The provision of newborn care which was particularly poor during baseline also has shown significant improvement during the project period.*

5. *The quality of ANC services has improved in the project area in terms of its all components like getting pregnancy confirmation test, registration of pregnancy, first trimester registration, women receiving at least 3 ANC check-ups and essential diagnostic tests. Counselling or advice component during ANC check-up also has improved though not in the similar rate. Though IFA distribution has not changed much, consumption of IFA is towards a promising direction. Utilization of HSCs has increased for pregnancy registration.*

6. *Substantial improvement is observed in the quality of interaction between the FLWs and the beneficiaries with regard to doing pregnancy registration, ANC check-up, delivery and PNC check-ups. Counselling and advice during ANC and PNC visits, also has improved.*

7. *Third or higher order births have not declined during the 3 years period and they are comparatively more among SC/ST, low wealth index households in all the 8 districts. Similarly among the 2nd and higher order births, proportion of children born within 24 months of the previous birth, also has not reduced. Use of spacing methods has not improved. Still one –fifth of the births occur to teenage mothers.*

8. *The cost of getting ANC and delivery services has increased by 1.5 times whereas that for getting PNC services has reduced. Quite a large proportion of women do not get "total free of cost" MCH services. Since accessing private facilities during complications and for receiving specialty services is the main cause of increase in the cost. Strengthening the same at government facilities with attention to quality of care can reduce this burden.*

9. *Issue of Thayi card/Immunisation card has improved in the project area. Full immunization coverage rate in the region has increased from 70 % to 86% and some special attention is needed for children of low economic status.*

10. *Though knowledge on government health schemes and registration under such schemes has increased, full utilization of the financial health schemes is not taking place in the region.*

Chapter 1

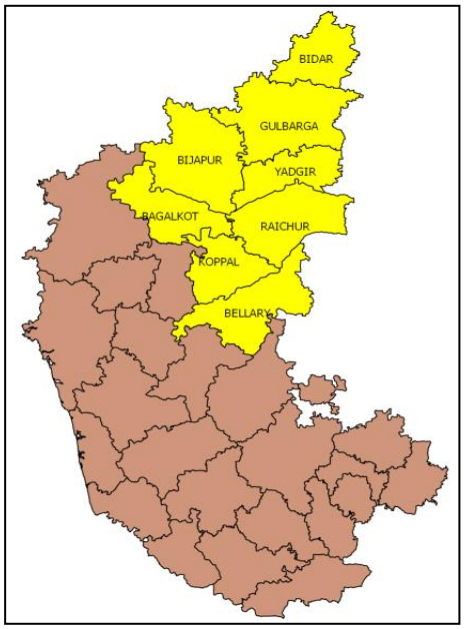
Introduction

1.1 Background about the project – MNCH

The Karnataka Health Promotion Trust (KHPT), Bengaluru and its consortium of partners has implemented a project called ***Sukshema*** in eight districts of North Karnataka namely Bidar, Gulbarga, Bagalkot, Bijapur, Bellary, Raichur, Yadgir and Koppal. Since these districts have weaker health infrastructure and lags behind in many maternal, neonatal and child health indicators (MNCH), the Sukshema project aimed to support Government of Karnataka to improve maternal, neonatal and child health outcomes in these districts through development and adoption of effective operational and health system approaches within the National Health Mission (NHM). The key objectives of the project are:

- Enable expanded **availability** and accessibility of critical MNCH interventions for rural population.
- Enable improvement in the **quality** of critical MNCH services for rural population.
- Enable expanded **utilization** and **coverage** of critical MNCH services for rural population.
- Facilitate identification and consistent **adoption** of best practices and innovations arising from the project at the state and national levels.

Figure 1: Sukshema project districts



To achieve the above objectives under the project, many interventions have been adopted at facility level as well as at community level. The important among them include; integration of maternal and newborn management tool for ASHAs to improve identification and actions for postnatal danger signs, enumeration and tracking tools and methods for ASHAs to improve coverage, materials for ASHAs to use with families to influence awareness and practice, onsite mentoring for improved clinical care and service delivery and community monitoring tools for VHSNCs and ARSs to strengthen accountability. The interventions were implemented in the project districts (Yellow shaded in the map) during June 2012- March 2015 with collaborative agencies including

University of Manitoba, Winnipeg, Canada; St. Johns National Academy of Health Sciences, Bengaluru; Karuna trust, Bengaluru; and Intra Health International, USA using the existing NHM infrastructure and KHPT shouldered the overall responsibility of executing the project.

1.2 MNCH Household Survey - Baseline and Endline

At the instance of KHPT, the Population Research Centre, Dharwad conducted a Baseline Household survey in the project districts just before the start of interventions to assess the Baseline parameters related to maternal, neonatal and child health services. The Baseline survey was carried out mainly to help to implement the project effectively, using survey outcomes and also to help to assess the success of the project by comparing with outcomes of Endline survey. The specific objectives of the Baseline survey were;

- To estimate the neonatal and infant mortality by poverty levels
- To estimate the levels of maternal, neonatal and infant morbidity by poverty levels and
- To measure the utilization of MNCH services by source and poverty levels.

Three years later as the project period was over, as per the invitation of KHPT, the Population Research Centre, Dharwad conducted an Endline survey to assess the impact of project interventions on maternal, neonatal and child health services that were assessed in the Baseline survey. The methodology and sample design adopted in both Baseline and Endline surveys are same in order to facilitate comparative analysis and to see an identifiable impact of the project on MNCH indicators.

Objectives

Endline survey aims to assess the changes in the following in comparison with the situation of the Baseline survey. The specific objectives of Endline survey are:

1. To assess the changes in neonatal and infant mortality by poverty levels
2. To assess the changes in maternal, neonatal and infant morbidity by poverty levels
3. To understand the changes in utilization of MNCH services by source and poverty levels

1.3 Broad areas covered in the Household surveys

The topics covered in both Baseline and Endline surveys are same, except that the former covered total cost incurred for ANC, Delivery and PNC, the later survey covered item-wise cost incurred i.e. cost incurred towards consultation, medicine, diagnostics, room rent, transportation and tips given to the staff.

The broad areas covered in both the surveys include;

- Background characteristics of usual residents
    - Name, age, relation, marital status, education, occupation
- Socio-Economic characteristics of Household
    - Religion, caste, Family size
    - Water supply, Toilet facility, Fuel used
    - Possession of valuable/material goods
    - Own house/rent, land owning, Possession of animals
    - Family income, source of income
    - BPL card, Health insurance
- Deaths in the past 3 years - age, sex and cause

- Ever married women characteristics
    - Age, marital status, education, occupation (self and spouse)
- Age at marriage and consummation of marriage

- Birth history- Live births, still births, Induced and spontaneous abortions
- Births during previous 3 years
    - Antenatal care services by source and cost: Registration, TT, IFA, Number of ANC checkups,
    - Complications during pregnancy
    - Place of delivery and cost, JSY benefits
    - Complications during delivery, Type of delivery, C-sections
    - PNC services by source and cost
    - Initiation of breastfeeding, Exclusive breastfeeding
    - Management of ARI and diarrhea
    - Immunizations by source and cost
- Current contraceptive use
- Infant and child morbidity and treatment patterns, by source and cost

1.4 Methodology

The methodology and sample design adopted in both Baseline and Endline survey are same and are explained in detail below.

1.4.1 Study area

The Endline survey was conducted in the same eight project districts of North Karnataka namely Bidar, Gulbarga, Bagalkot, Bijapur, Bellary, Raichur, Yadgir and Koppal where Baseline survey was carried out.

1.4.2 Sampling procedure and sample size

The target sample size for both the surveys was 5000 ever married women. An Ever married woman (currently married, divorced, separated, devadasi, deserted and widowed) in the age group 15-34, who is either usual resident of the interviewed household or a visitor who has stayed in that household previous night, was considered as an eligible woman in both the surveys. The reason for considering women aged 15-34 as eligible instead of conventional age of 15-49 was to cover maximum number of births with minimum number of interviews as large scale field studies such as DLHS and NFHS showed that nearly 97 percent of live births/still births occurred during the previous three years belongs to women aged 15-34. The study adopted systematic stratified sampling with two stages viz; selection of villages and selection of households.

Selection of villages: It was decided to cover the targeted households from 167 villages or primary sampling units (PSUs). In the first stage, 167 PSUs were selected from all the villages of the project districts using probability proportion to size (PPS) with district and taluka as strata (5190 villages as per census 2001 for Baseline survey and 5177 villages as per census 2011 for Endline survey). Size of the village and proportion of SC/ST population was considered for stratification (implicit stratification).

Selection of households: In the second stage, 30 Households were selected from each selected PSU/ village, using systematic sampling method with equal probability and without replacement.

In all, around 5000 households were listed. All ever married women between the age group 15-34 years in the selected households were interviewed further.

1.5 House listing

In each PSU, house listing was done first. Depending upon the size of the village and number of SC/ST households, either a complete listing was done or 2 segments were selected randomly for house listing. If a village has less than 200 SC/ST households, all households were listed and if a village has more than 200 SC/ST households, it was segmented so that each segment has around 150 households and one segment was selected randomly. The listing was done in the selected segment only. Similar procedure was adopted for listing of Non SC/ST households also. The list of SC/ST households and non- SC/ST households was prepared separately for each PSU and these lists were used as sampling frame for the second stage of selection i.e. households. Using these lists, in each PSU, 30 households - 15 SC/ST households and 15 non-SC/ST households with at least one ever married woman between 15-34 years were selected. The oversampling of SC/ST households was mainly to be able to measure health service utilization and health outcome differentials by poverty levels. Using this methodology, 4881 households in Baseline and 4882 households in Endline survey were interviewed.

1.6 Weights

As mentioned earlier, the sample design adopted in the survey is not self-weighted. In the survey, SC/STs are selected on par with the Non-SC/STs though former constitutes only about one-third of the population indicating that SC/STs are oversampled. To make sample representative of the population, proper weights have been given and analysis has been presented accordingly in the following chapters.

To adjust for the over sampled SC/ST population in the survey and represent the population parameters in terms of size, two kinds of weights are generated. One, household weight for estimating household level indicators, like, proportion of households possessing BPL card, and the second, women's weight for estimating indicators, like, proportion of women who received full ANC services.

Calculation of Sampling Weights

The domain sampling fraction (f) (i.e., the probability of selecting an ever-married woman in age group of 15-34 in the rural area of eight project districts), is computed as:

$$f = n/N$$

where,

n = number of ever-married rural women (15-34) to be interviewed (after adjusting upward to account for non-response and other loss), and

N = projected rural population of ever-married women (15-34) in the eight districts in March 2012

The probability of selecting i^{th} PSU from the rural sampling frame of eight districts was computed as:

$$f_{1} = \frac{a * H_i}{\sum H_i}, \quad i = 1 \text{ to } 167$$

where

a = total number of rural PSUs selected in eight project districts

H_i = number of households in the i^{th} PSU, and

$\sum H_i$ = total number of rural households in eight districts

The probability of selecting a segment from the segmented SC/ST or Non-SC/ST segment is computed as:

f_2 = 1 / (total number of segments created in the SC/ST or Non-SC/ST segment)

The value of f_2 is **one** for un-segmented segments of SC/ST and Non-SC/ST

The probability of selecting a household with ever married woman in the age group of 15-34 from the selected segment in each sampling domain:

$$f_{3} = \frac{15}{H^{i}s}, \quad s \text{ is concerned SC/ST or Non SC/ST segment}$$

where,

15= number of households assigned to each of SC/ST and Non-SC/ST segments per PSUs (all households if less than 15 households in the selected segment of the SC/ST or Non-SC/ST segments or the un-segmented)

H^i_s = number of households with eligible woman at the selected segment in each sampling domain in the strata of the i^{th} PSU

Thus, the overall probability of selecting a household with eligible woman from the i^{th} PSU for the SC/ST or Non-SC/ST segment is computed as:

$$f^i_s = \frac{f}{(f_{1*} f_{2*} f_3)}$$

The non-normalised household weight in i^{th} PSU for the SC/ST and Non-SC/ST segment is computed as:

$$RHW^i_s = \frac{f^i_s}{HR^i_s}$$

where,

HR^i_s = is the household response rate of the SC/ST and Non-SC/ST strata in i^{th} sampled PSU

Finally, the **normalized household weight** for the SC/ST and Non-SC/ST segment is computed as:

$$\boldsymbol{HW^i_s} = \frac{RHW^i_s * \sum h^i_s}{\sum h^i_s * RHW^i_s}$$

where,

h^i_s = number of households interviewed in i^{th} PSU of SC/ST and Non-SC/ST segment

The probability of selecting an **eligible woman** from the strata in the i^{th} PSU is computed as:

$$f^i_s = \frac{f}{(f_{1*} f_{2*} f_3)}$$

The non-normalized women's weight for the SC/ST or Non-SC/ST strata is computed as:

$$RWW^{i}s = \frac{f^{i}s}{WR^{i}s^{*} HR^{i}s}$$

where,

$WR^{i}s$ = is the women's response rate of the SC/ST and Non-SC/ST strata in i^{th} sampled PSU

Finally, the **normalized women's weight** for the SC/ST and Non-SC/ST strata is computed as:

$$\boldsymbol{WW^{i}s} = \frac{RWW^{i}s * \sum EW^{i}s}{\sum EW^{i}s * RWW^{i}s}$$

where,

$EW^{i}s$ = number of women interviewed in i^{th} PSU of SC/ST and Non-SC/ST segment

1.7 Field data collection

For both Baseline and Endline surveys, one week in-house elaborate training including special guest lectures, demonstration interviews, mock interviews, field practice was provided jointly by PRC and KHPT staff for the 10 percent extra field staff at PRC, Dharwad. The training was during 27th February to 5th March, 2012 for Baseline and for the Endline survey it was between 26th and 31st March 2015. Final selection of field staff was done based on their performance in the training.

For the field data collection, a separate team was formed for each district. Thus in all, 8 teams were formed. The field data collection work was initiated in 4 districts in the first phase and remaining 4 districts were covered during the second phase. Male Investigators did mapping and listing work along with interview for the HH questionnaire and Female investigators interviewed the enumerated eligible women with women questionnaire in Baseline. Whereas in Endline, both Household and Eligible women interviews were done by Female Investigators only and Male Investigators did only the Mapping and Listing task. The field data collection was done at the rate of 3 days for one PSU per team and it was during 6th March to 3rd June 2012 for Baseline Survey and Endline survey data collection was done during 1st April to 21st June, 2015. A female Field Editor did the editing of all the filled-in questionnaires.

Each team was provided with reasonable accommodation, separately for male and female investigators. Each team was provided with one vehicle at their disposal with extra money to the supervisor to meet out the exigencies.

Research Assistants/Office Editors used to receive the questionnaire bundles from the field and did the office editing of each and every questionnaire and assign the schedules to the 4 Data Entry Operators. Obtaining high quality of data was the paramount importance in both the surveys. For this purpose, Project Director, Project Coordinator and Assistant Project Coordinators from the Centre monitored and supervised field data collection from time to time. During their visit, they back checked, spot checked and observed few interviews and provided feed back to the investigators. Further, since first few days of the field work were crucial, meetings were organized for a group of 4 teams, where threadbare review of the work was done by both PRC and KHPT Officials. The problems/doubts raised by the investigators were solved and suggestions to further improve the quality of work were provided.

1.8 Data Processing

Data processing work for both Baseline and Endline survey was done at PRC, Dharwad. Data Processing Coordinator and two Office Editors were recruited. Office Editors examined every completed questionnaire received from the field and checked for skip sequences, missing information, blanks in response codes and internal consistencies. If found serious inconsistencies/gaps in the questionnaire, it was referred to the concerned Investigator and got corrected otherwise resolved on the basis of existing information. Four Data Entry Operators were recruited for computerization of filled-in questionnaires and were given three days training. The data was entered using CSPro-5.0 software. To minimize the data entry errors, double entry of all the questionnaires was done. The data processing was completed within a period of 3 months.

Data analysis was done using CSPro, STATA and SPSS software packages.

1.9 Study Tools

Two types of questionnaires - Household questionnaire and Ever Married Woman questionnaire were used in Baseline and Endline surveys. The household questionnaire was administered in the

selected household to the head of the household or any responsible resident adult of the household.

The household questionnaire gathered information on details of each member in the household such as name, relationship to the head, age, sex, marital status, education and occupation. This information was also used for identification of eligible women. The household questionnaire also collected information required to construct wealth index such as source of drinking water, type of toilet facility, type of lighting, fuel for cooking, type of house, ownership of specific household items, income and ownership of livestock. Deaths occurred in the household during last 3 years with details on age, sex and cause of death were also collected.

Ever married woman questionnaire

All the ever married women in the age group 15-34 years, enumerated in the selected households, were interviewed using pre-tested woman questionnaire. From each of the ever married woman, the information on the following maternal and child health issues were collected.

- Marriage and birth history
- Current contraceptive use
- For the births in the past 3 years
    - Antenatal care services by source and cost
    - Complications during pregnancy
    - Place of delivery and cost
    - Complications during delivery, C-section deliveries
    - PNC services by source and cost
    - Immunisation by source and cost
    - Infant and child morbidity and treatment patterns by source and cost

Chapter 2

Coverage and Background Characteristics

2.1 Coverage of Households and Eligible women

Table 2.1 shows the number of households and eligible women listed, interviewed and response rates by district and sampling domain (SC/ST and non-SC/ST) for Baseline and Endline survey. Coverage of households and eligible women in both the surveys was quite good. Of the households listed, the household response rate was more than 98 percent in both Baseline and Endline survey. Household coverage was better among SC/ST in Endline survey, and was almost same (98 percent) for non-SC/ST in Baseline and Endline survey. Among the identified eligible women in the interviewed households, interviews were completed for about 83 percent of eligible women in both the surveys. Coverage of eligible women among SC/ST was better in Endline than in Baseline survey but coverage of non-SC/ST women was better in Baseline than in Endline survey. Household coverage was found to be better (99 percent) in Raichur district and coverage of eligible women was better (85 percent) in Bijapur district.

2.2 Background characteristics of households and women

Background characteristics of interviewed households and eligible women are presented in Table 2.2. Ninety percent of interviewed household and eligible women belonged to Hindus, about 9 percent were Muslims and the remaining belonged to Christian and other religion. While increase in proportion of HH and EMW interviewed among SCs, STs and OBCs was observed in Endline survey compared to Baseline, substantial decline in coverage was observed among other (general) category (from 20 percent to 6 percent). Eighty percent of the households reported having a BPL card in Endline survey compared to 62 percent in Baseline. As expected, proportion having a BPL card was more among SC/ST compared to non-SC/ST. About half of the interviewed households comprise of 5-7 members and nearly one-sixth comprise of 8-10 members. While proportion of households having less than 10 members remained same, the households with more than 10 members have reduced between the surveys and this was observed more among SC/ST than among non-SC/ST households.

Table 2.1: Coverage of Households and Eligible women by district and sampling domain

District	All			SC/ST			Non SC/ST		
	Listed	Interviewed	Response rate	Listed	Interviewed	Response rate	Listed	Interviewed	Response rate
Baseline									
Households									
ALL	4970	4881	98.2	2488	2434	97.8	2482	2447	98.6
Bagalkot	630	624	99.0	315	311	98.7	315	313	99.4
Bijapur	717	693	96.7	357	343	96.1	360	350	97.2
Bidar	600	594	99.0	300	295	98.3	300	299	99.7
Raichur	652	648	99.4	328	325	99.1	324	323	99.7
Koppal	502	495	98.6	247	243	98.4	255	252	98.8
Bellary	720	691	96.0	360	343	95.3	360	348	96.7
Gulbarga	761	752	98.8	386	383	99.2	375	369	98.4
Yadgir	388	384	99.0	195	191	97.9	193	193	100.0
Eligible women									
ALL	6278	5240	83.5	3139	2628	83.7	3139	2612	83.2
Bagalkot	820	692	84.4	417	349	83.7	403	343	85.1
Bijapur	885	784	88.6	449	397	88.4	436	387	88.8
Bidar	721	605	83.9	349	297	85.1	372	308	82.8
Raichur	849	716	84.3	425	364	85.6	424	352	83.0
Koppal	642	530	82.6	313	266	85.0	329	264	80.2
Bellary	872	698	80.0	433	347	80.1	439	351	80.0
Gulbarga	964	797	82.7	497	407	81.9	467	390	83.5
Yadgir	525	418	79.6	256	201	78.5	269	217	80.7
Endline									
Households									
ALL	4952	4882	98.6	2471	2439	98.7	2481	2443	98.5
Bagalkot	592	578	97.6	292	285	97.6	300	293	97.7
Bijapur	744	729	98.0	369	361	97.8	375	368	98.1
Bidar	570	561	98.4	285	280	98.2	285	281	98.6
Raichur	656	650	99.1	326	324	99.4	330	326	98.8
Koppal	540	537	99.4	270	268	99.3	270	269	99.6
Bellary	696	690	99.1	360	358	99.4	336	332	98.8
Gulbarga	764	757	99.1	374	374	100.0	390	383	98.2
Yadgir	390	380	97.4	195	189	96.9	195	191	97.9
Eligible women									
ALL	6185	5154	83.3	3040	2565	84.4	3145	2589	82.3
Bagalkot	726	593	81.7	355	293	82.5	371	300	80.9
Bijapur	952	809	85.0	469	403	85.9	483	406	84.1
Bidar	679	573	84.4	329	288	87.5	350	285	81.4
Raichur	834	672	80.6	392	312	79.6	442	360	81.4
Koppal	705	604	85.7	353	304	86.1	352	300	85.2
Bellary	873	711	81.4	450	374	83.1	423	337	79.7
Gulbarga	924	784	84.8	453	385	85.0	471	399	84.7
Yadgir	492	408	82.9	239	206	86.2	253	202	79.8

Table 2.2: Percent distribution of interviewed households and eligible women according to selected background characteristics and sampling domain

Particulars	Baseline						Endline					
	Households			Eligible women			Households			Eligible women		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number	4881	2434	2447	5240	2628	2612	4882	2439	2443	5154	2565	2589
Religion												
Hindu	90.0	98.8	85.6	90.3	98.8	85.9	90.8	98.8	86.0	90.9	98.8	86.1
Muslim	9.3	0.0	13.9	9.0	0.0	13.6	8.5	0.0	13.7	8.5	0.0	13.6
Christian	0.6	1.0	0.4	0.5	0.9	0.3	0.6	1.0	0.3	0.5	1.0	0.3
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.0
Caste												
Scheduled Caste	24.1	72.4	0.0	24.3	71.9	0.0	25.7	67.4	0.0	24.9	66.6	0.0
Scheduled Tribe	9.2	27.6	0.0	9.5	28.0	0.0	12.5	32.6	0.0	12.5	33.4	0.0
OBC	47.1	0.0	70.5	46.6	0.0	70.4	56.2	0.0	91.0	56.9	0.0	90.9
Other (General)	19.6	0.0	29.4	19.6	0.0	29.6	5.6	0.0	9.0	5.7	0.0	9.1
Having BPL card												
Has BPL card	62.4	74.1	56.6	62.9	74.8	56.8	79.7	83.9	77.2	80.0	83.9	77.7
No BPL card	37.5	25.9	43.3	37.0	25.1	43.1	20.0	15.8	22.6	19.7	15.7	22.0
Missing	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.2	0.3	0.4	0.2
Household size												
Less than 5	23.3	23.0	23.4	20.1	19.3	20.4	23.0	20.1	24.9	19.7	17.0	21.3
5-7	48.8	47.2	49.6	42.4	40.1	43.5	49.9	53.3	47.8	44.8	47.9	42.9
8-10	16.6	17.1	16.4	19.0	18.9	19.1	17.3	17.1	17.5	19.7	19.2	20.0
More than 10	11.3	12.7	10.6	18.5	21.6	17.0	9.7	9.5	9.7	15.8	15.9	15.8

2.3 Background characteristics of population

Age, sex and marital status are basic characteristics of population which have an important role in the study of fertility, mortality, contraceptive use etc. Table 2.3 presents the background characteristics of population covered in the survey such as residential status, age, sex and marital status. 6-7 percent of the population was visitors who had stayed previous night in the interviewed households and one percent of them had visited for delivery. Among the interviewed households, the proportion of females was higher (51 percent) compared to males (49 percent) in both the surveys.

Age distribution of household population showed that children below age 15 comprised about 38 percent of the population, 8 percent were aged 60 or more and remaining 54 percent were in the age group 15-59 years. Proportion of child population was higher among SC/ST households than among non-SC/ST and proportion of elderly population was found to be higher among non-SC/ST than SC/ST, in both the surveys. This again indicates the higher fertility among SC/STs and higher longevity among Non-SC/STs.

Marital status of all the household members aged 10 or more showed that about one-sixth were never married, about half (48 percent) were currently married, proportion widowed was about 5 percent and less than 1 percent constituted divorced, separated/deserted and devadasis. The marital status composition did not vary much between SC/ST and non-SC/ST and between Baseline and Endline survey.

Table 2.3: Percent distribution of population among the interviewed households according to selected background characteristics and sampling domain

	Baseline			Endline		
Characteristics	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number	32232	16242	15990	32055	16051	16004
Usual resident/visitor						
Usual resident	94.0	94.1	93.9	92.8	93.2	92.5
Visitor for delivery	1.5	1.3	1.6	1.1	1.1	1.2
Visitor for other purpose	4.6	4.6	4.5	6.1	5.8	6.3
Sex						
Male	48.6	49.0	48.4	48.1	48.2	48.1
Female	51.4	51.0	51.6	51.9	51.8	51.9
Age						
0-4	15.9	16.4	15.6	16.2	17.3	15.6
5-9	12.9	13.1	12.7	13.1	13.6	12.8
10-14	8.9	9.3	8.7	8.8	9.3	8.5
15-19	8.0	9.2	7.5	7.5	8.3	7.1
20-24	11.2	11.7	10.9	10.7	11.1	10.4
25-29	11.4	10.7	11.7	11.3	10.9	11.6
30-34	8.2	7.8	8.4	8.7	8.0	9.2
35-39	5.2	4.6	5.6	4.7	4.4	4.9
40-44	2.6	2.7	2.6	2.9	2.6	3.1
45-49	2.5	2.4	2.5	2.8	2.5	3.0
50-54	2.6	2.3	2.8	2.7	2.5	2.8
55-59	2.7	2.4	2.8	2.5	2.2	2.7
60-64	3.3	3.1	3.4	3.2	2.9	3.4
65-69	2.2	2.0	2.3	2.2	2.1	2.4
70 and above	2.4	2.2	2.5	2.6	2.4	2.7
Marital status (among age 10+)						
Never married	17.4	18.0	17.2	17.4	18.0	17.0
Currently married	48.0	46.7	48.7	47.2	45.1	48.5
Widowed	5.1	4.7	5.3	5.4	5.0	5.6
Divorced	0.1	0.1	0.1	0.03	0.03	0.03
Separated/Deserted	0.4	0.3	0.4	0.5	0.5	0.5
Devadasi	0.2	0.7	0.0	0.2	0.5	0.0

2.4 Background characteristics of Eligible women

Table 2.4 presents the percent distribution of eligible women by background characteristics and by sampling domain for both Baseline and Endline survey. Majority (63 percent) of the interviewed eligible women in both the surveys belonged to 20-29 age group and less than 20 percent each belonged to age 15-19 and 30-34 years. The Endline survey covered a bit higher proportion of women aged 30-34 than Baseline survey and this was more among Non-SC/ST than SC/ST. Majority (95 percent) of the eligible women were currently married and remaining constituted Devadasi, separated, deserted, divorced and widowed. The distribution of eligible women by marital status was almost same in both the surveys, Devadasi women were found only among SC/ST women.

About 9 percent of the husbands of interviewed women were less than age 25. It was observed that husbands of eligible women belonged to SC/ST were younger compared to husbands of Non-SC/ST women and same pattern was observed in Endline survey also. Forty-eight percent of eligible women were literates and among them 26 percent had completed Highschool and above during Baseline survey. It was found that SC/ST women were more likely to be illiterates (65 percent) than Non-SC/ST women (46 percent). Further, percent of SC/ST women completed Highschool and above was half of that of non-SC/ST women (15 percent versus 32 percent). Though pattern did not differ much in Endline survey, decrease in the proportion of illiterates was observed among Non-SC/ST women.

Husbands were better educated compared to interviewed women. The proportion of literates was more (66 percent) among Non-SC/ST than among SC/ST (52 percent). Though the proportion illiterates have not declined among SC/ST between surveys, slight decline (2 percent) in proportion illiterates was observed among non-SC/ST, indicating slow improvement in educational level among them.

Table 2.4: Percent distribution of interviewed eligible women according to selected background characteristics and sampling domain

Characteristics	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number	5240	2628	2612	5154	2565	2589
Age of woman						
15-19	19.7	23.6	17.7	16.9	19.0	15.7
20-24	35.1	34.3	35.6	34.4	36.3	33.2
25-29	28.5	25.8	30.0	28.8	26.2	30.3
30-34	16.6	16.3	16.7	19.9	18.5	20.8
Marital status						
Currently Married	95.1	95.0	95.2	95.0	94.3	95.4
Devadasi	0.5	1.4	0.0	0.3	0.8	0.0
Separated	1.5	1.3	1.6	1.8	1.9	1.8
Deserted	0.1	0.1	0.1	0.1	0.2	0.0
Divorced	0.2	0.1	0.2	0.1	0.1	0.2
Widowed	2.7	2.1	3.0	2.7	2.7	2.6
Age of husband *						
Less than 25	8.8	11.7	7.3	8.8	11.5	7.3
25-29	27.7	29.0	27.0	26.2	27.5	25.5
30-34	28.2	25.9	29.3	28.8	27.9	29.4
35-39	24.3	22.1	25.4	22.5	20.9	23.4
40-44	8.3	7.9	8.4	9.8	8.8	10.3
45-49	2.2	2.4	2.1	2.8	2.3	3.1
50 and above	0.4	0.5	0.4	0.8	0.9	0.7
Don't know	0.2	0.4	0.1	0.3	0.2	0.3
Education of woman						
Illiterate	52.2	65.3	45.6	51.2	65.6	42.5
Primary	4.8	4.8	4.9	3.8	4.1	3.6
Middle school	16.8	14.6	17.9	15.9	13.3	17.6
Highschool	18.6	10.7	22.7	19.7	11.9	24.3
Above SSLC	7.4	4.5	9.0	9.4	5.0	12.0
Education of husband*						
Illiterate	38.4	47.9	33.6	37.4	47.9	31.3
Primary	6.9	6.7	7.1	6.7	6.8	6.6
Middle school	16.4	15.9	16.7	14.9	13.7	15.6
High school	20.2	15.8	22.4	20.9	16.8	23.3
Above SSLC	17.7	13.4	19.9	19.7	14.3	22.8
Don't know /Missing	0.3	0.2	0.4	0.4	0.4	0.4
Occupation of woman						
Cultivation	16.7	11.7	19.2	17.5	16.6	18.0
Agri. Coolie	28.0	37.0	23.5	30.7	42.6	23.6
Non-Agri.Coolie	5.7	8.6	4.2	5.1	6.7	4.2
Business related	1.5	0.4	2.0	1.5	0.7	2.0
Salaried Employment	2.2	2.4	2.2	2.2	2.3	2.1
Household work	44.4	38.8	47.3	41.1	30.2	47.7
Other	1.4	1.1	1.6	1.8	0.8	2.4
Occupation of husband*						
Cultivation	34.6	23.9	40.0	31.9	25.5	35.7
Agri. Coolie	22.1	30.6	17.7	23.2	32.3	17.8
Non-Agri. Coolie	20.8	30.9	15.7	22.5	26.8	20.0
Business related	7.9	3.1	10.4	6.8	3.1	9.0
Salaried Employment	9.7	7.7	10.7	10.6	8.2	12.0
No work	0.8	0.8	0.9	1.2	1.6	1.0
Other	4.1	3.0	4.6	3.8	2.5	4.5

* Among currently married

Regarding occupation of women, 44 percent reported that they were not working outside for paid jobs except that of performing household work. About one-third of them were engaged in coolie and this proportion was higher (46 percent) among SC/ST than among non-SC/ST (28 percent). However, shift in the occupation patterns of women was observed between the surveys, especially among SC/ST women, from household work to coolie or cultivation, as 39 percent of SC/ST women were engaged in household work during Baseline survey and it decreased to 30 percent during Endline and proportion engaged as coolie/cultivator has increased from 57 percent to 66 percent.

One-third of the husbands of interviewed women were engaged in cultivation and this proportion was higher (40 percent) among non-SC/ST women than among SC/ST women (24 percent). Further, proportion engaged as coolie was about twice more among SC/ST women than that of non-SC/ST women (33 percent versus 62 percent). However, change in the occupational pattern of husbands was observed between Baseline and Endline surveys. The proportion engaged in cultivation, for instance, has declined from 35 percent to 32 percent and those engaged as coolie increased from 43 percent to 46 percent and this phenomenon was more among non-SC/ST men than among SC/ST men.

Chapter 3

Exposure to mass media and interaction with frontline health workers

3.1 Exposure to mass media

Mass media such as radio, television, newspapers and folk media are often used to spread messages on health issues and exposure to messages helps to improve understanding on the issues and motivate to practice. In order to know the extent of exposure, all women in the survey were asked on how often they listen to radio, watch TV, read newspaper and have seen midmedia (folk) programmes like street plays, kalajathas, hoardings etc. Table 3.1 showed that proportion of women exposed to radio declined (from 3% to 2%), women exposed for TV and newspaper increased since the Baseline survey (for watching TV- 60 % to 65 % and for reading newspaper; 8% to 12 %). Increase in exposure was observed more among non-SC/ST women compared to SC-ST women.

3.2. MCH information received through mass media

Among women those reported exposed to mass media, were asked whether they had heard/watched/read any message on issues related to mother and child health. The responses of the women are presented in table 3.2. The most common message received by the women was on child immunization followed by nutritional aspects of mother. Information on danger signs during pregnancy or delivery, use of contraception and on child care practices were received by comparatively fewer women in both the surveys. Further, proportion of women not received MCH information has increased between Baseline and Endline surveys (ex; TV- from 43 % to 58%, newspaper- from 4 % to 8 %) indicating that women were exposed to mass media but not to MCH messages.

Table 3.1: Percent distribution of women exposed to mass/mid media, according to sampling domain

	Baseline			Endline		
Mass/Mid media	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Radio						
Daily	1.2	1.1	1.2	0.8	0.6	0.9
Few days a week	0.2	0.1	0.2	0.1	0.1	0.1
Weekly	0.1	0.1	0.1	0.1	0.2	0.1
Occasionally	1.4	0.9	1.6	0.9	0.8	1.0
Never	97.1	97.8	96.8	98.1	98.4	98.0
TV						
Daily	45.8	40.4	48.6	60.9	54.3	64.9
Few days a week	3.5	3.6	3.5	5.4	5.7	5.3
Weekly	1.6	2.3	1.3	0.8	1.0	0.6
Occasionally	9.2	10.4	8.6	8.1	9.0	7.5
Never	39.8	43.3	38.1	24.8	30.0	21.6
News Paper						
Daily	1.7	0.7	2.2	2.9	0.8	4.2
Few days a week	0.4	0.1	0.6	0.9	0.3	1.2
Weekly	0.5	0.2	0.7	0.4	0.2	0.6
Occasionally	5.2	3.6	6.1	7.6	4.8	9.4
Never	92.1	95.4	90.5	88.1	93.9	84.6
Mid Media						
Street plays	2.8	1.9	3.2	5.5	5.2	5.7
Kalajathas	0.6	0.6	0.6	1.8	0.9	2.3
Health exhibition	1.3	0.7	1.6	2.3	1.8	2.6
Hoardings	20.3	18.9	21.1	31.4	27.1	34.0
Number of women	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**

Table 3.2: Percent distribution of women by type of MCH information received by mass media and category, according to sampling domain

	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Type of information	**Radio**			**TV**			**News Paper**			**Mid Media**		
Baseline												
Birth planning and emergency	0.1	0.1	0.1	2.1	1.5	2.5	0.3	0.1	0.5	0.4	0.2	0.5
Danger signs during pregnancy	0.2	0.1	0.2	1.3	0.8	1.6	0.5	0.2	0.7	0.9	0.5	1.1
Danger signs during delivery	0.1	0.0	0.1	0.9	0.5	1.0	0.3	0.3	0.3	0.6	0.3	0.8
Postnatal care	0.3	0.2	0.4	2.9	2.0	3.4	0.8	0.5	1.0	2.4	1.5	2.9
Nutrition to mother	0.9	0.7	0.9	8.4	6.6	9.3	2.1	1.1	2.6	10.2	9.0	10.8
Child Immunization	1.0	0.7	1.1	13.1	11.5	13.9	2.7	1.6	3.2	14.9	14.9	14.9
Newborn/Child care	0.5	0.3	0.5	5.7	4.2	6.5	1.0	0.2	1.4	4.5	3.9	4.8
Birth spacing	0.2	0.0	0.3	1.0	0.7	1.1	0.3	0.1	0.3	1.3	0.8	1.5
Sterilization	0.2	0.1	0.1	2.3	1.9	2.5	0.4	0.1	0.5	2.4	1.6	2.8
Govt. Schemes and incentives	0.1	0.1	0.2	0.6	0.5	0.7	0.3	0.2	0.4	1.5	1.2	1.6
Sanitation and hygiene	0.1	0.1	0.1	0.5	0.4	0.5	0.1	0.0	0.2	0.5	0.3	0.6
Other	0.0	0.0	0.1	0.5	0.5	0.5	0.2	0.1	0.2	0.9	0.6	1.0
None	1.3	1.2	1.4	42.5	41.7	43.0	3.9	2.5	4.6	4.3	3.0	5.0
Number of women	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**
Endline												
Birth planning and emergency	0.1	0.1	0.0	0.9	0.8	0.9	0.1	0.2	0.0	1.0	0.9	1.0
Danger signs during pregnancy	0.0	0.0	0.1	1.6	1.0	2.0	0.4	0.0	0.6	2.4	2.1	2.5
Danger signs during delivery	0.0	0.1	0.0	0.9	0.5	1.1	0.3	0.0	0.4	1.5	1.9	1.2
Postnatal care	0.2	0.1	0.3	3.4	2.2	4.1	1.0	0.4	1.4	5.2	4.2	5.8
Nutrition to mother	0.4	0.3	0.4	7.4	5.7	8.4	2.1	0.7	2.9	12.9	11.1	14.0
Child Immunization	0.3	0.5	0.3	10.4	8.4	11.6	2.2	1.6	2.5	21.9	18.8	23.7
Newborn/Child care	0.4	0.4	0.4	6.5	3.9	8.0	1.8	0.7	2.4	9.2	6.9	10.6
Birth spacing	0.0	0.1	0.0	1.0	0.7	1.1	0.3	0.3	0.4	1.4	1.0	1.6
Sterilization	0.0	0.0	0.0	1.1	1.0	1.2	0.3	0.2	0.4	2.9	2.9	2.9
Govt. Schemes and incentives	0.1	0.1	0.1	1.6	1.1	1.8	0.6	0.7	0.6	2.9	2.4	3.2
Sanitation and hygiene	0.1	0.0	0.1	1.4	0.9	1.7	0.3	0.2	0.5	1.9	1.1	2.4
Other	0.0	0.0	0.1	0.7	0.5	0.8	0.1	0.1	0.1	1.1	0.7	1.3
None	1.1	0.8	1.4	58.2	57.3	58.7	7.5	3.8	9.6	6.5	6.9	6.3
Number of women	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**

3.3 Contact with frontline health workers

The ASHA, ANM and Anganawadi workers (AWWs) are the frontline workers in the village and they are the first point of contact between the health care system and the community. It is also that these health workers are expected to visit the households on regular interval to enquire about the health status of household members, especially pregnant women and children, and provide necessary services/advice. In order to understand whether the women were aware of presence of ASHA, ANM and AWW in their village, how often they usually meet FLWs and whether received any information related to maternal and child health care were asked and responses are presented in table 3.3. Among the frontline workers, proportion of women who reported that they know ASHA has increased, those reported that they know ANM has decreased and women reported to know AWW remained same between the two surveys and is found to be statistically significant ($p<0.001$). Further, women met ASHA and AWW once a week or once a month increased substantially and that with ANM has decreased since Baseline survey ($p<0.001$). Further, women reported that they have met ASHA and AWW within 3 months has increased ($p<0.001$). Though proportion received MCH related message from frontline workers has increased between the surveys, messages on MCH was received more from ASHAs followed by AWWs and ANMs ($p<0.001$).

3.4. MCH information received from frontline health workers

Women who reported that they have received information on MCH from health workers were further asked on type of information received from them and responses are presented in table 3.4. It is seen that child immunization was the issue on which message was received by most of the women and proportion receiving the information has increased substantially since Baseline survey. Further, availing ANC checkups, consumption of IFA tablets and taking TT injection were other MCH issues on which information was received in the Baseline but proportion reported received these information from ANM and AWW has decreased in the Endline survey. However, proportion of women who reported that they have received message on danger signs during pregnancy, postnatal period and among newborns continued to be quite low in both the surveys.

Table 3.3: Percent distribution of women by their contact with health personnel and knowledge received on MCH, according to sampling domain

	ASHA			ANM			AWW		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Baseline									
Personally know about FLW	72.2	71.7	72.4	86.3	87.3	85.7	92.9	94.0	92.4
Frequency of meeting									
At least once in a week	9.9	11.1	9.3	8.5	9.8	7.9	13.8	15.3	13.0
At least once in a month	20.0	23.3	18.3	26.6	30.6	24.5	24.9	28.3	23.2
Once in 3 months	4.3	4.4	4.3	6.5	6.7	6.4	5.3	6.0	4.9
Occasionally	15.2	14.1	15.8	18.7	18.2	18.9	18.8	18.7	18.9
Never met	28.7	24.6	30.7	26.0	21.9	28.1	30.1	25.6	32.4
Duration since last meeting									
<=3 months	41.3	43.8	40.0	48.5	51.6	46.8	53.3	56.1	51.8
4-6 months	4.3	4.4	4.4	6.2	6.8	5.9	5.6	6.7	5.1
7+ months	3.9	4.9	3.3	5.5	7.0	4.8	3.7	5.3	3.0
Never met	28.7	24.6	30.7	26.0	21.9	28.1	30.1	25.6	32.4
Prop. of women received MCH-related message	37.4	40.8	35.7	46.4	50.3	44.4	47.3	52.0	44.9
Number of women	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**
Endline									
Personally know about FLW	83.7	84.0	83.5	80.7	82.6	79.6	94.4	93.9	94.6
Frequency of meeting									
At least once in a week	10.4	10.7	10.2	3.6	4.1	3.4	15.3	17.1	14.2
At least once in a month	26.4	25.8	26.8	23.1	24.8	22.1	27.3	26.5	27.7
Once in 3 months	7.6	8.4	7.1	7.2	7.1	7.3	6.7	8.2	5.9
Occasionally	23.2	23.4	23.1	25.7	27.6	24.5	22.0	21.9	22.1
Never met	25.4	25.0	25.6	21.1	19.0	22.3	23.0	20.2	24.7
Duration since last meeting									
<=3 months	52.8	53.7	52.3	40.9	44.1	39.0	58.8	61.3	57.3
4-6 months	7.5	7.7	7.4	8.6	8.6	8.7	7.3	6.9	7.5
7+ months	7.1	6.9	7.2	9.9	10.7	9.5	5.1	5.2	5.0
Never met	25.4	25.0	25.6	21.1	19.0	22.3	23.0	20.2	24.7
Prop. of women received MCH-related message	53.4	54.7	52.5	49.1	53.0	46.8	55.7	57.9	54.4
Number of women	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**
Personally know about FLW		***p <0.001***			***p <0.001***			***p <0.001***	
Frequency of meeting		***p <0.001***			***p <0.001***			***p <0.001***	
Duration since last meeting		***p <0.001***			***p <0.001***			***p <0.001***	
Prop. of women ever received any MCH-related message		***p <0.001***			***p <0.001***			***p <0.001***	

χ2 p values refer to ALL between Baseline and Endline survey

Table 3.4: Percent distribution of women by type of MCH information received by health personnel

Type of information	ASHA			ANM			AWW		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Baseline									
Pregnancy registration	8.5	9.3	8.1	10.5	11.8	9.9	7.7	9.0	7.1
JSY	3.7	4.1	3.5	3.2	3.6	3.0	3.1	3.5	2.8
HIV/AIDS	1.8	1.8	1.8	3.3	3.8	3.0	1.3	1.5	1.2
ANC checkups	15.5	18.0	14.1	18.8	22.6	16.8	11.3	12.8	10.4
Consumption of IFA tablets	9.1	9.8	8.8	15.6	17.7	14.6	7.6	7.1	7.8
Taking TT Injection	16.3	18.2	15.3	23.3	25.6	22.1	12.5	12.2	12.6
Nutrition	19.6	21.6	18.6	25.6	27.2	24.7	25.5	28.3	24.1
Anemia	4.0	4.7	3.6	6.6	7.5	6.2	4.7	4.4	4.8
Danger signs during preg.	0.4	0.3	0.5	1.0	1.0	1.0	0.4	0.3	0.5
Birth planning	1.1	1.1	1.1	2.2	2.4	2.1	1.2	1.3	1.1
Institutional. delivery	5.1	6.1	4.6	5.1	6.0	4.6	1.8	2.5	1.4
Postnatal checkups	1.8	2.1	1.7	2.5	2.7	2.4	1.3	1.3	1.3
Breast feeding	2.7	2.9	2.5	1.5	1.9	1.3	1.0	1.1	1.0
Keeping the baby Warm	2.6	2.2	2.7	5.4	4.9	5.7	3.8	3.7	3.9
Danger signs in PN period	0.1	0.0	0.1	0.2	0.2	0.2	0.0	0.1	0.0
Danger signs in newborns	0.4	0.3	0.5	0.7	0.8	0.7	0.5	0.5	0.5
Complementary feeding	0.3	0.1	0.4	0.9	0.8	1.0	0.5	0.6	0.4
Child immunisation	21.4	22.9	20.6	28.4	30.8	27.2	30.1	31.4	29.4
Diarrhoea	0.7	0.3	0.9	2.1	3.0	1.6	0.8	0.6	1.0
Acute respiratory disease	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Using contraceptives	0.3	0.2	0.3	0.6	0.8	0.5	0.2	0.2	0.2
Number of women	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**
Endline									
Pregnancy registration	10.7	12.5	9.7	6.0	6.7	5.6	5.3	6.5	4.5
JSY	4.8	5.0	4.6	3.7	4.2	3.4	1.9	2.1	1.9
HIV/AIDS	3.0	3.6	2.6	3.7	5.2	2.8	1.1	1.0	1.1
ANC checkups	25.1	28.4	23.1	18.3	22.9	15.6	10.6	13.6	8.7
Consumption of IFA tablets	11.0	13.6	9.6	14.1	17.7	12.0	6.3	8.0	5.3
Taking TT Injection	23.0	25.3	21.6	25.2	28.6	23.2	11.1	12.9	10.0
Nutrition	18.9	20.7	17.8	17.9	22.0	15.5	39.2	42.9	36.9
Anemia	5.3	6.4	4.6	6.4	8.0	5.5	5.2	6.4	4.5
Danger signs during preg.	1.1	1.2	1.1	1.0	1.1	0.9	0.5	0.6	0.5
Birth planning	1.2	1.3	1.1	1.6	1.7	1.6	0.7	0.7	0.8
Institutional. delivery	6.5	8.5	5.4	6.5	8.4	5.4	2.8	3.5	2.4
Postnatal checkups	4.1	4.7	3.7	3.8	4.4	3.5	1.5	1.3	1.5
Breast feeding	3.6	3.4	3.8	1.6	2.0	1.3	0.8	0.7	0.8
Keeping the baby Warm	1.5	1.7	1.4	2.7	3.4	2.3	1.2	1.1	1.3
Danger signs in PN period	0.3	0.4	0.3	0.2	0.4	0.1	0.2	0.0	0.2
Danger signs in newborns	0.3	0.4	0.2	0.4	0.6	0.4	0.3	0.3	0.3
Complementary feeding	0.5	0.7	0.4	0.7	1.1	0.4	0.7	0.8	0.7
Child immunisation	35.8	36.7	35.2	35.1	38.0	33.3	36.0	36.9	35.5
Diarrhoea	2.4	2.9	2.1	3.2	4.0	2.6	2.2	2.7	1.9
Acute respiratory disease	1.5	1.1	1.6	1.7	1.7	1.7	0.4	0.5	0.4
Using contraceptives	2.3	2.7	2.1	4.1	5.0	3.5	1.4	1.8	1.2
Number of women	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**

3.5 Reasons for not contacting health personnel

All women who had told that they had not contacted health personnel to get information related to MCH issues were asked reasons for not contacting. The responses (table 3.5) showed that "absence of ASHA in the village" was the reason and proportion of women reported this reason has increased between the surveys. While 'inconvenient time' was the reason for not contacting ANM, "not having any child going to Anganwadi" was the common reason reported for not meeting AWW in both Baseline and Endline survey. However, data presented in the table don't support the presumption that caste of health worker may influence health care delivery services, as negligible proportion (less than 2 percent) of women reported that caste of ASHA, ANM and AWW was the reason for not contacting them. No differentials are found among SC/ST and non-SC/ST in reasons for not contacting health personnel.

3.6. Person facilitated/motivated ANC registration and received supplementary nutrition

All the women who had experienced pregnancy during the last three years were asked mainly who motivated them for ANC registration. Table 3.6 shows that proportion of women reported that ASHA facilitated them for ANC registration has increased three times; from 14 percent in the Baseline to 44 percent in the Endline survey and is statistically significant ($p<0.001$). On the other hand, ANM or AWW as a motivator for ANC registration has declined between the two rounds of survey. To improve the nutritional and health status of pregnant and lactating mothers, Anganawadi centers provide nutritional food during pregnancy and lactating period. To a question on whether women received food from AWC, a substantial proportion (82 percent) admitted that they have received supplementary nutrition in Endline survey up of 15 percent points from Baseline survey ($p<0.001$). The proportion received food was more among SC/ST women compared to non-SC/ST women.

Table 3.5 Percent distribution of women, by reasons for not contacting Health personnel, according to sampling domain

	Baseline			Endline		
Response	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
ASHA						
Never been pregnant	7.6	7.6	7.6	8.0	7.0	8.7
No ASHA in the village	7.2	7.7	7.0	13.1	12.9	13.1
Different caste	0.8	0.8	0.8	0.5	0.3	0.6
Family	2.1	1.3	2.5	0.2	0.1	0.2
Other	12.2	11.6	12.5	7.8	8.3	7.6
Don't Know	14.6	11.8	16.0	10.1	10.1	10.2
ANM						
Never been pregnant	7.2	6.9	7.3	5.3	4.4	6.0
NO ANM in HSCs during my pregnancy	1.6	1.5	1.7	2.7	3.3	2.3
Asked money/Family refused	0.2	0.2	0.2	0.2	0.1	0.2
Never visited	1.7	1.4	1.9	1.5	1.0	1.8
Not visit as different caste group	0.3	0.4	0.3	0.1	0.1	0.1
Family member. don't allow	1.8	1.0	2.2	0.1	0.1	0.1
Time is not convenient	13.4	13.2	13.5	7.4	8.9	6.5
She visits specific caste group	0.7	1.1	0.5	0.0	0.1	0.0
Other	9.6	9.2	9.9	5.7	5.3	5.9
Don't Know	10.6	8.8	11.6	9.4	7.7	10.4
AWW						
Never been pregnant	7.8	7.9	7.7	6.8	5.8	7.3
No AWW in Village during my pregnancy	0.8	1.0	0.8	2.1	2.3	1.9
Visiting as she is from diff. caste	0.6	0.8	0.5	0.5	0.4	0.6
Family member not allowed	2.0	1.3	2.3	0.2	0.1	0.2
Don't have any child	11.7	10.9	12.1	16.4	14.7	17.4
Other	12.3	11.5	12.8	4.6	4.6	4.6
Don't Know	14.8	12.8	15.9	9.0	9.2	9.0
Number of women	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**

Table 3.6: Percent distribution of women by the person facilitated/motivated for ANC registration and proportion received Supplementary nutrition from AWC during last 3 years, according to sampling domain

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Who facilitated ANC reg. *(p<0.001)*						
ASHA	14.4	16.4	13.3	43.9	45.6	42.8
ANM/Nurse	19.9	22.7	18.4	11.0	13.1	9.7
Anganawadi worker	12.1	12.5	11.8	9.3	10.4	8.5
Doctor	5.5	5.0	5.8	3.3	2.5	3.9
Husband	23.2	23.0	23.3	9.9	8.2	11.0
Other family member	11.1	8.8	12.3	9.2	8.8	9.4
Other	0.3	0.1	0.3	0.4	0.5	0.3
None/Self	13.6	11.5	14.7	13.0	10.9	14.4
Prop. of woman received Supplementary nutrition from AWC *(p<0.001)*	66.8	69.5	65.2	81.6	84.4	79.92
Number of women	**2499**	**1321**	**1178**	**2337**	**1205**	**1132**

χ2 p values refer to ALL between Baseline and Endline survey

3.7. Person detected pregnancy complications, contact with health workers at delivery place, carrying Thayi/MCH card and ASHA's accompany

All women who had delivered during the last three years were asked further whether they had experienced any pregnancy complications. Proportion of women those who reported of complications were asked who had detected the complication/s and responses are tabulated in table 4.7. For majority of the women, both in Baseline and Endline survey, pregnancy problems were identified by either herself or by family members or by friends. However, proportion reported problems were identified by health personnel (doctor, ANM, ASHA etc) has declined from 60 percent in Baseline survey to 38 percent in Endline survey.

Women prefer to go to their parents' home, especially in case of first pregnancy for delivery. It is expected that they have to carry Thayi/MCH card along with them and expected to be in touch with a health personnel of natal place to ensure the continuation of services during pregnancy, delivery and after delivery. The information presented on these in table 4.7 showed that proportion of women carried Thayi/MCH card along with them has increased from 67 percent to 82 percent and proportion not provided a card earlier had declined from 26 percent to 12 percent between Baseline and Endline survey and is statistically significant ($p<0.001$). Further,

proportion of women reported that a new card was issued to them at the delivery place has increased substantially from 20 percent to 75 percent between the surveys and the difference is found to be statistically significant ($p<0.001$). Regarding contact with the health personnel at the place of delivery, compared to other health personnel, more women reported that ASHA had contacted them before delivery and this proportion has increased substantially between surveys (from 45 percent to 64 percent) and a significant increase is observed in the women reporting that ASHA had accompanied them during delivery (from 38 percent in Baseline survey to 49 percent in Endline survey ($p<0.001$)) and accompany of ASHA is observed more for SC/ST women than for the non-SC/ST women.

Table 3.7: Percent distribution of women by the personnel detected the pregnancy problems, contact of Health workers, carrying of Thayi/MCH card and ASHA accompanied during delivery during last 3 years, according to sampling domain

	Baseline			Endline		
Response	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Who detected the Pregnancy problems						
Self/Family/Friends	68.5	73.2	66.2	83.9	85.6	82.8
ASHA	0.5	1.0	0.2	2.0	2.8	1.6
ANM/Nurse	10.7	10.2	10.9	5.9	6.4	5.5
Anganawadi Worker	1.1	0.7	1.2	0.6	0.3	0.8
Doctor	47.2	45.6	48.0	29.8	29.1	30.0
RMP	0.2	0.7	0.0	0.1	0.0	0.2
Number of women	**1275**	**662**	**613**	**1027**	**520**	**507**
Contact with health personnel at delivery place						
ASHA	44.5	41.9	45.7	64.2	66.8	62.7
ANM	31.2	29.6	32.0	36.2	41.3	33.1
Anganawadi Worker	23.5	22.2	24.2	37.4	40.8	35.4
Number of women	**1534**	**775**	**759**	**1452**	**725**	**727**
Carrying of Thayi/MCH card to delivery place *(p<0.001)*						
Card was taken	66.9	65.2	67.6	81.7	80.9	82.2
Card was not taken	7.6	8.0	7.3	6.0	6.6	5.6
No card earlier	25.6	26.8	25.0	12.3	12.6	12.2
Number of women	**2499**	**1321**	**1178**	**2337**	**1205**	**1132**
Issued New Thayi/MCH card at delivery place ***(p<0.001)***	6.7	9.9	5.0	13.9	23.2	7.3
Number of women	**496**	**262**	**234**	**247**	**128**	**119**
ASHA accompanied while going for delivery ***(p<0.001)***	37.7	39.1	36.9	49.0	55.2	45.3
Number of women	**1744**	**894**	**850**	**1816**	**928**	**888**

χ2 p values refer to ALL between Baseline and Endline survey

3.8 Person facilitated/motivated for family planning services

All women who were using a family method at the time of survey or those who had used a FP method earlier, were asked who motivated them to use the method. The responses are summarized in table 3.8. It is found that husband and woman herself were the main motivators for acceptance of family planning method both in Baseline and Endline surveys. While health personnel (Doctor, ANM, AWW, ASHA) as motivators of FP has doubled between the surveys (17 percent to 35 percent), the proportion reported "mother", "mother-in-law" and "relatives/friends" as motivators has declined since Baseline survey.

Table 3.8: Percent distribution of women by the person facilitated/motivated for family planning services, according to sampling domain

Person motivated for Family planning	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Doctor	5.4	4.7	5.8	8.5	6.8	9.4
ANM/Health worker	7.2	11.3	5.4	10.8	14.9	8.4
Anganawadi worker	2.2	2.6	2.0	5.3	6.8	4.4
ASHA	1.9	2.2	1.8	10.1	12.3	8.8
NGO/CBO	0.1	0.3	0.1	0.4	0.3	0.4
Husband	73.5	72.9	73.8	65.7	65.4	65.8
Mother-in-law	14.5	12.2	15.5	12.0	12.6	11.7
Mother	18.5	18.8	18.3	15.6	16.6	15.0
Relatives/ Friends	14.6	14.9	14.4	11.9	13.3	11.0
Self	69.8	72.6	68.4	74.9	74.5	75.2
Male Health worker	0.3	0.1	0.4	0.3	0.6	0.1
Other	0.6	0.0	0.9	0.1	0.2	0.0
Number of women	**2213**	**1037**	**1176**	**2395**	**1178**	**1217**

Chapter 4

Fertility

One of the objectives of the household survey is to provide information on fertility levels among the women between the age group of 15-34 years in the study area. This section gives information on Age Specific Fertility Rate (ASFR), Total Fertility Rate (TFR), birth order distribution, number of pregnancy outcomes experienced by the women, children ever born (CEB) and surviving according to the sampling domain. Further, this section also gives information on birth interval and abortion rate along with number of abortions experienced by the women during three-years previous to the surveys.

4.1 Fertility Levels

All the interviewed women were asked to give the details on total number of pregnancy outcomes experienced by them including live births, still births and abortions. Based on the information, ASFR and TFR have been analyzed for the three-years previous to the survey.

Table 4.1: ASFR and TFR during previous 3 years by sampling domain

Age of woman	Number of women			Number of live births			ASFR/1000 women			TFR per woman		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Baseline												
All	6075	3049	3026	2886	1535	1351				**2.80**	**2.98**	**2.60**
15-19	1682	927	755	620	376	244	369	406	323			
20-24	1967	966	1001	1517	783	734	771	811	733			
25-29	1528	724	804	645	319	326	422	441	405			
30-34	898	432	466	104	57	47	116	132	101			
Endline												
All	6011	2984	3027	2712	1436	1276				**2.69**	**2.83**	**2.53**
15-19	1554	822	732	574	337	237	369	410	324			
20-24	1914	978	936	1447	767	680	756	784	726			
25-29	1535	710	825	585	279	306	381	393	371			
30-34	1008	474	534	106	53	53	105	112	99			

Table 4.1 presents the trend in Age Specific Fertility Rate per 1000 women and Total Fertility Rate per woman from Baseline and Endline surveys according to sampling domain. Based on the estimates for the three-year period before Endline, the TFR was 2.69 births per woman, lower than the Baseline TFR estimate of 2.80. The TFR was 2.83 per woman for SC/ST group and 2.53 for non-SC/ST woman during Endline and same trend was observed in the Baseline survey also. Between Baseline and Endline, the TFR however, declined by a meager 0.07 children, (from 2.60 to 2.53), among non-SC/ST women, but it has decreased by 0.15 children (from 2.98 to 2.83) per woman among SC/ST women.

Age-specific fertility rates are lower at all ages among non-SC/ST women than among SC/ST women. Seventy two percent of total fertility among non-SC/ST and 69 percent of total fertility among SC/ST women were concentrated in the prime childbearing ages, 20-29 years. There is also a moderate amount of early childbearing at age 15-19. Fertility at ages 15-19 accounted for 20 percent of total fertility among non-SC/ST and 22 percent among SC/ST community. Fertility at ages 30-34 accounted for only six percent of total fertility among non-SC/ST and seven percent among SC/ST community.

The concentration of fertility at ages 15-19 has not changed, but lower fertility trend has been observed at the ages 20 and above, between the Baseline and Endline surveys and it is true in case of both SC/ST and non-SC/ST women. Further, decline is more among SC/ST category women than their counterparts. The results indicate that, between the survey rounds, fertility fell mainly for ages 20 and above and remained stagnant for the age group of 15-19 years.

4.2 Distribution of births

The distribution of births by birth order is yet another way to understand the fertility levels. Table 4.2 shows the distribution of births during the three-year period before the survey by birth order for selected characteristics. Overall, as expected, the proportion of births at each order was larger than the proportion at the next birth order. Thirty-four percent of all births were first-order births, 30 percent were second order births, and 35 percent were births of order three or higher. Same trend has been observed in all categories of the characteristics included in the analysis barring some categories.

The proportion of births that were of order three or higher was 35 percent in Baseline and 34 percent in Endline, indicating decline in fertility over the period (p=0.040). The proportion of births of order three or higher was particularly high for births to women with lower economic status (46 percent) and SC/ST women (40 percent) compared to their counterparts in both the rounds.

Table 4.2: Percent distribution of births in the past 3 years according to order of birth, by selected characteristics

	Baseline				Endline			
	N	1	2	3+	N	1	2	3+
ALL *(p=0.040)*	2885	34.4	30.5	35.1	2712	32.9	33.6	33.6
Caste/Tribe								
SC/ST	1535	34.2	28.5	37.2	1436	29.0	31.2	39.8
Non SC/ST	1350	34.5	31.5	34.0	1276	35.4	35.3	29.3
Wealth Index								
Low	898	28.7	28.7	42.6	795	24.5	29.0	46.4
Middle	920	35.1	29.5	35.6	920	36.5	34.6	29.0
High	1016	38.9	32.5	28.5	986	35.6	36.1	28.3
Birth year								
Prev. 1 year	1035	34.7	30.6	34.6	924	36.3	29.3	34.4
Prev. 2nd year	927	35.6	28.2	36.2	924	30.1	37.3	32.6
Prev. 3rd year	923	32.8	32.5	34.7	864	32.1	34.3	33.6

χ^2 p values refer to ALL between Baseline and Endline survey

4.3 Children Ever Born and Children Surviving

Number of children ever born to women is a cohort measure of fertility as it reflects fertility in the past and provides a different picture of fertility than the period measures of fertility such as the Crude Birth Rate (CBR) and Total Fertility Rate. Table 4.3 provides mean and percent distribution of total number of pregnancy outcomes, number of live births and number of surviving children ever experienced by the interviewed women by SC/ST and non-SC/ST for Baseline and Endline surveys.

Table 4.3: Percent distribution of interviewed women by number of pregnancy outcomes, children ever born and surviving, according to sampling domain

	Baseline			Endline		
Number	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women	5240	2628	2612	5154	2565	2589
Number of pregnancy outcomes						
None	16.2	15.3	16.7	13.6	12.5	14.2
1	17.7	18.3	17.4	16.1	15.0	16.7
2	22.9	20.4	24.2	24.4	19.8	27.2
3	23.4	23.1	23.5	25.1	27.5	23.6
4+	19.8	23.0	18.2	20.8	25.1	18.2
Mean	***2.3***	***2.4***	***2.2***	***2.4***	***2.5***	***2.2***
Number of children ever born						
None	18.3	17.0	19.0	15.3	13.7	16.2
1	18.9	20.2	18.3	18.1	16.5	19.0
2	24.8	20.7	26.9	27.1	22.7	29.7
3	22.6	23.5	22.1	24.8	28.0	22.9
4+	15.4	18.7	13.7	14.8	19.0	12.2
Mean	***2.1***	***2.2***	***2.0***	***2.2***	***2.3***	***2.0***
Number of surviving children						
None	19.2	17.9	19.9	16.1	14.7	17.0
1	20.7	22.0	20.0	19.9	18.4	20.9
2	26.3	22.5	28.2	28.5	24.0	31.2
3	22.6	24.3	21.7	24.5	28.7	22.0
4+	11.2	13.3	10.2	11.0	14.3	9.0
Mean	***1.9***	***2.0***	***1.9***	***2.0***	***2.1***	***1.9***

Around 16 percent of the total interviewed women had never experienced any pregnancy outcome and remaining 83 percent had experienced at least one pregnancy outcome. Results indicate that, 20 percent of the total women had experienced four or more pregnancy outcomes. The differentials among the social category is evident, the proportion of women who had never experienced pregnancy outcome is low among SC/ST category (15 percent) compared to their counterpart (17 percent), and it is the other way in case of women who have experienced pregnancy outcome of four or more. The same trend has been observed in case of children ever born and children surviving and it is true for Endline results also. Further, results show that the proportion of women who had never experienced any pregnancy outcome or experienced one

pregnancy outcome have decreased and the proportion of women who had experienced two or more pregnancy outcomes had increased between Baseline and Endline.

The results of the children ever born and children surviving show that around 18 percent of the total women had never experienced any live birth and 19 percent were not having any surviving child. The mean number of pregnancy outcome, live birth and children surviving were estimated as 2.3, 2.1 and 1.9 respectively in Baseline survey with marginal decline in the Endline.

4.4 Birth interval

A birth interval, defined as the length of time between two successive live births, indicates the pace of childbearing. Short birth intervals may adversely affect the mother's health and her children's chances of survival. Past research has shown that children born too close to a previous birth are at increased risk of dying. Recent research has shown that the optimal birth interval is 3 to 5 years for reducing neonatal and infant mortality.

Table 4.4 shows the proportion of second and higher births during the three years preceding the survey by district and social category. Around 38 percent of the total births, at second and higher level were having the birth interval of less than two years to the preceding birth; this proportion has increased to 39 percent in Endline, but it was statistically not significant (*p=0.644*). Among the project districts, this proportion is less in Bidar and high in Bijapur district. The proportion of these births have been increased in the Endline for all the districts baring two districts, Bijapur and Gulbarga, where in a decreasing trend is observed. Analysis by social categories shows that, the proportion of less than two years birth interval was higher (40 percent) among non-SC/ST category compared to SC/ST category (35 percent).

Table 4.4: Percentage of second and higher order births in the past 3 years that have a previous birth interval of <24 months, by district and sample domain

	Baseline		Endline	
	Number	within 24 months	Number	within 24 months
Total ***(p=0.644)***	1859	38.0	1820	38.7
District				
Bagalkot	233	33.0	193	38.9
Bijapur	294	49.7	300	44.1
Bidar	184	28.8	204	32.5
Raichur	247	37.9	246	38.7
Koppal	196	39.6	198	38.2
Bellary	210	35.4	226	41.9
Gulbarga	326	37.8	304	34.4
Yadgir	169	31.4	149	41.4
Caste/Tribe				
SC/ST	1008	34.7	1000	39.7
Non SC/ST	851	39.8	820	38.0

χ^2 *p values refer to ALL between Baseline and Endline survey*

4.5 Abortion

Fertility history further provides the information on the number of abortions experienced by the women and hence based on this information abortion rates are calculated among the interviewed eligible women for the previous 3 years period and are presented according to the sampling domain in table 4.5.

Table 4.5: Abortion rate among interviewed women during previous 3 years, according to sampling domain

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of Spontaneous abortions	198	95	103	204	93	111
Spontaneous abortion rate (per 1000 women)	***13***	***12***	***13***	***13***	***12***	***14***
Number of induced abortions	48	16	32	62	18	44
Induced abortion rate (per 1000 women)	***3***	***2***	***4***	***4***	***2***	***6***
Number of total abortions	246	111	135	266	111	155
Abortion rate (per 1000 women)	***16***	***14***	***17***	***17***	***14***	***20***
Number of women	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**

Abortion rate has been calculated by using number of abortions and number of women and presented as rate per 1000 women. Result shows that, 16 abortions per 1000 women were estimated in Baseline and in Endline with marginal increase (17 abortions). The increase is mainly among the non-SC/ST category, from 17 to 20 abortions, and the SC/ST category was stagnant at 14 abortions per 1000 women between the two survey periods. Further, abortion rates have been presented separately for spontaneous and induced abortions; as expected spontaneous abortions were more than induced abortions. One more interesting finding between the two survey rounds is the increase of abortion rate among non-SC/ST category for induced abortions than for the spontaneous abortions.

Chapter 5

Mortality

This section gives information on deaths in the interviewed households and specifically on maternal deaths, neo-natal deaths and infant deaths among the study population. The Infant Mortality Rate and Maternal Mortality Ratio are very important to measure the socio-economic development and quality of life, any population has and also can be used for monitoring and evaluation of population and health programs.

5.1 Crude Death Rate

All the households interviewed were asked to give information on whether any usual resident or visitor of that household died during previous three years. If that is the case, number of persons died, separately for males and females were asked. For each of the person died, details on whether the deceased person was a usual resident or a visitor, month and year, his or her age at death and detailed information on whether it was a maternal death, neonatal death or an infant death was collected. Main cause of death as well as place of death was also asked for each of the deceased person. Crude Death Rate and Maternal Mortality Ratio are estimated here based on the information collected in the death roster of the household questionnaire.

Table 5.1: Number of deaths reported among interviewed households and crude death rate during previous 3 years by sampling domain

	Baseline			Endline		
Particulars	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Both usual residents and visitors						
Population	32232	16242	15990	32055	16051	16004
Deaths during last 3 years	775	365	410	767	358	409
Crude Death Rate	***8.0***	***7.5***	***8.5***	***8.0***	***7.4***	***8.5***
Only usual residents						
Population	30403	15292	15111	29764	14975	14789
Deaths during last 3 years	729	340	389	732	344	388
Crude Death Rate	***8.0***	***7.4***	***8.6***	***8.2***	***7.7***	***8.7***

Table 5.1 presents the total population and number of deaths reported in the interviewed households as well as Crude Death Rate (CDR) for the period of three-years preceding the survey date, according to the sampling domain separately, for combining usual residents and visitors, and only for usual residents, for Baseline and Endline period. Around, 767 deaths were reported during the three-year period preceding to the Endline survey (358 deaths among SC/ST and 409 deaths among non-SC/ST categories), making the crude death rate of eight per 1000 population. The estimated CDR is low among SC/ST households (7.4 per 1000) compared to their counterpart (8.5 per 1000), same trend has been observed in Baseline also.

Estimation of CDR based on usual residents only; provide a little higher rate of 8.2 per 1000 population for combine SC/ST and non-SC/ST population, 7.7 among SC/ST category and 8.5 among non-SC/ST category. But the analysis of combined population of usual resident and visitors has not produced much difference between Baseline and Endline figures.

5.2 Maternal Mortality

In the household questionnaire, under the death roster, if sex of the deceased person was a female and her age was between 15-49 years at the time of death, a series of questions were asked to know about whether that woman was pregnant at the time of the death or whether it was within six weeks of abortion, whether the woman died during child birth or whether she died within six weeks of end of pregnancy or child birth.

These questions give us information on number of women died during pregnancy or delivery. However, they do not provide the information on whether the death was due to pregnancy/delivery related cause or whether it was due to non-maternal reasons. Table 5.2 presents the information on total maternal deaths. Six women died (3 SC/ST category and 3 non-SC/ST category women) during three-years preceding the Endline survey compared to 12 women (6- SC/ST category and 6- non-SC/ST category women) in the Baseline period. Estimation based on these figures gives the Maternal Mortality Ratio of 221 per 100,000 live births compared to 416 maternal deaths in Baseline period, indicating around 50 percent decline in the maternal mortality in the project area. Further, results show that, in contrast to the childhood mortality, maternal mortality is higher among non-SC/ST community (235/1,00,000

live births) compared to the SC/ST community women (209/1,00,000 live births), same trend was observed in Baseline survey.

Table 5.2: Maternal Mortality and Early Childhood Mortality during previous 3 years

	Live births	NN Deaths	Infant deaths	Under five deaths	Neonatal Mortality Rate	Infant Mortality Rate	Maternal Deaths
Baseline							
All	2886	117	147	158	**40.8**	**53.5**	12
SC/ST	1535	69	81	85	**45.3**	**54.7**	6
Non SC/ST	1351	48	66	73	**35.7**	**52.0**	6
Endline							
All	2712	81	113	121	**30.4**	**43.5**	6
SC/ST	1436	50	65	69	**35.7**	**46.2**	3
Non SC/ST	1276	31	48	52	**24.4**	**40.5**	3

5.3 Early Childhood Mortality

Information on early childhood mortality has been extracted from the fertility roster in ever married woman questionnaire. In the fertility roster for each of the live birth, a question was asked to the woman whether the child is still alive and if not the details were asked about the age at the time of death. Age at death was recorded in 'days' for children dying in the first month of life, in 'months' for children dying before their first birthday, and in 'years' for children dying at later ages. The detailed information on number of live birth, neo-natal, infant and under-five death is presented in table 5.2. This information was used to calculate the following direct estimates of neo-natal and infant mortality:

Neonatal mortality **:** The probability of dying in the first month of life

Infant mortality (1q0) **:** The probability of dying before the first birthday

These mortality rates have been estimated and presented in table 5.2 using life table technique based on the information extracted from fertility roster for the three-years preceding the survey.

According to these estimates, infant mortality in the project area has declined from 54 deaths per 1,000 live births in Baseline to 44 deaths per 1,000 live births in Endline, thus implying an average decline of 10 infant deaths per 1,000 live births during the period of 3 years. More or less same decline has been recorded in case of neo-natal mortality also from 41 to 30 neonatal deaths per 1,000 live births between these years.

Coming to the differentials between SC/ST and non-SC/ST children, results show that, both the indicators of early childhood mortality are higher in the SC/ST community compared to non-SC/ST community. IMR among SC/ST children was 45 compared to 36 among Non-SC/ST group during Baseline and the similar difference is observed even during Endline also (36 among SC/ST compared to 24 among non-SC/ST group). The gap between the groups has widened from 9 to 12 neonatal deaths per 1000 Live births. Similarly, IMR was estimated as 55 among SC/ST children and 52 among non-SC/ST children and it has reduced to 46 and 41 respectively for the two groups after 3 years; still a gap of around 5 Infant deaths per 1000 Live births is observed between the two groups. Overall, a declining trend in the early childhood mortality in the project area is an encouraging phenomenon but still some more attention is required for the socially and economically deprived groups so as to reach the target of NHM goals.

Chapter 6

Morbidity and Treatment seeking Behavior

This chapter deals with various complications experienced by the women during their last pregnancy (excluding current pregnancy), during their last delivery as well as complications experienced soon after their last delivery. Further, the interviewed women were asked whether their last child had experienced any newborn complications. For all the last surviving children aged 12-23 months, mothers were further enquired whether the child had experienced any childhood diseases like diarrhea and cough with fever. Further, treatment seeking pattern of women was also enquired if they had experienced any of the above complications. All this information has been gathered in both, Baseline and Endline surveys.

6.1 Pregnancy Complications

In the survey, all the women who had experienced at least one live birth or still birth during previous 3 years, (since January, 2012 for Endline and since January 2009 for Baseline) were asked whether they had experienced any pregnancy complication during their last pregnancy. Responses given by the women have been analyzed and presented in table 6.1 according to the sampling domain. While asking for the pregnancy complications, first, all the complications reported spontaneously by the women were coded and then probing was done for the remaining complications. If a woman says that, she has experienced any complication, it was reported as probed (yes) and all the remaining complications were marked as not experienced. Here, while analyzing the experience of pregnancy complications, both spontaneous as well as probed responses are combined.

Table 6.1 presents the proportion of women who had experienced different pregnancy complications according to the sampling domain. Out of 2181, little less than half of the women (47 percent), who had at least one live birth or still birth during last three-years preceding the survey, experienced one or the other pregnancy complication during Endline and it is in decreasing trend compared to Baseline survey (54 percent) and the difference is statistically significant ($p<0.001$), and it is true in case of SC/ST and non-SC/ST category. Interestingly, the prevalence of complication is higher among non-SC/ST community women compared to their

counterparts in both the rounds. The decline in pregnancy complication is larger among non-SC/ST women between the two survey periods. Further, results show that little more than one-third of the women have experienced excessive vomiting/giddiness, followed by weakness/excessive fatigue (30%), headache/visual disturbances (19%), swelling of hands, feet and face (19%), etc. in both the surveys.

Table 6.1: Proportion of women experienced pregnancy complications during their last pregnancy during previous 3 years, according to sampling domain

Pregnancy complications	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women experienced Live birth/Still birth during previous 3 years	**2352**	**1251**	**1101**	**2181**	**1144**	**1037**
Experienced any preg. complications ***(p<0.001)***	54.2	50.5	56.2	46.6	45.1	47.6
Excessive vomiting/giddiness	34.4	30.8	36.4	32.0	29.9	33.4
Weakness/excessive fatigue	29.9	27.8	31.1	22.0	22.3	21.7
Headache/visual disturbances	18.8	20.0	18.2	13.5	14.7	12.6
Swelling of hands, feet and face	18.5	18.2	18.7	15.7	16.0	15.5
Abdominal pain	17.1	16.9	17.3	12.7	13.0	12.6
Convulsions not with fever	8.2	7.8	8.4	6.1	6.9	5.6
Weak/no movement of fetus	4.9	4.7	5.0	2.4	2.9	2.1
Preterm labor	3.6	3.6	3.5	0.8	0.8	0.8
Abnormal position of fetus	2.1	2.2	2.1	1.1	0.7	1.3
Vaginal discharge	1.7	1.9	1.6	0.7	0.8	0.6
Jaundice	1.7	2.2	1.4	1.4	1.6	1.3
Vaginal bleeding	1.5	1.3	1.6	0.8	1.3	0.5
Malaria	1.0	1.0	1.0	0.6	0.7	0.5
Preterm premature rupture of membrane	0.4	0.4	0.4	0.5	0.6	0.6
Other	2.1	1.9	2.2	2.7	2.3	3.0

Note: χ2 p value refers to 'All' between Baseline and Endline

6.2 Delivery complications

Similarly, questions were asked to the women about the experience of the delivery complications during the three-years preceding the survey. Using this information, proportion of women experienced delivery complications have been calculated and presented in table 6.2 along with, timing of complication and type of delivery according to the sampling domain. Around, one-fourth of the women had experienced one or the other delivery complications during their last delivery compared to around 30 percent in the Baseline survey, and this difference was found

statistically significant. It has been found that in both the surveys, the prevalence of delivery complications was high among women belonging to non-SC/ST category compared to their SC/ST counterparts. However, the gap between the two groups is getting narrowed. The most common complications reported were obstructed labor, prolonged labor, high BP and premature labor.

Table 6.2: Proportion of women experienced delivery complications during their last delivery during previous 3 years, according to sampling domain

Delivery complications	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women experienced Live birth/still birth during last 3 years	**2352**	**1251**	**1101**	**2181**	**1144**	**1037**
Experienced any delivery complications ***(p=0.006)***	29.4	27.8	30.3	25.8	25.2	26.1
Excessive bleeding after delivery	9.1	10.1	8.6	2.7	3.0	2.4
Obstructed labor	9.1	9.7	8.8	8.2	8.2	8.1
Prolonged labor	6.6	6.5	6.6	6.2	6.1	6.2
High BP	5.6	4.6	6.2	4.8	4.7	4.8
Premature labor	5.2	4.1	5.8	5.1	5.3	5.0
Excessive bleeding before delivery	4.6	3.1	5.4	1.6	1.5	1.8
Convulsion	4.4	4.3	4.5	2.3	1.8	2.7
Breech/mal presentation	2.8	2.9	2.6	1.8	1.8	1.8
Sepsis/Fever	2.8	3.7	2.2	1.1	1.4	0.9
Preterm premature rupture of membrane	1.2	1.2	1.2	0.7	0.3	0.9
Other	4.4	3.2	5.0	3.4	3.2	3.5
Timing of complication						
Beginning of labor pain	11.9	10.1	12.9	10.9	9.9	11.7
During delivery	15.7	15.1	16.1	13.2	13.5	13.1
After Delivery	7.1	7.9	6.6	3.5	3.6	3.5
Type of delivery						
Normal	26.3	24.1	27.6	22.8	22.6	23.0
Caesarean	56.2	65.6	52.5	45.5	54.9	42.2
Assisted	52.4	77.8	33.3	36.4	0.0	44.4

Note: χ2 p value refers to 'All' between Baseline and Endline

Data has been analyzed and presented also for the timing of occurrence of complication and type of delivery according to sampling domain. Results indicate that, delivery complications were more common 'during the time of delivery' (16 percent) followed by 'at the beginning of delivery' (12 percent) and 'soon after delivery' (7 percent) during Baseline. Further, the

prevalence of delivery complication during the time of delivery, beginning of labor and after delivery has declined to 13, 11 and 4 percent respectively during Endline. More women, who have undergone Caesarean delivery, had reported delivery complication (56 percent) than those women who had normal delivery (26 percent) during both the survey rounds.

6.3 Postpartum complications

Household survey also collected information from eligible women regarding postpartum complication during last three years from the survey date. Table 6.3 presents the prevalence of any postpartum complication according to sampling domain. One in every ten women reported that they had one or the other complications soon after their delivery, but statistically significant (*p<0.001*) decline of around fifty percent has been observed between Baseline and Endline survey. Further, in contrast to the pregnancy and delivery complication, PP complication were higher among SC/ST category women (13 percent) than among non-SC/ST category women (9 percent) during Baseline and it has reduced to 6 percent among SC/ST women and to 5 percent among Non-SC/ST women during Endline. Among the complications high fever, lower abdominal pain and excessive bleeding were commonly reported.

Table 6.3: Proportion of women experienced postpartum complications after their last delivery during last 3 years, according to sampling domain

	Baseline			Endline		
PP complications	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women experienced Live birth/still birth during last 3 years	**2352**	**1251**	**1101**	**2181**	**1144**	**1037**
Experienced any PP complications ***(p<0.001)***	10.4	12.8	9.1	5.7	6.3	5.3
High fever	4.6	4.9	4.4	1.5	1.8	1.2
Lower abdominal fever	3.9	5.3	3.2	1.2	1.4	1.1
Excessive bleeding	3.3	4.7	2.6	1.7	1.7	1.7
Convulsions	1.2	1.7	0.9	1.1	1.5	0.8
Problem related to urine	0.5	0.5	0.5	0.4	0.6	0.2
Foul smelling lochia	0.2	0.2	0.1	0.1	0.1	0.1
Red and tender breasts	0.2	0.1	0.1	0.2	0.2	0.1

Note: χ2 p value refers to 'All' between Baseline and Endline

6.4 Newborn complications

Further, women who had a live birth and the child survived at least for some time during three-years preceding the survey were asked whether their child suffered from any complication during the first month of the delivery. Using data from this information, prevalence of newborn complication has been estimated and presented in table 6.4 according to sampling domain. Around 13 percent and 12 percent of the women who had experienced a live birth and the child survived at least for some time, reported that their newborn suffered from one or the other complication soon after the delivery in the Baseline and Endline respectively. The difference between SC/ST and non-SC/ST category which was observed in the Baseline survey in this regard, was not found in the Endline. Low birth weight/premature birth was the most commonly reported complication in the Baseline in comparison to Jaundice during the Endline.

Table 6.4: Proportion of women reported newborn complications for their last child, born during last 3 years according to sampling domain

Newborn complications	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women experienced Live birth and child survived at least for some time during last 3 years	**2280**	**1207**	**1073**	**2133**	**1124**	**1009**
Experienced any new born complications ***(p<0.001)***	13.0	13.9	12.5	11.7	11.6	11.9
Low birth weight/premature	2.8	3.7	2.3	1.9	1.8	2.0
Jaundice	2.5	1.4	3.2	3.0	3.0	3.0
Respiratory problems	2.3	2.1	2.4	1.8	2.0	1.6
Difficulty in breast feeding	1.2	1.6	0.9	0.6	1.2	0.3
Diarrhoea	1.1	1.2	1.1	0.4	0.2	0.5
New born infections	0.7	1.1	0.5	0.8	0.9	0.8
Convulsions	0.6	1.1	0.3	0.9	0.2	1.3
Bleeding	0.5	0.4	0.6	0.0	0.0	0.0
Other	4.6	5.1	4.4	4.2	4.9	3.7

Note: $\chi 2$ p value refers to 'All' between Baseline and Endline

6.5 Childhood problems

Information on two major childhood diseases, diarrhoea and Acute Respiratory Infections, which not only contributes to the high rates of early childhood mortality but also leads to the growth

faltering among children, was gathered. The occurrence of these diseases during previous three months of the survey was reported by the women who were having children aged less than two years at the time of survey. Table 6.5 presents the proportion of the children who had experienced diarrhoea, cough with fever or any one of them according to sampling domain.

Less than one-fifth of the children reported to have experienced diarrhoea and more than one-third of them have reported to have experienced cough with fever during Baseline. Statistically significant difference has been observed between Baseline and Endline survey. The proportion of children who experienced diarrhoea had gone up from 19 percent to 22 percent (*p<0.001*), whereas, the proportion of children experienced cough with fever had declined from 35 percent to 32 percent (*p<0.001*). Further, the proportion of children who have experienced Diarrhea or cough is 40 percent in Baseline survey, which has declined to 39 percent but this not statistically significant (*p=0.510*). Prevalence of diarrhoea, cough with fever or any one of them was higher among the children belonging to non-SC/ST category than the SC/ST category, in the both the surveys.

Table 6.5: Proportion of children aged less than 2 years experienced diarrhoea and/or cough with fever, during last 3 months according to sampling domain

Childhood diseases	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of children aged < 2 years	**1755**	**950**	**805**	**1684**	**871**	**813**
Experienced Diarrhea ***(p<0.001)***	18.5	15.2	20.3	21.5	17.3	24.2
Experienced cough with fever ***(p<0.001***)	34.8	30.0	37.5	31.9	29.4	33.4
Experienced Diarrhea/cough with fever ***(p=0.510)***	39.7	34.1	42.8	38.6	34.8	40.9

Note: χ2 p values refer to 'All' between Baseline and Endline

6.6 Treatment for Pregnancy complications

Treatment seeking behavior of the women who reported that they had experienced complications during their last pregnancy has been captured in the surveys and is analysed in this section. Table 6.6 presents percent of women who had received treatment by place of treatment according to sampling domain.

Table 6.6: Percent of women sought treatment for their pregnancy complications by place of visit, number of visit during last 3 years, according to sampling domain

Place and number of visits	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women experienced pregnancy complication	**1275**	**662**	**613**	**1024**	**517**	**507**
First visit						
PHC/SC	19.4	24.2	17.0	17.9	23.9	14.2
Other public	12.5	14.2	11.7	13.8	17.2	11.7
Private	49.4	43.4	52.3	57.4	47.8	63.5
Other	0.6	1.2	0.3	0.9	0.8	1.1
Home	1.1	0.9	1.2	1.2	1.0	1.4
None	17.0	16.1	17.4	8.6	9.8	8.0
Second visit						
PHC/SC	3.4	2.4	3.8	1.0	0.3	1.4
Other public	1.4	1.7	1.3	1.4	1.0	1.4
Private	8.6	10.4	7.7	9.5	7.5	10.7
Home	0.2	0.5	0.1	0.0	0.0	0.0
Third visit						
PHC/SC	0.6	0.7	0.7	0.4	0.5	0.5
Other public	0.5	0.9	0.2	0.4	0.3	0.5
Private	2.8	2.8	2.8	3.6	1.3	5.3
Home	0.1	0.0	0.1	0.0	0.0	0.0
Combined						
PHC/SC	22.1	25.6	20.4	18.1	23.9	14.6
Other public	13.4	15.4	12.4	14.4	18.0	12.3
Private	52.5	47.6	54.9	62.2	52.2	68.5
Other	0.6	1.2	0.3	1.1	0.8	1.3
Home	1.3	1.4	1.3	1.2	1.0	1.4
None	17.0	16.1	17.4	8.6	9.8	8.0

During Endline, majority of the women (around 62 percent) reported that they had sought treatment from private hospitals, and it only 32 percent got treated in public hospitals. Around 57 percent of the women were found to approach private hospitals directly whereas and 5 percent of them had sought treatment from private sector after trying out at public facilities. Tendency to seek treatment from private sector was observed more among Non-SC/ST women (69 percent) as compared to SC/ST women (52 percent). Over the period of 3 years, proportion of women who had sought treatment from private sector increased and this was more evident among non-SC/ST

women. The Endline survey found around nine percent of the women had not received any treatment for complications during pregnancy and this was as high as 17 percent during Baseline, indicating an improvement in the treatment seeking behavior among women/families in the project area.

6.7 Treatment for delivery complications

Similar questions were asked to the women who had experienced delivery complications during their last delivery on treatment seeking pattern and place of visit. Table 6.7 presents the percent of women who had received treatment by timing of occurrence of complication and place of treatment according to sampling domain.

Out of the total, around one-third of the women had sought treatment from private hospitals during Baseline, and it has increased to 40 percent during Endline. The increasing trend was more among non-SC/ST women (from 35 to 45 percent) than the SC/ST women (from 29 to 32 percent). The percentage of women seeking treatment from PHC/SC declined over the period. The percentage of women who had not sought treatment for delivery complication has increased over the period. At the same time, percentage of women who had sought treatment at home also has declined over the period indicating a shift towards facility based treatment. Though, a larger increase was found in the seeking treatment form private facilities, an increase in percentage of women seeking treatment from higher level public facilities during delivery probably indicates toward better referral from PHCs.

6.8 Treatment for Postpartum and Newborn complications

Treatment seeking behavior for postpartum complication either for delivered women or the newborn, have been captured in the survey. All those women who had reported they experienced postpartum complication or their newborn child had complications, were enquired on their treatment seeking behavior. Based on their responses the percent of women who sought treatment for complication by place of treatment is presented in table 6.8 according to the sampling domain for both the surveys.

Table 6.7: Percent of women sought treatment for the delivery complications by place of visit, timing of occurrence of complication and sampling domain, during last 3 years

Place of visits	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Beginning of labor pain						
No. of women experienced complications during beginning of labor pain	**261**	**125**	**136**	**252**	**128**	**124**
PHC/SC	26.5	30.1	25.0	16.5	21.8	13.5
Other public	29.4	32.5	28.6	29.2	31.0	28.2
Private	36.9	26.5	41.3	42.8	32.2	48.7
Other	1.1	3.6	0.0	0.4	1.1	0.0
Home	5.0	6.0	4.6	6.2	4.6	7.1
None	0.7	0.0	1.0	4.9	8.0	3.2
During delivery						
No. of women experienced complications during the delivery	**369**	**196**	**173**	**296**	**156**	**140**
PHC/SC	27.4	27.8	27.6	18.3	17.9	18.6
Other public	26.3	25.4	26.4	35.3	41.9	30.8
Private	34.4	34.9	34.1	38.1	29.9	43.0
Home	10.5	9.5	11.0	5.5	5.1	5.8
None	0.8	1.6	0.4	2.1	3.4	1.2
After delivery						
No. of women experienced complications after the delivery	**155**	**85**	**70**	**88**	**51**	**37**
PHC/SC	23.2	24.2	22.8	14.1	15.6	13.0
Other public	38.1	40.9	36.6	30.8	34.4	28.3
Private	21.4	15.2	25.7	38.5	25.0	47.8
Other	1.2	1.5	1.0	0.0	0.0	0.0
Home	12.5	16.7	9.9	5.1	12.5	0.0
None	3.0	1.5	4.0	10.3	12.5	10.9
Combined						
No. of women experienced delivery complications	**688**	**354**	**334**	**584**	**309**	**275**
PHC/SC	27.9	28.9	27.4	17.4	18.7	16.9
Other public	30.2	31.0	30.0	34.3	38.4	31.8
Private	33.1	29.3	35.0	39.9	31.5	45.2
Other	0.7	1.7	0.2	0.2	0.5	0.0
Home	9.5	11.2	8.6	5.7	5.9	5.5

Out of the total women who reported complications, around 44 percent and 73 percent of the women reported that they had sought treatment from private facilities 14 percent and 4 percent had sought treatment form PHC/SC, another 36 percent and 22 percent reported that they had received treatment at other public hospitals for postpartum and newborn complications respectively. . Further the findings suggest that, among the women who had sought treatment from private facilities, the proportions were higher for the newborn complication in comparison

to postpartum complication. The percentage of women who reported that they have not received any treatment has come down to the negligible proportions. Another important finding is that likewise delivery complications, the proportion of women seeking treatment for complications from higher level public hospitals has increased over the period.

Table 6.8: Percent of women sought treatment for the postpartum complications, newborn complications by place of visit and sampling domain, during last 3 years

Place	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Place of treatment for Postpartum complications						
No. of women experienced PP complications	**236**	**141**	**95**	**127**	**72**	**55**
PHC/SC	24.5	24.3	25.2	13.7	10.9	15.9
Other public	19.6	19.6	18.7	35.5	43.6	29.0
Private	45.3	39.3	49.6	43.5	43.6	43.5
Other	1.6	0.9	2.2	0.0	0.0	0.0
Home	9.0	15.9	4.3	3.2	1.8	4.3
Not received any treatment	0.4	0.0	0.7	3.2	0.0	5.8
Place of treatment for newborn complications						
No. of women reported newborn complications	**287**	**155**	**132**	**262**	**136**	**126**
PHC/SC	11.1	9.8	11.8	4.4	7.1	2.6
Other public	15.4	18.8	13.4	21.5	20.2	21.6
Private	70.1	67.0	72.0	73.3	71.7	73.9
Other	0.7	1.8	0.0	0.4	1.0	0.7
Home	2.0	1.8	2.2	0.4	0.0	0.7
Not received any treatment	0.3	0.0	0.5	0.0	0.0	0.0

6.9 Treatment for childhood diseases

Data on treatment seeking for childhood diseases, like diarrhoea and cough with fever has been analyzed for all those children (aged less than two years) who experienced any such diseases during the last three months from the survey. Table 6.9 presents the percent of the children who had received treatment for the childhood diseases by place of treatment according to sampling domain.

Majority of the children (87 percent) who had received treatment for complications had sought it from private facilities, and only six percent of children were taken to public facilities. The proportion of children for whom the treatment was sought at PHC/SC has come down drastically from 10 percent to only two percent over the period. Among the children who sought the treatment at PHC/SC is higher among SC/ST category, whereas, in higher public facilities proportion of non-SC/ST category children was higher. Around four percent, a little higher than Baseline figure of two percent, of the children who had experienced childhood diseases had not sought any treatment. Further, the proportion of children who received treatment at home, Pharmacy/Drug house or other places was negligible.

Table 6.9: Percent of children aged less than 2 years received treatment for the childhood diseases by place of visit, during last 3 months according sampling domain

Place	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
No. of children aged <2 years experienced childhood diseases	**689**	**352**	**337**	**634**	**310**	**324**
Not received any treatment	2.2	2.3	2.1	4.0	3.5	4.2
PHC/SC	9.9	13.1	8.5	2.0	3.0	1.4
Other public	4.8	5.6	4.4	4.3	3.0	4.9
Private	78.3	74.3	80.3	87.2	87.4	86.9
Home	0.4	0.9	0.4	0.2	0.0	0.2
Pharmacy/Drug house	2.3	1.4	2.7	0.8	0.4	0.9
Other	1.9	2.8	1.5	1.8	2.6	1.4

Chapter 7

Antenatal Care

Antenatal care (ANC) refers to pregnancy related health care, which is usually provided by a doctor, an ANM or any health personnel. In India, the Reproductive and Child Health Programme aims at providing atleast three antenatal check-ups which should include a weight and blood pressure measurement, abdominal examination, immunization against tetanus, iron and folic acid prophylaxis, as well as anemia management.

ANC related information has been gathered by the women who had experienced at least one pregnancy outcome during three-years preceding the survey. These women were asked whether they contacted any health personnel for antenatal care during their last pregnancy excluding current pregnancy. Women who received antenatal care were asked about the pregnancy conformation test, registration of pregnancy, details on antenatal check-ups, IFA supplementation, type of care provider, timing of first antenatal care and total number of visits.

7.1 Pregnancy confirmation and registration

Women are supposed to approach a nearby health facility to get the pregnancy confirmation test as well as to get her pregnancy registered as early as possible so that she can take all the necessary precautions and medical care at the initial period of gestation itself. Table 7.1 presents the proportion of women who got pregnancy confirmation test and had registered, including details on receiving Thayi/MCH card, timing and place of registration and person motivated them for the registration.

More than ninety percent of women in project area had got pregnancy confirmation test and had registered for antenatal care for their most recent pregnancy. The proportion of women who had got pregnancy confirmation test and pregnancy registration has increased significantly over the time, from 90 and 87 percent in Baseline to 94 and 93 percent in Endline respectively. Percentage of women who underwent pregnancy confirmation test was higher among the non-SC/ST category women compared to their SC/ST counterpart. But it was the other way round,

where more SC/ST women, though marginally, got the confirmation test than non-SC/ST women.

Table 7.1: Percent of eligible women who had their last pregnancy outcome during previous 3 years, according to pregnancy registration details and sampling domain.

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women	2499	1321	1178	2337	1205	1132
Prop. Got pregnancy confirmation test *(p<0.001)*	89.5	85.7	91.6	94.4	93.1	95.3
Prop. Got registered their pregnancy *(p<0.001)*	87.0	87.2	86.9	92.8	93.6	92.3
Thayi card during registration *(p<0.001)*						
Given & shown	32.7	36.2	30.7	48.9	46.9	50.3
Given but could not shown	29.6	28.3	30.2	29.8	32.3	28.3
Not given	24.8	22.8	25.9	14.0	14.5	13.7
Other MCH card during registration *(p<0.001)*						
Given & shown	3.3	1.6	4.3	1.6	1.0	2.0
Given but could not shown	10.5	9.3	11.2	5.6	5.5	5.7
Not given	73.2	76.3	71.4	84.9	86.3	84.1
Timing of registration *(p<0.001)*						
I trimester	61.8	59.8	62.9	74.9	72.5	76.5
II trimester	22.5	24.4	21.6	16.4	19.0	14.8
III trimester	2.6	3.0	2.4	1.4	2.1	1.0
Place of registration						
District Hospital (within)	1.0	1.8	0.6	1.7	1.5	1.9
District Hospital (outside)	0.6	0.6	0.5	0.7	0.8	0.7
Taluka Hospital (within)	3.1	2.6	3.4	3.6	4.2	3.1
Taluka Hospital (outside)	1.0	0.8	1.1	0.8	1.0	0.8
CHC (within)	5.8	6.3	5.6	2.3	2.4	2.4
CHC (outside)	0.4	0.2	0.5	0.6	1.0	0.3
PHC (within)	24.0	25.0	23.5	14.2	14.8	13.8
PHC (outside)	3.6	2.6	4.1	2.5	2.6	2.4
Sub center (within)	29.0	33.3	26.7	51.4	54.8	49.2
Sub center (outside)	1.3	1.3	1.3	3.6	2.9	4.1
UHC/UFWC	0.0	0.0	0.1	0.1	0.0	0.1
Other Public Hospital	0.6	0.3	0.7	0.3	0.2	0.3
NGO Hospital	0.1	0.0	0.2	0.5	0.8	0.3
Private Hospital/Clinic	16.0	11.8	18.3	10.1	6.6	12.4
Other	0.5	0.7	0.4	0.3	0.2	0.3
Missing	0.1	0.2	0.1	0.0	0.0	0.0
Person motivated for registration						
ASHA	12.5	14.2	11.6	40.7	42.6	39.5
ANM/Nurse	17.3	19.7	16.0	10.2	12.2	9.0
Anganawadi worker	10.5	10.9	10.3	8.6	9.7	7.8
Doctor	4.8	4.4	5.0	3.1	2.4	3.6
Husband	20.1	20.0	20.2	9.2	7.7	10.1
Other family member	9.6	7.6	10.7	8.5	8.2	8.7
Other	0.2	0.1	0.2	0.3	0.4	0.3
None/Self	11.8	10.0	12.8	12.0	10.2	13.2

χ2 p values refer to ALL between Baseline and Endline survey

After the registration of the pregnancy in the nearby facility, preferably at Health Sub-Centre (HSC) in rural areas, every woman is issued a Thayi card to track the information about the MCH services provided and also for those services to be provided in future. All the women who had registered their pregnancy were further asked whether they had received any Thayi card during registration and if so, she was asked to show it. Other than Thayi card there may be some other MCH cards like those provided by the private facilities. Results presented in the table show that, around four-fifth of the women who had experienced at least one pregnancy outcome during three-years preceding the survey had received a Thayi card and another seven percent of them had received other MCH card. Further, results indicate that percentage of women who received Thayi card has increased from 62 percent in Baseline to 79 percent in Endline survey, whereas, proportion of women who received other MCH cards has declined from 14 percent to 7 percent in the same period of time. Slight differences are observed between SC/ST and non-SC/ST women, the proportion of women who received Thayi card was higher among SC/ST women than their non-SC/ST counterpart, while, the proportion of women who received other MCH cards was higher among non-SC/ST women compared to SC/ST women and it is true for Baseline survey also.

The timing of registration for antenatal care is important for initiation of the health checkups of the mother and the outcome of the pregnancy. Survey asked all women, who had experienced at least one pregnancy outcome during three-years preceding the survey about the timing of the pregnancy registration for the most recent birth. Around one-fourth of the women (73 percent among SC/ST and 77 percent among non-SC/ST category) had registered their pregnancy during first trimester during Endline survey compared to 62 percent (60 percent among SC/ST and 63 percent among non-SC/ST category) in Baseline survey. Proportion of women registered at second and third trimester have come down from 23 and 3 percent in Baseline to 16 and 1 percent in Endline respectively, indicating a significant improvement in the registration for antenatal care at early months of pregnancy.

Similarly, information on the place of pregnancy registration has been gathered from the respondents and presented in table 7.1. Place of registration is analyzed here in detail, so as to understand not only the level of health facility but also to understand whether women approach

these facilities within their area of jurisdiction or outside. Here the category 'within' refers to the facility which comes under their area of jurisdiction irrespective of its distance. As presented in the table the concentration of women registering their pregnancy is more (51 percent; with 55 percent among SC/ST and 49 percent among non-SC/ST category) at sub health centre of their own area, followed by PHC of their own area (14 percent; with 15 percent among SC/ST and 14 percent among non-SC/ST category). As expected, in comparison to Baseline survey, the proportion of women registered at HSC of their own area has increased from 29 percent to 51 percent in Endline. At the same time, the concentrations of women registered at PHC of their own area and at private facilities declined from 24 and 16 percent to 14 and 10 percent respectively. Similar trend has been observed in case of both SC/ST and non-SC/ST category women.

Further, all the women were asked about who motivated them to go for pregnancy registration and responses are presented in table 7.1 by sampling domain. Around 41 percent of the women reported ASHA as the main motivator for the registration of pregnancy, indicating sharp increase from only 13 percent in Baseline, followed by none/self (12 percent), ANM/Nurse (10 percent), husband (9 percent). Significant differences have been observed between the survey period as well as between SC/ST and non-SC/ST. Proportion of women who had mentioned 'ASHA' and 'none/self' as source of motivation have increased over the time, while the women who mentioned 'ANM/Nurse', 'AWW', 'doctor', Husband', etc. have declined. Interestingly, proportion of women who reported frontline health workers (ASHA, ANM/Nurse, and AWW) as source of motivation is more among SC/ST category and sources like doctor, husband, other family members and none/self is more among non-SC/ST category.

7.2 ANC checkup

The number of antenatal care visits and the timing of first visit are important for the health of the mother and the outcome of pregnancy. Hence, all women were asked about the total number of antenatal care visits they had made and when was their first ANC visit. Table 7.2 presents the proportion of women received ANC care, timing of first ANC visit, number of facilities visited and place of ANC checkup by sampling domain.

Table 7.2: Percentage of eligible women who had a pregnancy outcome in the past 3 years according to the details of ANC checkups, by sampling domain

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women	2499	1321	1178	2337	1205	1132
Prop. of women received at least one ANC checkup *(p<0.001)*	92.2	91.1	92.9	95.1	94.4	95.5
Timing of first ANC checkup *(p<0.001)*						
I trimester	64.1	60.9	65.9	72.6	68.3	75.3
II trimester	25.1	25.8	24.6	20.5	23.8	18.4
III trimester/During delivery	2.9	4.3	2.2	2.0	2.2	1.8
Received 3+ ANC checkups *(p<0.001)*	74.6	72.0	76.0	80.5	77.1	82.9
No. of facilities visited for ANC checkups						
1	34.3	31.5	35.8	24.4	24.2	24.5
2	38.9	38.7	39.0	46.6	43.6	48.6
3+	18.9	20.9	17.9	24.0	26.4	22.3
Place of ANC checkup						
Private/NGO hospital	76.7	70.0	80.4	78.8	70.7	84.0
PHC	41.4	43.4	40.3	40.1	43.2	38.1
Sub Centre	24.3	30.7	20.7	40.7	42.5	39.5
CHC	11.4	11.0	11.6	10.0	11.7	9.0
Taluka Hospital	11.0	10.5	11.2	14.1	16.8	12.4
District Hospital	6.6	10.2	4.5	6.7	6.7	6.6
Other public hospital	0.6	0.4	0.7	0.7	0.5	0.8
Other	2.6	2.7	2.5	0.8	0.8	0.8
Home	0.7	0.6	0.7	0.2	0.2	0.2

χ2 p values refer to ALL between Baseline and Endline survey

Overall 95 percent of the women, slightly higher proportion comparing to Baseline survey (92 percent) had received at least one ANC checkup during their previous pregnancy. Similarly, during the same time the proportion of women who had received three and more ANC checkups has increased from 75 percent to 81 percent between the two rounds of survey. Significant differences have been observed between SC/ST and non-SC/ST category, the proportion of women received at least one ANC checkup and three and more ANC checkups is higher among non-SC/ST category, 96 and 83 percent compared to SC/ST category, 94 and 77 percent respectively.

Though the proportion of women who had received their first ANC checkup during first trimester of their pregnancy is still less than three- fourths, an increasing trend has been observed between Baseline and Endline (64 percent to 73 percent). Similarly, both belonging to SC/ST and non-SC/ST category recorded an increased trend from 61 and 66 percent in Baseline to 68 and 75 percent in Endline respectively, indicating though the proportion of women who do early registration has increased over the time, difference between the two social categories was still prevalent. At the same time, around five percent of the women had not received any ANC care as compared to eight percent during Baseline, and this is true in case of both SC/ST and non-SC/ST categories but with a prevalent difference of around two percentage points between the two categories.

Next interesting aspect regarding ANC checkups is number of facilities visited by the pregnant women. The analysis regarding number of facilities visited for ANC checkup gives information on switching over of the facilities by a pregnant woman; it may be because of movement to maternal home, dissatisfaction with an earlier facility or due to the referral services. Table 7.2 presents the proportion of women visited 1, 2 or 3 and more facilities for ANC by sampling domain. Around 24 percent of the women had received ANC services from only one facility and 47 percent had received from two facilities and remaining 24 percent of the women had got ANC checkups from 3 or more health facilities. The proportion of women who had received ANC services from two or more facilities has increased over the period, whereas proportion of women who have received ANC services from only one facility has declined. Interestingly, the proportion of women received ANC services from 3 or more facilities is more among SC/ST category than their counterparts and this true in case of Baseline also.

Place of ANC checkup is also an interesting aspect of antenatal care. Results presented in table 7.1 indicates that, registration of pregnancy was more at public hospital, particularly at HSCs, than private facilities; while for ANC care services more women visited private hospitals. Around 79 percent of women had received ANC services from private/NGO hospitals, whereas, 41 and 40 percent of women had visited HSC and PHC respectively. Significant difference has been observed between SC/ST and non-SC/ST women. The proportion received ANC services from private/NGO hospital were higher among non-SC/ST category, while the proportion received ANC care from public facilities were higher among SC/ST category. Another important finding was that, the proportion of women received ANC services from private/NGO hospital,

HSC and Taluka hospital have recorded increasing trend, whereas, facilities like PHC and CHC have recorded a decreasing trend.

Overall result presented in table 7.2 clearly indicates that, though improvement has been recorded over the period, still significant proportion of women, especially those belonged to SC/ST category, either do not get ANC checkups or get delayed or few checkups than their counterparts.

7.3 ANC Services

Further, to get the information regarding quality of services received during ANC checkups, a series of questions were asked to the women like whether they had received services related to physical examination, on different tests done, immunization and medication given and counseling and advice related services in each of the facilities visited by them separately. For each and every services responses have been recorded as "Yes spontaneous" if the woman responds herself, "Yes probed" if responds after reading each services; for the analysis purposes the responses both spontaneous as well as probed have been clubbed and presented in table 7.3 by type of services received by the women during their last pregnancy according to sampling domain.

Under physical examination conducted during ANC, five examinations have been listed and asked for each one of them separately. Among them most of the women (93 percent) mentioned that their BP was measured atleast once, followed by abdominal examination (86 percent), weight measured (86 percent), and only 67 and 54 percent mentioned that 'fetal heart rate' and 'height measured' respectively. Results also indicate that, the increased proportions have been recorded for each of the physical examination generally, but the proportion increased recorded was more for 'fetal heart rate' examination over the time between Baseline and Endline survey. Analysis done by sampling domain revealed that, the proportion of women recorded for each and every physical examination done were higher among non-SC/ST category than their counterparts. Similarly, analysis on information regarding various tests done during the ANC checkup revealed that, majority of the women had received Hb test (89 percent), followed by blood test for HIV (84 percent), sonogram/ultrasound (81 percent), blood test for blood group (76 percent), blood test for sugar (64 percent) and it was the lowest for urine test for protein/UTI (49 percent).

Table 7.3: Proportion of women received ANC services among those who had a pregnancy outcome in the past 3 years, according to sampling domain

	Baseline			Endline		
ANC services	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women	2499	1321	1178	2337	1205	1132
Physical examination done at least once						
Height measured	52.2	52.4	52.0	53.7	53.6	53.8
Weight measured	80.0	78.4	80.9	86.3	84.7	87.3
BP measured	86.2	84.3	87.2	92.6	91.8	93.2
Abdomen examined	78.9	76.7	80.1	86.4	85.2	87.3
Fetal heart rate measured	38.8	36.1	40.4	67.3	65.6	68.5
Tests done at least once						
Hb measured	76.4	76.5	76.4	89.0	85.9	91.1
Blood test for HIV	64.7	65.4	64.4	83.8	80.8	85.8
Blood test for Blood group	51.8	51.9	51.8	76.3	72.0	79.0
Blood test for sugar	30.6	32.5	29.4	64.1	59.2	67.2
Urine test for protein/UTI	23.8	24.7	23.4	49.1	43.6	52.6
Sonogram/Ultrasound	59.7	53.4	63.1	81.3	75.5	85.1
Immunisation and Medication						
TT given at least once	85.9	83.6	87.1	88.4	87.2	89.2
IFA given at least once	81.9	80.3	82.8	84.7	84.4	85.0
Deworming	17.8	13.2	20.3	13.9	12.1	15.0
Treatment for Malaria	8.9	8.1	9.3	8.8	6.9	9.9
Counseling/Advice						
Danger signs	19.7	21.3	18.9	34.7	33.3	35.5
Birth planning	29.9	29.5	30.1	38.1	37.1	38.7
Breast feeding	38.9	38.6	39.2	48.6	47.3	49.5
Keeping baby warm	35.5	34.2	36.3	44.4	44.2	44.6
Nutrition	63.1	63.7	62.8	68.4	67.1	69.3
Cleanliness	39.8	36.9	41.4	54.1	50.8	56.3
Birth spacing	15.0	11.8	16.8	27.1	25.1	28.3
Birth limiting	12.0	10.1	13.0	27.0	27.8	26.5
Next checkup date	35.5	31.5	37.6	51.7	48.6	53.8
Health schemes	10.7	11.7	10.1	22.4	22.4	22.5
Service provider						
ASHA	1.9	1.3	2.2	6.6	7.5	6.1
ANM	65.1	66.8	64.2	64.6	67.1	63.0
Anganawadi worker	2.1	2.7	1.7	2.6	2.4	2.8
Doctor	81.8	78.0	83.9	85.9	82.7	88.0
RMP	1.0	0.9	1.0	0.4	0.5	0.3

At the same time, increase in the proportion of women who had received different tests has been observed in the Endline compared to Baseline. In case of SC/ST and non-SC/ST category, same trend has been observed as in that of doing physical examinations. Services regarding immunization and medication during ANC checkups are presented in table 7.3. Results show that around 88 (with 87 percent SC/ST and 89 percent non-SC/ST) and 84 percent (with 84 percent SC/ST and 85 percent non-SC/ST) of women reported that they had received TT injection and IFA tablets at least once respectively in Endline as compared to 86 (with 84 percent SC/ST and 87 percent non-SC/ST) and 82 percent (with 80 percent SC/ST and 83 percent non-SC/ST) in Baseline. Only 14 percent of the women had received deworming and another 9 percent had received medication against Malaria as compared to 18 and 9 percent in Baseline survey respectively. This clearly indicates an increasing trend in getting all the ANC services except deworming and treatment for Malaria, and same trend has been observed in both SC/ST and non-SC/ST groups as in case of earlier mentioned ANC services like physical examination and tests done.

The aspect of counseling and advice during ANC checkup was poor as compared to other aspects of ANC checkups. Though the proportion of women who had received counseling and advice during ANC checkups on different topics increased over the time, but still it is poor as compared to the proportion of physical examination and tests done. Only the topics like ‘nutrition’ (68 percent), ‘cleanliness’ (54 percent) and ‘next checkup date’ (52 percent) was reported by more than 50 percent of the women. Other important topics like ‘birth spacing’ and ‘birth limiting’ have been reported by only about one-fourth of the women. As expected, for all the topics the proportion of women who had received counseling and advice were higher among non-SC/ST category compared to their counterpart.

7.4 Service provider

All women were further asked on from whom they had received the ANC services. As high as 86 percent of the women reported that they had received antenatal care from doctors and 65 percent had received antenatal care from ANMs and interestingly seven percent of women received antenatal care from ASHAs, and three percent from Anganawadi workers. Women who had received antenatal care from doctors were higher among non-SC/ST category, whereas the

percentage of women who had received antenatal care from ANMs was more among SC/ST category.

7.5 IFA supplementation

Important elements of antenatal care include the provision of iron supplementation for pregnant mothers, two doses of tetanus toxoid vaccine and a drug to get rid of intestinal worms. Nutritional deficiencies among women are often exacerbated during pregnancy because of the additional nutrient requirements for foetal growth. Iron deficiency anaemia is the most common micronutrient deficiency all over the world. It is a major threat to safe motherhood and to the health and survival of infants because it contributes to low birth weight, lowered resistance to infection, impaired cognitive development and decreased work capacity. The provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia forms an integral part of the safe motherhood services offered as part of the Reproductive and Child Health Programme in India. The programme recommendation is that women should consume 100 tablets of iron and folic acid during their pregnancy.

For the most recent birth during the three years preceding the survey, in both the Baseline and Endline survey, collected information on whether the women received IFA tablets or syrup during their pregnancy. IFA syrup was included in the question along with IFA tablets since IFA syrup is sometimes prescribed in the private sector and may even be prescribed in the public sector when and where tablets are not available. Table 7.4 shows that 84 percent of the women had received IFA tablets and only 34 percent had received IFA syrup during Endline. Same trend was observed in Baseline survey. However, proportion not receiving any IFA supplementation has reduced from 18 percent during Baseline to 15 percent during Endline. Percent reduction is more prominent among SC/ST women than that among non-SC/ST women. However, only 30 percent (22 percent in Baseline) had received the programme recommended quantity (atleast 100 tablets). Though, the proportion of pregnant women received IFA tablets and syrup had increased in both the categories, still higher proportion of women do not receive 100+ IFA tablets and it is higher among SC/ST category comparing their counterpart.

When it comes to actual consumption of IFA tablets, only 24 percent of the women had consumed 100 or more IFA tablets during their entire pregnancy found in Endline, it was only 14 percent in the Baseline. The proportion of women who had not consumed any IFA tablets has reduced though slightly and it is higher among SC/ST category, while the proportion of women who have consumed 100 or more tablets were higher among non-SC/ST category.

To put it in another way the analysis has been done as 'self-reported consumption of IFA' making categories like 'not received at all', 'received and consumed all', 'received but not consumed some', and 'received but not consumed at all'. Results show that, around 15 percent of the women had not at all received IFA supplementation as compared to 18 percent in Baseline, and higher proportion among SC/ST category. The proportion of women received and consumed all IFA has increased from 42 percent in Baseline to 52 percent in Endline, indicating increasing trend that women consume all the tablets/syrup received,; suggesting that tendency of consumption of IFA tablets is improving. Proportion of women received IFA and consumed all was higher among non-SC/ST category, while 'not received any IFA' and received IFA and consumed some or consumed not at all were higher among SC/ST category. However, the increase was significantly more in the SC/ST group on consumption of all IFA tablets/syrup received.

Further, to understand the reasons for not consuming IFA supplementation though received, information was gathered by asking all those women who had received IFA tablets/bottles but not consumed all. Results presented in table 7.4 gives reasons for not consuming IFA that were received by them according to sampling domain. Among those women who had not consumed all the received IFA supplementation, 46 percent reported 'side effects' as the main reason for not consuming them, followed by 'foetus will grow big' (32 percent), 'don't like to take IFA' (19 percent), 'difficult to remember daily' (14 percent). Same opinion was observed in Baseline survey also, and not much variation has been recorded between SC/ST and non-SC/ST category in this regard.

Table 7.4: Percentage of eligible women who had a pregnancy termination in the past 3 years according to the details of IFA consumption, by sampling domain

	Baseline			Endline		
IFA supplementation	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women	2499	1321	1178	2337	1205	1132
Number of tablets received						
None	18.9	20.5	17.9	15.8	16.0	15.7
Less than 50	29.1	29.6	28.8	23.4	24.0	22.9
50-99	32.3	32.7	32.1	32.9	35.6	31.1
100+	19.6	17.0	21.0	27.3	24.0	29.4
Don't know	0.1	0.1	0.1	0.6	0.2	0.8
Number of bottles received						
None	71.8	74.8	70.0	65.7	67.3	64.7
1	14.8	13.7	15.4	16.5	17.3	16.0
2	8.6	8.7	8.5	10.5	9.5	11.1
3+	4.8	2.7	6.0	7.0	5.4	8.0
Don't know	0.0	0.0	0.0	0.1	0.1	0.1
Number of tablets consumed						
None	21.4	24.3	19.8	18.1	18.8	17.6
Less than 50	40.7	42.5	39.6	31.9	34.6	30.1
50-99	26.1	25.1	26.6	28.2	30.3	26.9
100+	11.7	7.8	13.8	20.4	15.5	23.7
Don't know	0.1	0.1	0.1	0.7	0.2	1.0
Number of bottles consumed						
0	74.2	77.7	72.3	17.8	18.1	17.6
1	14.1	12.3	15.1	15.5	16.7	14.8
2	7.6	7.4	7.7	10.0	8.7	10.8
3+	4.0	2.5	4.8	5.9	4.4	6.8
Don't know	0.0	0.0	0.0	0.1	0.1	0.1
Self-reported consumption of IFA *(p<0.001)*						
Not received any	18.3	19.7	17.4	15.2	15.6	15.0
Received and consumed all	42.0	37.9	44.2	52.4	49.6	54.2
Received but consumed some	36.4	37.9	35.5	29.3	31.2	28.0
Received but not consumed at all	3.4	4.4	2.9	3.1	3.7	2.8
Reason for not consuming IFA received						
No. of women not consumed IFA tab/syrup received	985	534	451	749	404	345
Difficult to remember daily	12.8	10.9	14.1	13.8	14.3	13.6
Fetus will grow too big	39.7	42.7	37.9	32.0	33.2	31.4
Problem during delivery	21.9	26.0	19.4	8.1	10.2	6.4
Side effects	35.9	36.3	35.7	45.7	44.4	47.0
Don't like to take IFA	32.5	35.8	30.6	18.7	20.5	17.5
No need to take IFA	10.6	9.5	11.0	8.4	6.8	9.5
Someone suggested not to take	9.1	11.4	7.7	6.2	9.0	4.1
Other	4.5	3.2	5.3	2.4	2.8	2.0
Don't know/Can't say	0.7	0.8	0.6	2.1	2.2	2.0

χ2 p values refer to ALL between Baseline and Endline survey

Chapter 8

Delivery Care

This chapter deals with details on delivery like place of delivery, type of delivery, duration of stay at hospitals after delivery. It also presents related information like mobility of women to their maternal home during delivery, transportation used to reach to the facilities during delivery. Further, details on home deliveries are also discussed in this section.

8.1 Movement during delivery

There is a tendency among pregnant women to go to their parents' home for delivery, particularly for first and second deliveries. The information such as what proportion of women moves to their mothers' place, when and where they go for delivery is important for policy point of view. In the survey, women who had delivered three years prior to the survey were asked on these and responses are presented in table 8.1. A large number (67 percent) of women had moved to their mother's house and one-third of them had stayed back at their usual place of residence in both Baseline and Endline survey (p=0.156). The tendency of moving to mother's place was found more among non-SC/ST than SC/ST. The movement of women to their maternal home was usually (57-58 percent) during in third trimester and mothers going to natal place in first or second trimester was only 10 percent. However, women going early months of pregnancy (before 8^{th} month) have decreased from 44 percent to 38 percent and tendency of moving while near to due date (9^{th} month) has increased from 23 percent to 30 percent between the surveys. As a proxy for the distance travelled by the women for delivery, place was categorized as within HSC, within Taluka, within district, within state or outside state. Data showed that women seemed to have travelled considerable distance to reach mother's place for delivery as nearly half of the women in both the surveys told that they had moved either outside PHC or outside taluka or outside district but within state for delivery.

Table 8.1: Percentage of eligible women who had delivered during previous 3 years according to migration details for delivery by sampling domain

Movement details	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women delivered	**2352**	**1251**	**1101**	**2181**	**1144**	**1037**
Movement for delivery (*p=0.156*)						
Not gone any where	32.9	37.4	30.5	32.2	36.8	29.2
Gone to mother's house	66.6	62.3	69.1	66.9	62.7	69.6
Gone to relative's house	0.5	0.4	0.5	1.0	0.5	1.3
Month of pregnancy moved out						
<6 months	9.6	12.2	8.2	9.3	9.7	9.0
7th month	11.3	11.0	11.4	10.0	10.2	10.0
8th month	22.8	18.2	25.3	18.5	15.2	20.6
9th month	23.2	21.0	24.3	29.7	27.7	31.0
DK/Missing	0.0	0.1	0.0	0.4	0.5	0.3
Area moved						
Within same SC area	10.7	10.4	10.9	8.0	7.9	8.0
Outside SC but within PHC	4.1	5.5	3.3	3.3	4.3	2.7
Outside PHC but within Taluka	18.8	18.4	18.9	18.2	17.3	18.8
Outside Taluka within district	15.8	13.9	16.9	20.3	19.7	20.8
Outside district within state	13.3	9.2	15.5	14.0	10.8	16.1
Outside state	4.1	4.8	3.9	3.7	2.9	4.3
Missing	0.3	0.4	0.3	0.2	0.2	0.2

χ^2 p values refer to ALL between Baseline and Endline survey

8.2 Place of delivery

Institutional deliveries increased from 74 percent to 82 percent during the two survey periods ($p<0.001$). While share of government facilities has not changed much (54 in Baseline to 56 percent in Endline), the share of private facilities in conducting deliveries has increased substantially (from 19 percent to 25 percent) between the two rounds of surveys.

Table 8.2: Percentage of eligible women who had delivered during last 3 years according to place of delivery by sampling domain and district

Place of delivery	Number	HSC	PHC	CHC	TH	DH	Pvt.	Other	Home
Baseline									
All (p<0.001)	**2352**	1.5	23.8	8.9	12.7	6.8	19.1	1.0	26.2
Caste/Tribe									
SC/ST	**1251**	0.7	23.7	8.1	12.2	10.5	13.2	1.0	30.4
Non SC/ST	**1101**	1.9	23.8	9.4	13.0	4.7	22.4	1.0	23.8
District									
Bagalkot	**299**	0.7	21.1	10.4	10.8	2.9	28.0	0.4	25.4
Bijapur	**361**	1.0	19.3	5.4	15.7	3.6	27.8	0.8	26.5
Bidar	**247**	0.0	17.4	15.0	15.9	16.9	25.6	1.4	7.7
Raichur	**302**	0.4	24.0	6.5	12.2	6.5	14.4	1.1	34.6
Koppal	**256**	5.8	28.1	18.1	5.8	2.3	11.1	1.0	27.9
Bellary	**290**	1.0	28.3	2.9	13.1	10.5	13.4	0.6	30.3
Gulbarga	**389**	0.3	19.4	7.1	18.7	10.5	19.0	1.0	23.5
Yadgir	**208**	0.9	32.0	5.0	11.4	5.9	15.1	2.3	27.9
Endline									
All	**2181**	0.3	23.7	7.5	15.5	9.6	25.0	0.8	17.7
Caste/Tribe									
SC/ST	**1144**	0.6	25.5	8.2	18.6	8.6	15.5	0.9	22.1
Non SC/ST	**1037**	0.2	22.5	6.9	13.5	10.3	31.3	0.7	14.8
District									
Bagalkot	**233**	0.4	17.5	1.3	17.5	10.3	43.9	1.3	8.1
Bijapur	**327**	0.7	20.1	5.6	11.9	6.3	38.6	1.3	15.8
Bidar	**260**	0.0	26.1	10.1	20.3	14.1	24.3	1.1	4.0
Raichur	**295**	0.9	24.6	6.5	6.5	11.4	17.5	0.9	31.1
Koppal	**251**	0.0	22.6	15.8	16.7	7.2	19.0	0.0	18.1
Bellary	**273**	0.3	27.5	4.2	20.8	9.9	14.7	0.3	22.4
Gulbarga	**355**	0.0	22.6	9.5	16.1	7.1	24.1	0.9	19.3
Yadgir	**187**	0.5	28.5	7.0	16.7	11.3	19.4	0.0	16.7

χ^2 p values refer to ALL between Baseline and Endline survey

Though noticeable decline has been observed in home deliveries between the two surveys, (26 to 18 percent), home deliveries are still higher among SC/ST compared to non-SC/ST (22 percent against 15 percent). Within public facilities, PHCs accounted for about one-fourth (24 percent) of the deliveries and deliveries occurring at HSCs have declined to almost nil between the two surveys. While Yadgir district tops in PHC deliveries, Koppal tops in CHC deliveries, Bidar has highest deliveries in DH and Bagalkot has more number of deliveries in private facilities in both

the surveys. An increase in institutional deliveries has been seen in all the districts in the project area, a sharp decline in home deliveries was observed in these districts since Baseline survey. The highest decline (68 percent) in home deliveries was observed in Bagalkot district followed by Bijapur and Yadgir districts (40 percent each). The Raichur district, on the other hand, has experienced the least decline (10 percent) since Baseline and about one-third (31 percent) of deliveries were accounted for home deliveries at Raichur even during Endline survey.

Table 8.3 gives percent distribution of births in the three years preceding the survey by place of delivery according to selected background characteristics. Birth order, year of birth and household wealth index seems to have negative association with place of delivery especially home deliveries. The proportion of births that were delivered in government or private health facility decreases as birth order increases in both the surveys. On the other hand, the proportion of births occurred at home increased more than thrice as birth order increases, from 7 percent at order one to 26 percent at order 3 and above.

Table 8.3: Percent distribution of births during the past 3 years according to place of delivery, by selected background characteristics

Particulars	Baseline				Endline			
	N	Home	Pvt.	Govt.	N	Home	Pvt.	Govt.
All	2352	26.2	19.1	54.7	2181	17.7	25.0	57.3
Gravida								
1	680	13.5	24.4	61.9	552	7.1	34.7	58.2
2	668	22.0	20.6	57.2	670	15.9	23.8	60.3
3+	1004	36.9	14.7	48.3	959	25.6	19.7	54.7
Birth year								
Previous one year	1039	19.9	21.5	58.5	925	15.0	27.1	57.9
Previous second year	806	27.0	17.7	55.3	804	18.0	25.5	56.6
Previous third year	507	36.7	16.7	46.7	452	22.7	19.6	57.7
Wealth Index								
Low	742	34.3	11.0	54.6	649	28.1	14.0	57.9
Medium	767	28.1	16.4	55.6	730	16.2	22.2	61.6
High	837	17.9	28.2	53.9	794	11.6	34.7	53.7

An increase in institutional deliveries and decrease in home deliveries has been observed for the births occurred in the previous three years. Institutional deliveries, particularly in private

facilities, have increased sharply from 20 percent in three years before the survey to 27 percent in previous one year. Similarly, home deliveries which were 23 percent three years before the survey declined to 15 percent one year preceding the survey.

The wealth index seems to have more influence on private sector deliveries as well as deliveries at home and least influence on deliveries which occurred at public facilities in both Baseline and Endline survey. The proportion of births in private facilities is highest among women with high wealth index and decreased with decline in wealth index. On the other hand, women with low wealth index were twice more likely to deliver at home than women with high wealth index.

8.3 Type of delivery

Table 8.4 provides details on type of delivery by place of delivery. Of the total deliveries occurred, majority were normal. A slight decrease in normal deliveries and an increase in C-section deliveries was observed between the surveys ($p<0.002$). While almost all deliveries occurred at HSCs, PHCs, CHCs and THs were normal, the proportion of normal deliveries were comparatively less in DH and in private facilities. One in six deliveries occurred in DH and more than one in three deliveries in private facilities were of C-section deliveries. While C-section deliveries in PHC, CHC and TH have declined, a slight increase in this proportion was observed in DH and private facilities between the surveys.

Table 8.4: Percentage of eligible women who had delivered during last 3 years according to type of delivery by place of delivery

Type of delivery	Baseline				Endline			
	Number	Normal	Ceasarean	Assisted	Number	Normal	Ceasarean	Assisted
All *(p=0.002)*	2352	89.5	9.6	0.9	2181	86.9	12.6	0.5
HSC	25	100.0	0.0	0.0	6	100.0	0.0	0.0
PHC	549	98.8	0.9	0.5	535	99.2	0.6	0.0
CHC	189	91.9	7.6	0.0	184	98.2	1.8	0.0
TH	332	94.3	3.7	2.0	349	93.2	6.8	0.0
DH	154	83.8	16.3	0.0	202	80.4	18.2	1.4
Private	466	61.1	36.1	2.7	523	60.6	37.9	1.3
Other	27	79.2	16.7	0.0	17	88.2	11.8	0.0
Home	608	100.0	0.0	0.0	365	100.0	0.0	0.0

χ^2 *p* values refer to ALL between Baseline and Endline survey

8.4 Transportation used to reach facility

With a view to promote institutional deliveries, free transport through ambulance and 108 services has been introduced by the government to help pregnant women to reach to the facility for delivery in time. Table 8.5 provides the details on transportation used by women to reach facility for delivery. It is observed that one in five women used ambulance or 108 to reach facility and proportion used ambulance or 108 vehicles was more (24 percent) among SC/ST than non-SC/ST (18 percent). Further, one in three women had reached the facility through tempo or auto or tractor. An improvement 20 percent to 27 percent between the survey rounds in the proportion of women who had used ambulance/108 to reach to the health facility has been observed.

Table 8.5: Percentage of eligible women who had delivered during last 3 years according to transportation used to reach facility for delivery by sampling domain

	Baseline			Endline		
Transportation	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
No. of women delivered	**2352**	**1251**	**1101**	**2181**	**1144**	**1037**
Ambulance	6.8	8.9	5.6	9.3	9.6	9.1
108	13.0	15.0	11.9	18.0	19.7	16.9
Car	3.7	2.5	4.3	3.8	1.4	5.3
Two wheeler	2.5	1.1	3.2	3.5	2.8	4.0
Bus	5.4	3.5	6.5	5.0	3.1	6.3
Tempo/Auto/Tractor	33.4	30.8	35.0	36.9	36.2	37.3
Cart	0.1	0.2	0.0	0.2	0.0	0.3
Foot march	7.5	6.2	8.3	4.3	4.4	4.2
Other	1.5	1.6	1.5	1.3	0.7	1.7

8.5 Duration of stay at facility

Duration of stay at facility after delivery has an impact on health of the mother and the newborn. It is recommended that a delivered woman needs to stay at facility atleast for 48 hours which helps to provide proper postnatal care and also helps to manage neonatal complications. All eligible women who had delivered in the facility during last 3 years were asked about duration of stay in the hospital after delivery and responses are presented in table 8.6. A statistically significant decline in the proportion of women stayed for less than 48 hours is observed between

the surveys, from 54 percent in Baseline to 46 percent in the Endline ($p<0.001$). Further, among those stayed for less than 48 hours, large percentage of women had stayed less than 24 hours in both the surveys.

Table 8.6: Percentage of eligible women who had delivered at facilities during last 3 years according to the duration of stay at facility after delivery, by selected characteristics

Particulars	Baseline					Endline				
	No. of Institutional deliveries	< 1 day/ 24 hours	24 to< 48 hours	2 -7 Days	> 7 Days	No. of Institutional deliveries	< 1 day/ 24 hours	24 to< 48 hours	2 -7 Days	> 7 Days
All (*p<0.001)*	1742	38.5	15.1	38.5	7.8	1816	29.7	16.2	45.7	8.4
Place of delivery										
HSC	25	66.7	30.6	2.8	0.0	6	42.9	28.6	28.6	0.0
PHC	549	52.8	17.4	29.7	0.0	535	43.7	21.5	34.6	0.2
CHC	189	47.9	18.0	31.3	2.8	184	42.3	21.5	35.6	0.6
TH	332	41.0	15.7	39.7	3.7	349	27.1	17.1	52.8	3.2
DH	154	22.5	13.8	49.4	13.8	202	18.7	14.8	52.2	14.8
Private.	466	18.1	10.2	50.4	21.0	523	18.3	9.3	52.9	19.4
Other	25	30.4	4.3	52.2	0.0	17	29.4	23.5	41.2	5.9
Caste/Tribe										
SC/ST	892	41.4	13.6	36.9	7.8	928	30.0	19.6	44.3	5.9
Non SC/ST	850	36.9	15.8	39.3	7.8	888	29.5	14.1	46.6	9.8
Type of delivery										
Normal	1513	44.3	17.4	36.2	2.1	1542	35.3	19.0	44.0	1.7
Ceasarean	210	0.9	0.0	53.1	46.0	265	0.0	1.1	54.5	44.7
Assisted	17	33.3	9.5	57.1	0.0	9	0.0	9.1	63.6	27.3

X^2 p values refer to ALL between Baseline and Endline survey

The duration of stay by place of delivery revealed that the propensity to discharge early was found to be highest for those deliveries occurred at HSCs and proportion decreases with the increase in the level of facility: from 65 percent early discharge in PHC to 64 percent in CHC to 44 percent in TH and to 34 percent in DH. However, proportion of women discharged before 48 hours was found comparatively less for those deliveries occurred in private facilities. Both the surveys showed women belonging to SC/ST were more likely to stay for a period of less than 48 hours than women belonging to non-SC/ST.

8.6 Home delivery

To ensure safe motherhood it is recommended that all deliveries, occurring at facility or at home, should be conducted under the supervision of skilled birth attendant. For those women who had delivered at home were asked who had conducted the delivery, whether protocols of safe delivery were followed while conducting delivery and reason/s for home delivery. Responses are presented in table 8.7.

Half of the women who delivered at home reported that their delivery had been conducted by Dai and a little more than one-third (37 percent) told that their delivery was conducted by relatives and friends in the Baseline survey. However, a decrease in proportion deliveries conducted by Dai and an increase in deliveries conducted by relatives/friends has been observed between the surveys. A slight increase in the proportion of deliveries attended by ANM and ASHA was observed since Baseline survey.

The protocols such as using DDK/Mamta kit during delivery, keeping baby warm after delivery and use of new/sterilized blade to cut umbilical cord are to be followed to ensure safe motherhood. The proportion reported to have used DDK/Mamta kit during delivery declined between surveys but, was not statistically significant ($p=0.132$). However, proportion reported baby was wiped and wrapped increased significantly from 60 percent to 67 percent between the survey ($p<0.01$). High proportion (more than 90 percent) of women admitted that new/sterilized blade was used to cut umbilical cord and proportion reported this is high among non-SC/ST compared to SC/ST women which is statistically significant ($p<0.01$).

Regarding reasons for home delivery, 'no time to go to facility' as delivery occurred by that time and going to facility for delivery was 'not necessary' since previous deliveries of herself/in the household were normal were the main reasons reported in both the surveys. However, women reported 'not necessary' to go to facility for delivery has declined from 53 percent in Baseline to 29 percent in the Endline survey- indicates changing attitudes of women towards home delivery. It is also to be noted that cost and transport related reasons for having home deliveries has declined between surveys and may be due to awareness of schemes. Postnatal check-ups within 48 hours of delivery are particularly important for births that take place at home. An assessment of extent of post-natal check-up received by women within 48 hours of delivery revealed that only about one-third (33 percent) of women had received check-ups and slight increase was

observed since Baseline. Women who received post-natal check-ups were higher among non-SC/ST compared to SC/ST but, differences were insignificant (p=0.333).

Table 8.7: Percent distribution of women delivered at home during last 3 years by particulars

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women delivered at home	**608**	**357**	**251**	**365**	**216**	**149**
Person conducted the delivery						
Doctor	5.7	4.3	6.6	3.4	1.6	5.2
ANM/Nurse/LHV	2.8	2.4	3.0	3.1	3.6	2.6
ASHA	0.6	0.4	0.8	2.1	1.6	2.6
Dai	50.2	53.1	47.9	31.3	27.1	35.6
RMP	2.6	2.4	2.8	2.3	2.6	2.1
Relatives/Friends	36.6	36.2	36.9	50.0	56.8	43.8
Other	1.0	0.8	1.1	4.9	3.1	6.7
No one	0.5	0.4	0.6	1.3	1.0	1.0
Missing	0.2	0.0	0.3	1.3	2.6	0.0
DDK/Mamta kit used (*p=0.132*)	13.4	11.4	14.9	11.4	8.3	14.4
Wiped and wrapped the baby (*p=0.002*)	59.9	56.7	62.3	67.1	60.9	73.2
Used new/sterilized blade (*p=0.005*)	94.7	94.5	95.0	89.9	85.9	93.8
Reasons for home delivery						
Cost too much	3.1	3.1	3.0	1.0	0.5	1.5
Poor quality service	1.8	2.8	1.1	2.6	2.1	3.6
Too far/no transport	7.4	6.3	8.5	4.7	5.2	4.6
No time to go	45.5	47.2	44.4	52.3	45.3	58.8
Not necessary	53.2	52.8	53.7	29.3	31.3	27.3
Not customary	1.8	3.1	1.1	1.8	1.6	2.1
Better care at home	19.7	20.9	19.0	16.1	18.8	13.4
Family did not allow	6.0	5.5	6.3	5.2	5.7	4.6
Lack of knowledge	6.5	5.5	7.2	2.1	3.1	1.0
Other	8.1	11.0	6.1	6.5	6.8	6.2
Received checkup within 48 hours after delivery (p=*0.333*)	32.5	27.2	36.4	37.0	29.7	44.3

χ^2 p values refer to ALL between Baseline and Endline survey

Chapter 9

Postnatal care

This section covers information on type of post-natal checkups received by the women after their most recent delivery within 3 years preceding the survey, and on breastfeeding practices.

9.1 PNC care

Table 9.1 gives information on the proportion of women received PNC care after their delivery and also how many of them received PNC care specifically on 3rd day and 7th day of delivery. Overall 53 percent of the women had received PNC care after the delivery during Baseline and it has increased significantly (80 percent) during Endline. Not much variation was observed between SC/ST and Non SC/ST women in getting PNC services during Baseline. However, during Endline it was slightly higher among Non-SC/ST women. Receiving PNC care after delivery was the highest among those delivered at DHs (70 percent), followed by private hospitals (66 percent), HSCs (47 percent) and was the lowest among home deliveries (40 percent) during Baseline. After 3 years, significant increase has been observed in all the health facilities in providing the PNC care (more than 90 percent in TH and Private hospitals and more than 80 percent in remaining health facilities).

Specifically for getting PNC care on 3rd day and 7th day of delivery, it is observed that PNC care on 3rd day of delivery increased from 32 percent to 44 and that of 7th day of delivery increased from 16 percent to 18 percent between the two surveys. The differences were statistically significant. Larger proportion of women among Non-SC/ST category received PNC care on 3rd and 7th day of delivery compared to their counterparts.

Getting PNC care on 3rd day of delivery has increased in all the health facilities irrespective of its type. However, with regard to PNC care on 7th day it has increased from 35 percent to 40 percent at private hospitals and has decreased in all the public health facilities. The above discussion clearly indicates still one-fifth of the women do not get any PNC care and getting PNC care on 3rd day and 7th day is still far from satisfactory level. Getting PNC care is comparatively better at

Private hospitals. Among all the districts of project area Bagalkot, Gulbarga, Koppal and Bijapur have shown drastic improvement in providing PNC care where as it has reduced in Yadgir.

Table 9.1: Proportion of women delivered during the last 3 years received any PNC care according to caste and place of delivery

Particulars	Baseline				Endline			
	Number	Prop. Received PNC care*	Prop. Received PNC care on 3rd day of delivery*	Prop. Received PNC care on 7th day of delivery*	Number	Prop. Received PNC care*	Prop. Received PNC care on 3rd day of delivery*	Prop. Received PNC care on 7th day of delivery*
ALL	2352	52.9	32.1	15.5	2181	79.6	44.4	17.8
Caste/Tribe								
SC/ST	1251	53.1	34.0	14.4	1144	77.3	40.6	13.9
Non SC/ST	1101	52.8	31.0	16.0	1037	81.0	46.8	20.3
Place of delivery								
HSC	25	47.2	25.0	16.7	6	85.7	42.9	14.3
PHC	549	54.6	32.7	9.6	535	84.7	34.6	7.4
CHC	189	49.3	27.0	11.8	184	85.3	38.7	9.8
TH	332	51.0	29.0	13.7	349	90.6	53.4	11.8
DH	154	70.0	49.4	25.6	202	80.4	50.2	24.9
PVT	466	65.9	48.7	34.5	523	91.9	67.0	40.3
Other	27	62.5	50.0	4.2	17	76.5	58.8	11.8
Home	608	39.5	17.8	6.8	365	42.2	16.1	5.2

*p<0.001 ($\chi 2$ p values refer to ALL between Baseline and Endline)

9.2 Places visited for PNC

Among those women who had experienced a live birth during last 3 years, 24 percent had visited private facilities for getting PNC checkup and 12 percent had gone to PHCs during Baseline (Table 9.2). Same trend has been maintained in Endline also as 30 percent had got PNC services from private sector and 21 percent had received the services from PHCs. Comparatively more women belonged to non-SC/ST category visited private hospitals than SC/ST women, whereas SC/ST women found to visit PHCs and THs for PNC care more often than their counterparts. Women receiving PNC checkup at home was less than 5 percent.

9.3 PNC services for the mother and newborn

Some of the scheduled six PNC visits are for the woman and some of them are for the newborn. In addition, service provider is expected to give some advice/counseling on family planning, breastfeeding, nutrition, baby care etc. during PNC visits.

All the 5 services which are expected to be provided to the mother during PNC checkup have increased. Proportion of women who reported that BP was measured at least once has increased from 34 per to 64 percent, examination of abdomen has increased from 35 percent to 57 percent and proportion who got the breast examination has increased from 28 percent to 50 percent between the two rounds of surveys. Proportion reported that lochia examination was done more than doubled from 9 percent to 21 percent. Type of PNC services received by the women was slightly high among Non-SC/ST women compared to other category.

With regard to services which are expected to be provided for the newborn during PNC checkup, substantial increase has been observed between Baseline and Endline for all the services. Many of these services have increased more than 4 times like for example, newborns getting enquired for urine and passing of stool has increased from 11 to 45 percent, newborns checked for respiration has increased from 12 to 43 percent, checking for temperature and jaundice increased from 11 to 43 percent. Not much variation is observed between SC/ST and non-SC/ST women in this regard.

When it comes to receiving of advice or counseling, more than 50 percent of the women reported that they were advised on baby care, breast feeding, nutrition and immunization, which were just around one-fourth during Baseline. Receiving advice on family planning and next checkup are almost doubled between the two rounds. Doctors provided PNC services for 61 percent of the women and for 43 percent of the women services were provided by ANMs.

Table 9.2: Percentage distribution of women delivered during the past 3 years according to the particulars of PNC checkups

Particulars of PNC checkup	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number	2352	1251	1101	2181	1144	1037
Place of PNC checkup						
Sub Centre	2.9	5.0	1.8	1.0	1.0	1.0
PHC	11.9	12.5	11.6	21.4	23.1	20.2
CHC	4.2	4.2	4.2	6.7	7.9	5.9
TH	6.1	5.7	6.4	14.2	18.3	11.5
DH	5.0	7.2	3.7	7.7	7.5	7.8
Other public hospital	0.1	0.1	0.2	0.3	0.1	0.4
Private/NGO hospital	23.7	21.3	25.1	30.1	22.3	35.3
Other	0.4	0.5	0.3	0.2	0.6	0.0
Home	6.8	6.6	6.9	4.6	4.8	4.4
Services for mother						
BP Measured	34.1	32.3	35.0	64.2	59.8	67.1
Examined breast	28.3	27.4	28.7	50.4	48.0	51.9
Abdomen examined	34.5	33.8	34.8	56.5	54.7	57.7
Lochia examination	8.9	9.0	8.8	20.5	21.4	20.0
Referral services for women	1.7	1.6	1.8	6.0	5.9	6.2
Services for new born						
Clean cord care	30.1	30.4	30.0	62.6	61.1	63.7
Drying and warmth/Kangaroo	25.4	26.3	25.0	49.9	49.6	50.1
Weigh baby	32.7	33.7	32.2	69.4	67.5	70.6
Measure length of baby	16.1	15.6	16.4	42.1	38.6	44.4
Asked about urine & stool passing	10.6	10.8	10.5	44.7	44.3	45.0
Checked for respiration	12.4	11.9	12.7	42.8	42.9	42.8
Checked for temperature	11.3	10.4	11.9	43.2	41.8	44.1
Checked for jaundice	10.8	9.1	11.7	43.6	42.7	44.3
Oral polio/BCG	20.7	21.9	20.0	50.9	53.6	49.1
Referral services for child	3.1	4.0	2.7	6.7	6.2	7.0
Received advice /counseling						
Baby care	28.3	28.0	28.4	59.0	55.8	61.2
Family planning	12.7	13.5	12.2	36.4	33.6	38.3
Breastfeeding	26.8	27.5	26.3	50.2	48.7	51.2
Nutrition	27.9	27.9	27.9	50.2	50.5	50.0
Immunisation	26.2	26.9	25.7	51.6	50.3	52.5
Next checkup	12.0	10.4	12.8	26.8	26.5	27.0
Service Provider						
ASHA	0.8	1.1	0.7	2.2	2.4	2.0
ANM	28.2	30.2	27.2	42.7	44.9	41.1
AWW	0.4	0.1	0.5	0.3	0.2	0.3
Doctor	39.5	38.3	40.1	60.6	57.0	63.1
RMP	1.3	1.0	1.4	0.7	1.0	0.5

9.4 Birth weight of the newborn and breastfeeding

All the women who had delivered during 3 years preceding the survey were asked about whether the baby was weighed soon after the birth, and details on feeding colostrum, initiation of breast feeding and exclusive breastfeeding. Proportion of newborns whose birth weight was not measured reduced significantly during the three years period as only 14 percent of the women mentioned in Endline that their babies were not weighed soon after the birth compared to 23 percent during Baseline. Tendency of not weighing the newborns was more among SC/ST category than that among Non-SC/ST group (18 percent vs. 10 percent). Proportion of low birth weight babies was found to be almost same between the two rounds of surveys and between SC/ST category and non-SC/ST category.

As high as 87 percent of the women reported that they fed colostrum to their newborns and it was 75 percent during Baseline. Around 53 percent of women reported that they had initiated breastfeeding immediately or within one hour of birth and it has reduced compared to that of Baseline and, reduction is mainly due to late initiation of breast feeding among non-SC/ST women- especially those who had delivered at private hospitals. Another important issue to be considered relating to breastfeeding is duration of exclusive breastfeeding which should be 6 months ideally. Around 29 percent of the women had reported that they had exclusively breastfed their children up to 6 months during Baseline and it has reduced to 24 percent in Endline. More than half of the women had exclusively breastfed their children for less than 6 months.

Table 9.3: Percentage distribution of women delivered during last 3 years according to details on birth weight of the newborn and breastfeeding

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number	2280	1207	1073	2133	1124	1009
Prop. not weighed after birth (*p<0.001*)	22.9	28.2	19.9	13.5	18.1	10.4
Birth weight (Among weighed) *(p=0.030)*						
Less than 2.5 Kg	14.8	15.2	14.6	16.0	17.4	15.1
2.5 or more	82.5	81.7	82.9	82.5	80.3	83.8
Weight DK/missing	2.7	3.1	2.5	1.5	2.3	1.0
Prop. Fed colostrum *(p<0.001)*	75.3	75.4	75.3	86.6	85.0	87.6
Initiation of breastfeeding *(p<0.001)*						
Immediately/Within one hour	56.8	53.3	58.7	53.1	55.1	51.7
Within 24 hours	16.9	18.3	16.1	26.9	26.5	27.0
2 to 3 Days	15.1	17.8	13.5	11.4	10.8	11.8
After 3 days	9.7	9.2	10.0	6.6	6.1	7.0
Never breastfed	1.4	1.2	1.6	1.5	0.9	1.8
Duration of exclusive breastfeeding *(p<0.001)*						
Less than 6 months	53.2	54.0	52.8	57.0	55.7	57.9
6 months	28.8	27.8	29.4	23.5	22.9	23.9
More than 6 months	7.1	7.1	7.1	4.4	4.6	4.3
Still exclusive breast feeding	9.5	9.5	9.4	13.1	14.0	12.5
Child died within 6 months	1.3	1.6	1.1	1.3	1.9	0.9
Missing	0.1	0.0	0.2	0.7	0.8	0.6

χ2 p values refer to ALL between Baseline and Endline survey

Chapter 10

Child Immunization

Universal immunization of children against six vaccine preventable diseases namely, tuberculosis, diphtheria, pertussis, tetanus, polio and measles is an important initiative to reduce infant and child mortality. The Universal Immunisation Programme was launched by GoI in 1978 under which vaccinations are provided free of cost to all children. The immunization schedule developed specifies the age at which each vaccine is to be given, number of doses and route through which these vaccines are to be provided. The immunizations received by children are usually recorded on a vaccination card/Thayi card issued to the mother. Information on availability of immunization card/Thayi card with mother, vaccines received by the child, full immunisation, differentials in vaccines received, place of vaccination and reasons for not availing vaccines were collected from mothers of children aged less than two years.

10.1. Immunization/Thayi card

In the survey, all mothers were asked whether they have an immunization card/Thayi card for the last surviving child born during previous 2 years of survey. If mother reported that she had a card, interviewer asked her to show it and carefully copied each vaccination received by the child with place of immunization. If card was given but she could not produce to the interviewer, then mother was probed for vaccinations given with place of vaccination and recorded accordingly.

Table 10.1 presents the details on women having Thayi card/immunization card for the last surviving child for Baseline and Endline survey. There has been a significant increase in the proportion of women having Thayi/immunization card and seen by an interviewer, from 43 percent in Baseline to 54 percent in the Endline survey ($p<0.001$) and about one-third of women, in both surveys, had card but couldn't show it. It is important to note that proportion reported not to have received card has declined between the surveys and decline is observed more among non-SC/ST than SC/ST women.

Table 10.1: Percent distribution of women having immunisation/Thayi card for their last surviving child aged less than 2 years by sampling domain

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
No. of women having children aged < 2 yrs. *(p<0.001)*	**1755**	**950**	**805**	**1684**	**871**	**813**
Card present and seen	43.3	42.2	43.9	54.0	51.0	55.9
Card present but not seen	33.7	34.6	33.3	31.6	32.0	31.3
Received earlier but not having now	1.8	0.6	2.5	1.1	1.4	1.0
Not received at all	20.5	21.7	19.9	12.1	14.3	10.7
Missing	0.6	1.0	0.5	0.4	0.6	0.3

χ2 p values refer to ALL between Baseline and Endline survey

Table 10.2: Percent distribution of women having immunisation/Thayi card for their child aged 12-23 months by district

District	Baseline				Endline			
	N	Yes seen	Yes not seen	No card	N	Yes seen	Yes not seen	No card
All *(p<0.001)*	775	38.3	41.4	19.1	801	55.7	34.4	9.2
Bagalkot	108	31.0	55.0	13.0	91	76.0	22.0	2.0
Bijapur	116	18.9	44.1	35.1	111	52.4	26.7	18.1
Bidar	74	48.3	30.0	20.0	104	51.4	41.4	7.2
Raichur	109	53.8	40.7	6.6	88	49.5	38.1	11.3
Koppal	93	50.0	40.9	7.1	100	69.0	29.8	1.2
Bellary	82	48.3	34.5	13.8	115	67.9	29.3	0.7
Gulbarga	133	34.7	43.9	20.4	131	39.1	43.0	18.0
Yadgir	60	15.4	32.3	52.3	61	33.3	48.3	16.7

χ2 p values refer to ALL between Baseline and Endline survey

Table 10.2 provides information on women having card for their child aged 12-23 months by districts. It is encouraging to note that women reported card was not given has declined to half between the survey, from 19 percent in Baseline to 9 percent in Endline survey and is found significant ($p<0.001$). District differentials are observed in proportion of women not having this card; Yadgir district with highest proportion (52 percent) followed by Bijapur (35 percent)

during Baseline, reduced to around 18 percent in both districts in the Endline survey. Proportion of women not having immunisation card has reduced in all the districts except that of Raichur, where in it has increased from 7 percent to 11 percent.

10.2 Facilities visited for immunization

To understand number of facilities and type of facilities women visit to avail immunization for their children, mothers who were having a surviving child less than 2 years were asked on number of facilities and places visited to avail immunization for their child and responses are presented in table 10.3. Majority of the women had availed services from only one facility or from maximum two facilities as women who had availed services from more than 3 facilities was less than 10 percent in both the surveys. Usually birth doses are given at the place of birth and subsequent doses are given at the nearby facilities like Anganawadi centre, HSCs or PHCs. This makes the women to visit at least 2 facilities to get their children immunized.

Table 10.3: Percent distribution of women by number of facilities and type of facilities visited for immunisation services for their last surviving child aged less than 2 years by sampling domain

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of children <2 years	**1755**	**950**	**805**	**1684**	**871**	**813**
Number of facilities visited						
None (No immunisation)	1.8	2.4	1.4	1.8	2.7	1.2
1	53.6	56.2	52.2	41.1	41.6	40.8
2	39.6	37.3	40.9	47.5	46.6	48.0
3-4	5.0	4.1	5.3	9.6	9.2	10.0
Missing	0.1	0.0	0.2	0.0	0.0	0.0
Places visited						
HSC	24.6	26.8	23.3	19.5	17.9	20.6
PHC	25.9	22.6	27.8	23.5	23.5	23.5
CHC	6.7	4.3	8.1	6.2	7.4	5.6
TH	7.6	7.3	7.8	12.1	15.4	10.1
DH	4.4	7.3	2.6	9.3	8.4	9.9
AWC	63.6	62.6	64.1	77.6	77.4	77.8
Other public	1.4	0.8	1.8	0.6	0.2	0.9
Private/NGO	9.9	7.6	11.2	14.4	9.8	17.3
Home	3.2	3.8	2.8	1.6	2.3	1.2

Anganawadi centers continued to be the major source for vaccination, where, more than three-fourths of children got immunization in Endline survey- up from 64 percent in Baseline. PHC and SC were also the main source of immunization for substantial proportion of women and higher level facilities such as CHC, TH and DH were less frequently visited for immunization. Availing immunization from private facilities, though increasing between surveys, only 15 percent of women obtained services and non-SC/ST women were more likely than SC/ST to avail services from private facilities.

10.3 Full Immunization

As per the guidelines of Government of India, all primary vaccinations namely, BCG, 3 doses each of Polio and DPT and measles should be provided to each child by the time a child is 12 months old and such children are considered as fully immunized. As Government of Karnataka has introduced Pentavalent in September 2014, for children born before September 2014, a specific question was asked whether only one injection was given or two injections were given in order to differentiate DPT and Hepatitis vaccinations. On the other hand for those children born after September 2014, even if mother reports that only one injection was given, it was considered for both DPT and Hepatitis.

Table 10.4: Proportion of children aged 12-23 months received immunisation services by sampling domain

	Baseline			Endline		
Immunisation	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
No. of children 12-23 months	**775**	**416**	**359**	**801**	**415**	**386**
BCG	94.8	93.1	95.7	96.2	95.9	96.4
Polio 0	92.0	89.5	93.5	97.7	97.2	98.2
Polio 1	95.4	95.3	95.5	96.0	93.8	97.4
Polio 2	93.6	94.2	93.5	95.4	93.1	97.0
Polio 3	90.6	92.8	89.6	94.4	92.8	95.6
DPT1	92.0	92.0	92.0	95.4	92.8	97.2
DPT2	90.2	89.1	90.8	94.8	91.9	96.8
DPT3	86.6	86.6	86.7	93.6	91.6	95.0
Hepatitis1	90.2	89.5	90.8	95.2	92.8	96.8
Hepatitis2	87.3	84.8	88.8	94.1	91.9	95.8
Hepatitis3	82.6	83.0	82.7	93.7	91.9	95.0
Measles	81.1	81.5	80.8	87.0	85.6	88.1
Received full immunisation ***(p<0.001)***	71.8	74.6	70.2	84.3	81.9	86.1

χ2 p value refers to ALL between Baseline and Endline survey

Table 10.4 provides proportion of children age 12-23 months who had received specific vaccinations along with fully immunized. The coverage of BCG, all three doses of Polio and DPT vaccine has improved considerably since Baseline and each have been received by at least 94 percent of children in Endline survey- up from 86 percent from Baseline survey. The children covered under measles, though increased between the surveys, was only 87 percent. Encouragingly, the proportion dropout from BCG to measles, accounting primary immunization, has come down from 14 percent in Baseline to 9 percent in Endline survey and substantial decline in drop out from BCG to measles has occurred among non-SC/ST than SC/ST children. A significant increase in proportion of children fully immunized, from 72 percent in Baseline to 84 percent in Endline, was observed and increase was more among non-SC/ST than SC/ST ($p<0.001$). While SC/ST children were better in getting fully immunized in Baseline, it was true for non-SC/ST children during Endline survey.

Figure 10.5: Percentage of children age 12-23 months who have been fully immunized, according to selected characteristics

Particulars	Baseline		Endline	
	N	Full immunisation	N	Full immunisation
Total	**775**	**71.8**	**801**	**84.3**
Sex				
Male	405	69.6	400	85.7
Female	370	74.0	401	83.3
District				
Bagalkot	108	79.0	91	91.0
Bijapur	116	45.0	111	79.0
Bidar	74	83.3	104	91.0
Raichur	109	86.8	88	74.2
Koppal	93	75.3	100	89.3
Bellary	82	74.7	115	92.1
Gulbarga	133	74.5	131	79.7
Yadgir	60	56.9	61	73.3
Wealth Index				
Low	262	72.7	224	74.9
Middle	248	61.9	264	86.2
High	262	79.7	312	88.9

Notable changes are observed in children fully immunized by sex, districts and wealth index (table 10.5). Though male children are better in getting fully immunization than females both in Baseline and Endline, gap is narrowing down in Endline survey. Except Raichur, all districts in

the project area have shown an increase in the full immunization rate with highest increase (34 points) in Bijapur district. The decline in immunization rate in Raichur district needs attention. Children belonging to high economic households were more likely to be fully immunized than children belonging to poorer households in both the surveys.

10.4 Reasons for not availing immunization

Understanding reasons for not availing immunization is important for the policy point of view. Mothers whose children had not received any or some vaccinations were probed for the reasons. Table 10.6 shows change in the patterns of mother reporting for not vaccinated the child between the surveys. Ignorance related reasons such as unaware of need of vaccination, unaware of place and time of immunization which were more reported as reasons for not vaccinated have dropped drastically from 12 percent in Baseline to 4 percent in Endline survey. Further, reasons related to system such as non-availability of vaccine, absence of ANM and accessibility have come down in the Endline indicating an improvement in immunization sector since Baseline survey. However, fear of side effects was the predominant reason for not vaccinating their children in both the surveys.

Table 10.6: Percent distribution of children aged 12-23 months according to reasons for not availing immunisation by sampling domain

	Baseline			Endline		
Reasons	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
No. of children aged 12-23 months	**775**	**416**	**359**	**801**	**415**	**386**
Child too young	5.5	5.8	5.3	1.9	1.3	2.2
Unaware of need	7.6	5.8	8.6	1.7	2.8	1.0
Place unknown	0.9	0.4	1.0	0.1	0.3	0.0
Time of immunization unknown	3.1	4.0	2.7	1.7	2.5	1.2
Fear of side effects	6.0	4.3	6.9	3.8	5.0	3.0
No faith	0.1	0.4	0.0	0.5	0.3	0.6
Place too far to go	1.7	1.1	2.2	0.4	0.3	0.4
Time inconvenient	2.1	2.2	2.0	2.5	0.3	4.0
ANM absent	0.8	0.4	1.2	0.1	0.3	0.0
Vaccine not available	2.1	1.8	2.2	0.0	0.0	0.0
Mother too busy	2.0	1.4	2.2	0.6	0.0	1.0
Child ill not brought	1.3	1.4	1.2	0.5	1.3	0.0
Child ill brought but not given	0.3	0.4	0.2	0.2	0.0	0.4
Family/husband not allowed	0.3	0.0	0.4	0.5	1.3	0.0
Migrated	0.4	0.4	0.4	1.0	2.2	0.2
Other	2.0	2.5	1.8	1.7	2.2	1.6

Chapter 11

Family Planning

This chapter presents information on use of family planning methods, duration of use, source of FP method and reasons for not using the method collected from all eligible women in the survey. First, all eligible women were asked whether they had heard of the family planning method by spelling out each method and further asked whether had ever used that method if they had heard about it. Further, currently married women who reported that they had used a spacing method, were asked about duration of use of that method and if discontinued, reasons for discontinuation.

11.1 Ever and current use of family planning method

While ever use refers to cumulative experience of use of the methods by men and women, current use is method currently using by women or men. Table 11.1 presents proportion of women ever used and currently using a method.

Table 11.1: Percent distribution of women interviewed by ever and current use of family planning methods by method and sampling domain

FP method@	Baseline						Endline					
	Ever use			Current use*			Ever use			Current use*		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women	5240	2628	2612	4956	2473	2483	5154	2565	2589	4881	2404	2477
Female Sterilization ***(p<0.001)***	40.4	37.5	41.8	41.2	38.1	42.7	44.8	45.9	44.1	45.4	46.9	44.5
IUD (***p=.782)***	0.9	0.2	1.3	0.2	0.1	0.2	0.9	0.3	1.3	0.2	0.2	0.3
Oral pills ***(p<0.001)***	1.1	0.5	1.4	0.1	0.1	0.1	1.2	0.8	1.4	0.1	0.2	0.1
Male condoms ***(p<0.001)***	0.6	0.5	0.7	0.2	0.1	0.2	0.6	0.2	0.8	0.3	0.1	0.4
Injectables ***(p<0.001)***	0.2	0.1	0.2	0.1	0.0	0.1	0.3	0.2	0.3	0.2	0.2	0.2
Emergency Contraception ***(p<0.001)***	0.1	0.0	0.1	NA	NA	NA	0.1	0.0	0.2	NA	NA	NA
Rhythm Method ***(p<0.001)***	1.7	2.0	1.6	0.6	0.8	0.5	0.7	0.9	0.6	0.1	0.0	0.2
Withdrawal***(p<0.001)***	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

*Among currently married; @ No cases for Male sterilization and Female condoms; χ2 p values refer to ALL between Baseline and Endline survey for Ever Users.

Since Baseline, there has been an increase of 3 percentage points in the ever use or current use of FP methods by women. Female sterilization continued to be the most commonly used method and use of spacing methods was very negligible even in Endline survey. Use of female sterilization increased by about 3 percentage points whereas use of IUD, oral pills and condoms remained same (around 2.5 percent among ever users, less than 1 percent among current users) between the surveys and the differences are statistically significant ($p<0.001$). None of the husbands of interviewed women had undergone sterilization operation and use of traditional methods (Rhythm and withdrawal) has decreased between the two surveys ($p<0.001$).

Table 11.2: Percent distribution of currently married women aged 15-34 according to the current use of FP method, by selected background characteristics

	Baseline				Endline			
	All	None	Sterilization	Other	All	None	Sterilization	Other
All	4956	58	41	1	4881	53	45	1
Wealth Index								
Low	1453	52	48	0	1460	49	51	0
Medium	1642	59	41	0	1619	55	44	1
High	1847	62	37	1	1778	54	43	1
Caste/tribe								
SC/ST	2473	61	38	0	2404	52	47	1
Non SC/ST	2483	56	43	1	2477	53	44	1
District								
Bagalkot	635	59	41	1	557	47	52	0
Bijapur	727	57	42	1	756	55	43	1
Bidar	586	53	46	1	557	58	40	1
Raichur	688	57	43	0	640	54	44	1
Koppal	501	62	38	0	576	52	47	0
Bellary	656	53	47	1	678	46	53	1
Gulbarga	765	63	37	0	737	55	43	1
Yadgir	398	63	37	0	380	59	40	1

Significant differentials in the use of family planning method are observed by wealth index, caste and district (Table 11.2). Use of contraceptive methods has decreased with increase in the wealth index in both the surveys. The proportion using sterilisation was high (51 percent) among women belonging to poorer households and it was low (44 percent) for women belonging to wealthy households. Use of the method was highest among non-SC/ST than SC/ST in the Baseline, a reverse trend was observed in Endline survey. Though rise in the use of

contraception in the project districts has been observed between the surveys, the pace of increase was minimum in Bijapur district and it was maximum in Bagalkot district followed by Koppal. It is also found that increase in the use of contraception between surveys was mainly due to increase in the use of sterilization and use of spacing methods remained almost same since Baseline survey.

11.2 Duration of use of methods

All women who were currently using or ever used any spacing method were asked the duration of use of the method. As observed in table 11.3, the average duration of use of IUD was about 40 months followed by oral pills (12 months) and male condom and injectables (each 9 months) and almost same pattern continued in Endline survey also.

11.3 Source of family planning method

Family planning methods both permanent and spacing are provided through a network of public and private hospitals. Spacing methods such as oral pills and condoms are available in pharmacies also. The source from where the women obtained the method is presented in table 11.4. Government health sector was the major source for permanent methods for 35 percent of FP acceptors in Baseline and it has increased to 39 percent in Endline. Within the public sector, Taluka hospitals and PHCs were the most common source for permanent methods in both the surveys. On the other hand, private health facilities were the major source for spacing methods. The trend that SC/ST women were more likely to obtain permanent methods of FP from government facilities and non-SC/ST women were more likely to obtain spacing methods from private/NGO facilities was observed even in Endline survey.

11.4 Age at first use of FP method

Age of the woman at the use of the method has a bearing on fertility. All women who had used a FP method were asked on their age at which they started using a method for the first time. Responses presented in table 11.5 showed a small improvement in age at first use of FP method over Baseline survey. The proportion of women used FP method for the first time at the age 15-19 years has increased from 6 percent in Baseline to 9 percent in Endline survey ($p<0.001$). However, for majority of the women age at first use of FP method was in the age range of 20-24 and for one in ten women first use of a FP method was beyond 25 years in both the surveys.

Table 11.3: Percent distribution of women by duration of use of family planning methods, by sampling domain

	Combined			Current users			Earlier users		
	Total	SC/ST	Non SC/ST	Total	SC/ST	Non SC/ST	Total	SC/ST	Non SC/ST
Baseline									
Number of women	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**	**5240**	**2628**	**2612**
IUD									
Less than 1 year	0.2	0.1	0.3	0.1	0.1	0.2	0.1	0.0	0.1
1 year or more	0.6	0.1	1.0	0.3	0.0	0.4	0.4	0.1	0.5
Median	*40.0*	*7.5*	*54.0*	*22.5*	*6.0*	*43.5*	*50.8*	*9.0*	*61.0*
Oral pills									
Less than 1 year	0.5	0.3	0.6	0.2	0.2	0.2	0.3	0.1	0.4
1 year or more	0.5	0.1	0.7	0.1	0.1	0.1	0.4	0.1	0.6
Median	11.5	10.5	12.0	11.1	40.0	9.6	11.7	9.0	23.2
Male condom									
Less than 1 year	0.4	0.3	0.5	0.1	0.1	0.2	0.3	0.2	0.3
1 year or more	0.2	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.2
Median	*8.6*	*9.3*	*8.1*	*9.8*	*10.0*	*9.6*	*8.0*	*9.0*	*7.3*
Injectables									
Less than 1 year	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1
1 year or more	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Median	*8.6*	*12.0*	*8.0*	*7.0*	*6.0*	*7.2*	*54.0*	*96.0*	*12.0*
Endline									
Number of women	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**	**5154**	**2565**	**2589**
IUD									
Less than 1 year	0.4	0.1	0.5	0.1	0.1	0.1	0.3	0.1	0.4
1 year or more	0.6	0.2	0.8	0.2	0.1	0.2	0.4	0.1	0.6
Median	*43.1*	*54.0*	*40.0*	*54.0*	*68.0*	*45.6*	*38.5*	*40.0*	*38.3*
Oral pills									
Less than 1 year	0.8	0.4	0.9	0.1	0.1	0.1	0.7	0.4	0.8
1 year or more	0.4	0.4	0.4	0.0	0.1	0.0	0.4	0.3	0.4
Median	*8.9*	*9.8*	*8.5*	*9.0*	*54.0*	*6.0*	*8.9*	*9.0*	*8.9*
Male condom									
Less than 1 year	0.5	0.2	0.6	0.2	0.1	0.3	0.2	0.1	0.3
1 year or more	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.2
Median	*8.8*	*8.4*	*8.8*	*9.0*	*9.0*	*9.0*	*8.6*	*8.0*	*8.7*
Injectables									
Less than 1 year	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.1
1 year or more	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Median	*7.0*	*6.0*	*7.7*	*6.8*	*6.0*	*7.5*	*7.5*	*6.0*	*8.0*

Table 11.4: Percent distribution of women interviewed by source of FP method, by sampling domain

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**
Permanent methods						
PHC	10.3	9.4	10.7	11.0	13.4	9.6
CHC	6.1	5.9	6.2	5.9	6.1	5.8
TH	13.3	12.6	13.6	15.1	16.2	14.4
DH	4.4	4.4	4.4	5.8	5.8	5.9
SC/AWW/ASHA/Camp	0.4	0.2	0.5	0.5	0.7	0.4
Other public	0.5	0.7	0.3	0.5	0.6	0.4
Pvt./NGO	5.5	4.1	6.2	5.6	2.9	7.3
Other	0.2	0.3	0.2	0.1	0.1	0.1
Don't Know	0.0	0.1	0.0	0.2	0.2	0.1
Spacing methods						
Total	0.6	0.4	0.7	0.8	0.6	1.0
HSC	0.1	0.2	0.1	0.0	0.0	0.1
PHC	0.1	0.1	0.1	0.1	0.1	0.1
CHC	0.0	0.1	0.0	0.0	0.0	0.0
TH	0.1	0.0	0.2	0.0	0.0	0.0
Pvt./NGO	0.2	0.1	0.3	0.4	0.4	0.3
Pharmacy	0.1	0.0	0.1	0.2	0.1	0.2
Don't Know	0.0	0.1	0.0	0.1	0.0	0.1

Table 11.5: Percent distribution of women interviewed by age at first use of FP by sampling domain

Age of women at first use of FP	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Number of women *(p<0.001)*	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**
15-19	6.4	5.7	6.9	9.3	11.1	8.2
20-24	25.1	22.6	26.4	26.0	24.7	26.8
25-29	9.7	9.4	9.8	9.9	10.1	9.9
30-34	0.9	0.8	0.9	1.1	0.9	1.3

χ2 p value refers to ALL between Baseline and Endline survey

11.5 Reasons for discontinuation of spacing method

Women who had discontinued use of a spacing method were asked reasons for discontinuation and their responses are presented in Table 11.6 . High proportion (39 percent) of women reported 'wanted a child' was the main reason in both the surveys. The fact that proportion of women expressed 'health problem' due to the method as the reason for discontinuation has doubled (8 percent versus 17 percent) between the surveys needs programme managers' attention. While wanted a child as the reason for discontinuation was expressed more by SC/ST women, experienced health problem was cited more by non-SC/ST women than SC/ST women.

Table 11.6: Percent distribution of women ever used spacing methods according to reasons for discontinuation by sampling domain

Reasons	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Wanted a child	39.4	39.0	39.3	39.0	55.3	33.6
Exp. Health problem	8.0	3.4	9.4	17.9	6.4	21.5
Inconvenient to use/spouse does not like/does not co-operate	0.0	0.0	0.0	4.1	4.3	4.0
Difficult to get	0.4	0.0	0.5	1.0	0.0	1.3
Husband away/died	1.2	0.0	1.6	2.1	0.0	2.7
Spouse opposed	2.0	3.4	1.6	0.0	0.0	0.0
Prefer permanent method	4.8	5.1	4.2	4.1	2.1	4.7
Difficult to use every time	0.8	1.7	0.5	0.0	0.0	0.0
Difficult to determine unsafe period	0.4	0.0	0.5	1.0	0.0	1.3

11.6 Reason for not using any FP method

Women who were currently not using any modern method of family planning were asked the reasons for their intention. This information is important to understand the obstacles to contraceptive use so that suitable measures could be taken. Table 11.7 shows that about one-third of the women reported 'want a child' as the reason for currently not using any method in both the surveys. The programmatic related reasons such as lack of knowledge of contraceptive method, opposition from husband/family members or their religion and fear of side effects were also the

reasons reported but proportion reported these as reasons for not using contraceptives has declined since Baseline survey, from 10 percent in Baseline to 3 percent in Endline survey.

Table 11.7: Percent distribution of women interviewed by reason for not using any FP, by sampling domain

	Baseline			Endline		
Reason	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women	**5240**	**2628**	**2612**	**5154**	**2565**	**2589**
Knows no method/source	2.9	3.7	2.5	0.6	0.6	0.6
Opposition from self/husband/family member/religion	5.1	6.2	4.6	0.6	1.0	0.4
Health concerns/fear of side effects	1.6	1.8	1.6	1.3	1.4	1.2
Method related (difficult to get/inconvenient to use/Do not like/Afraid of)	0.3	0.4	0.2	0.4	0.4	0.5
No/Infrequent sex	2.0	1.7	2.1	1.3	1.5	1.2
Hysterectomy	0.2	0.2	0.2	0.3	0.3	0.3
Sub fecund / In fecund	2.9	2.9	2.9	1.5	1.0	1.7
Want a child	32.4	33.1	32.1	36.7	36.0	37.1
Postpartum amenorrheic	2.2	2.3	2.1	4.6	4.7	4.6
Currently pregnant	4.0	4.7	3.6	0.0	0.0	0.0
Up to God	0.5	0.5	0.5	0.4	0.4	0.5
Other	2.7	3.1	2.4	5.3	5.5	5.1
Don't know	1.1	0.9	1.2	0.3	0.2	0.4

Chapter 12

Expenditure incurred for maternal and child health services

In this chapter, an attempt has been made to understand the expenditure incurred by the women who delivered during previous 3 years on antenatal, natal, postnatal and child health care services. The expenditure incurred towards consultation, diagnostics, medicine, bed charges/room rent have been included in the total expenditure incurred for the ANC and PNC services. In addition to above, expenditure towards food and transportation from home to facility and back were also included while estimating the cost of delivery services. Tips given to the health staff while getting these services were also taken into consideration. Further, if a woman has visited more than one facility for services, the information on expenditure incurred in each facility for each service was obtained.

12.1 Expenditure towards pregnancy confirmation test and to obtain a Thayi card

All women who had given birth during last three years and reported that they have undergone pregnancy confirmation test for their last pregnancy were asked how much money was spent towards the test. It is seen from the table 12.1 that of the total 2499 women reported to have undergone pregnancy confirmation test, a little less than one-third (31 percent) had informed that pregnancy confirmation test was free of cost to them during Baseline. Though proportion of women getting urine test without paying any amount has increased to 37 percent during Endline, average cost towards urine test has increased from Rs.84 to Rs.88. More of SC/ST women than non-SC/ST reported free of cost pregnancy confirmation test in both the surveys and average expenditure was also more for non-SC/ST women.

After confirmation of pregnancy, a health worker is expected to provide a Thayi card free of cost, in which type of services provided to the women along with date will be recorded. This card also helps the woman to avail services at other than her usual place of residence if she carries the card with her. To assess the extent of women received the card at free of cost, a question was asked and responses are summarized in table 12.1. During Baseline around half of

the women received Thayi card by not paying any amount to the health workers and it has increased to 60 percent in Endline. However, average cost paid by the women also has increased from Rs.17 to Rs.23 between two surveys.

Table 12.1: Percent distribution of eligible women who had their last pregnancy termination during previous 3 years, according to the details of amount paid by them while doing pregnancy confirmation test and for receiving Thayi card

	Baseline			Endline		
Amount paid	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of women	2499	1321	1178	2337	1205	1132
Amount paid for the preg. Confirmation						
Mean (Rs)	**84**	**79**	**90**	**88**	**78**	**99**
Nothing paid	30.8	33.4	29.3	36.7	39.7	34.8
Up to 50	15.3	14.7	15.7	14.2	14.8	13.8
51-100	18.1	12.9	20.9	10.8	10.6	11.0
More than 100	15.3	13.6	16.3	15.7	13.3	17.3
Missing	0.1	0.0	0.1	0.1	0.1	0.1
Don't know	9.9	11.1	9.3	16.9	14.6	18.3
Amount paid for Thayi card						
Mean (Rs)	**17**	**16**	**17**	**23**	**25**	**20**
Nothing paid	49.1	51.0	48.0	60.4	60.9	60.1
Up to 50	3.3	3.3	3.3	5.6	5.4	5.8
51-100	2.9	3.3	2.7	6.2	6.7	5.9
More than 100	2.4	1.6	2.9	2.9	2.5	3.1
Missing	0.0	0.0	0.0	0.3	0.3	0.1
Don't know	4.6	5.4	4.2	3.4	3.1	3.5

12.2 Expenditures towards ANC, delivery and PNC services

Baseline survey had estimated an average expenditure of Rs.7185 for the women who had delivered in the three years preceding the survey for getting MCH services and it has increased to Rs.9831 during Endline (Table 12.2). This estimate is based on the reported money spent by the woman or her family for all antenatal care, delivery and postnatal care, including doctor/consultation charges, diagnostics, medicine, bed charges/room rent, food, transportation and tips to staff. As expected, a substantial proportion of this total expenditure was associated

with delivery costs. The average cost for ANC services was Rs.1809, for delivery services Rs.4547 and for PNC services Rs.917 during Baseline. The cost towards getting ANC services has increased to Rs.3421 and that for delivery to Rs.6656 during Endline; however expenditure towards PNC has reduced to Rs.550. Amount paid for getting MCH services was higher among Non-SC/ST women compared to SC/ST women and it was more among women with high economic status compared to low and middle groups. Reported expenditure was highest at Bijapur (Rs.13045) and was lowest at Koppal (Rs.7457).

Table 12.2: Average expenditure in rupees, incurred by the beneficiaries who delivered in the past 3 years for the MNCH services received, by selected characteristics

	Baseline				Endline			
	ANC	Delivery*	PNC	Total	ANC	Delivery*	PNC	Total
District								
Bagalkot	1554	3215	563	5823	3646	7655	297	10654
Bellary	1715	4730	812	5952	2216	6599	598	8145
Bidar	1813	4463	854	6945	2920	5643	526	8911
Bijapur	2701	4929	1355	10203	4805	8713	402	13045
Gulbarga	1460	5559	694	11375	4001	5880	547	10158
Koppal	925	5511	579	5531	2343	6051	491	7457
Raichur	1749	4018	1238	5758	3944	7441	1029	10166
Yadgir	2380	3618	1234	8314	2876	4650	666	10597
Caste/Tribe								
SC/ST	1561	3821	899	6436	2784	5377	465	7415
Non SC/ST	2083	5304	937	8006	4089	8002	644	12447
Wealth Index								
Low	1303	3482	825	5590	2738	4313	354	6546
Middle	1603	4210	1113	6792	3352	6450	695	9886
High	2413	5625	821	8833	4040	8558	569	12440
Total	**1809**	**4547**	**917**	**7185**	**3421**	**6656**	**550**	**9831**

*Excluding Home deliveries

Table 12.3: Percentage of women delivered in the past 3 years and received free MNCH services, by selected characteristics

	Baseline			Endline		
Particulars	**ANC**	**Delivery***	**PNC**	**ANC**	**Delivery***	**PNC**
District						
Bagalkot	5.7	26.8	10.1	1.2	17.8	44.0
Bellary	2.6	29.6	34.3	11.2	24.7	53.2
Bidar	7.6	12.1	23.8	11.7	11.4	46.0
Bijapur	4.8	27.6	9.0	5.4	19.1	43.0
Gulbarga	17.3	31.3	9.8	10.1	24.5	49.9
Koppal	18.2	31.6	24.2	6.4	26.7	62.7
Raichur	6.6	35.4	14.8	3.2	34.1	25.4
Yadgir	6.6	29.1	5.7	10.7	26.0	24.0
Caste/Tribe						
SC/ST	10.2	31.7	18.3	11.6	28.8	45.6
Non SC/ST	8.4	26.7	16.2	5.1	19.6	42.8
Wealth Index						
Low	12.9	36.6	18.1	12.3	34.9	42.7
Middle	9.9	30.3	16.8	6.8	21.3	44.7
High	5.4	20.4	16.0	5.2	17.1	43.6
Total	9.1	28.5	16.9	7.6	23.2	43.8

*Including home deliveries

Overall, only nine percent of the women who delivered in the last 3 years reported that they had received free ANC services during Baseline and it has reduced to eight percent during Endline. Only Seventeen percent of the women reported that had not paid any money for getting PNC services during Baseline and it has increased to as high as 44 percent. Delivery services were completely cashless for about 29 percent of the women during Baseline and it has decreased to 23 percent during Endline (Table 12.3). Proportion reported that they have received these services completely free was comparatively more among SC/ST women and women belonged to low wealth index households.

12.3 Expenditure of ANC services by facility

Table 12.4 presents amount incurred by the women towards ANC services such as blood test, urine test, ultrasound, medicines and other laboratory tests. If tests or medications are availed from different facilities, the expenditure incurred in each facility is obtained. Here total

expenditure towards ANC refers to expenditure incurred at each of the health facilities visited by the women. ANC services are almost (85 percent during Baseline and 91 percent during Endline) free for women who had availed services from sub centers. Only 47 percent of the women who had visited PHC told that they had paid no amount for the services during Baseline and it has increased to 75 percent during Endline. Similarly, proportion of women received free services has increased at CHCs, THs and DHs between two rounds of surveys. The average expenditure of ANC services has reduced between two surveys at HSCs, PHCs and THs whereas the expenditure has increased and almost doubled at private health facilities. It can be inferred from the table that the ANC services, which a pregnant woman is expected to get free of cost in government health facilities, are actually not completely cashless. Usually the average expenditure of ANC is higher for non-SC/ST women than that for SC/ST women.

Table 12.4: Proportion of women received ANC services free of cost during their last pregnancy during previous 3 years, by place of visit and sampling domain

	Baseline			Endline		
Place of visit	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Sub center						
Prop. Received Free of cost	84.8	83.6	85.8	91.2	89.8	92.2
Mean	26	21	33	21	7	34
PHC						
Prop. Received Free of cost	46.9	41.3	50.1	74.7	73.4	75.2
Mean	122	133	109	115	78	160
CHC						
Prop. Received Free of cost	43.4	44.9	42.6	60.2	57.4	62.0
Mean	169	140	203	646	191	1275
Taluka hospital						
Prop. Received Free of cost	20.7	20.2	21.3	49.4	46.5	52.5
Mean	375	373	378	334	347	318
District hospital						
Prop. Received Free of cost	29.7	28.6	29.7	42.0	43.5	41.1
Mean	436	410	476	563	412	714
Other public facility						
Prop. Received Free of cost	25.0	25.0	25.0	11.8	0.0	16.7
Mean	639	1000	359	1704	1871	1508
Private facility						
Prop. Received Free of cost	0.9	0.8	1.0	1.4	1.1	1.6
Mean	1941	1737	2139	3918	3381	4420

12.4 Expenditure towards delivery

All the women who had delivered in the health facility were asked the amount spent for their last delivery. It is observed from table 12.5 that less than 10 percent of the women had received free delivery services in government health facilities - ranging from 11 percent at HSCs to 10 percent at PHCs during Baseline and the proportion has increased to 16 percent at PHCs and 11 percent at DHs during Endline. Not much variation is observed between the castes categories in getting complete free delivery services.

Table 12.5 :Proportion of women received delivery services free of cost during their last delivery during previous 3 years, by place of delivery* and sampling domain

Place of delivery	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
HSC						
Prop. Received Free of cost	11.1	0.0	13.8	0.0	0.0	0.0
Mean	553	671	470	1086	1379	500
PHC						
Prop. Received Free of cost	9.8	5.6	12.4	15.5	16.7	14.6
Mean	923	972	863	1201	1100	1331
CHC						
Prop. Received Free of cost	8.1	5.9	9.8	9.2	9.9	8.8
Mean	1197	861	1603	1539	1698	1314
TH						
Prop. Received Free of cost	4.3	4.9	4.0	12.7	13.0	11.9
Mean	1624	1493	1777	2344	2049	2770
DH						
Prop. Received Free of cost	5.0	9.1	1.4	10.5	10.7	10.4
Mean	3485	2977	4277	3712	3459	3962
Private facility						
Prop. Received Free of cost	0.2	0.0	0.3	0.0	0.0	0.0
Mean	12187	11770	12479	17549	17126	17820
Mean by type of delivery						
Normal	2450	2148	2782	3491	2744	4337
Ceasarean	18425	16855	19635	24497	24469	24516
Assisted	6041	5671	6300	6488	5398	7360

Average expenditure of delivery services has increased at all the facilities between two rounds of surveys. An average expenditure of delivery increases two times when compared between PHCs with THs and it increases three times when compared between PHCs at DHs. Total expenditure of getting delivery services increases more than 4 times when compared between DHs and private facilities. Total expenditure of getting delivery services was reported to be Rs.3195 at DHs for a normal delivery and was estimated to be Rs.10,035 at Private facilities. Similarly getting a Ceasarean delivery at DHs costs Rs.5895 whereas it was Rs.30,037 at private facilities. The average expenditure for normal and caesarean deliveries were more among non-SC/ST women than among SC/ST women.

12.5 Expenditure incurred for PNC

Table 12.6 presents amount incurred by the women towards post natal care (PNC) including identification and management of postnatal complications, services for the newborn. Compared to ANC services, the proportion of women received free PNC services is higher in each facility. While majority (88 percent) of women had not spent any amount on PNC services at HSCs during Baseline it has decreased to 64 percent during Endline. Proportion of women who reported that their PNC services were completely free has increased to around 80 percent at PHCs, CHCs and THs and it is 65 percent at DHs. More of SC/ST women than Non SC/ST women reported free PNC services especially at DHs. The average expenditure for PNC services has decreased in all the facilities except HSCs and was minimum at Rs.50 in HSCs and was the highest at District hospitals (Rs.410) among government hospitals and it was still higher at private hospitals (Rs.1419).

12.6 Expenditure incurred for treatment of child's diarrhoea/cough with fever

All mothers who had last surviving child aged less than 2 years were asked whether their child had suffered from diarrhoea and cough with fever during the last 3 months. If the child suffered any of these diseases, amount spent for the treatment was asked. It is seen from the table 12.7 that proportion of women reported free of services has reduced to 4 percent in Endline which was 7 percent during Baseline. However, like earlier MCH services, expenditure of getting treatment for childhood diseases also increased from Rs.745 to Rs.1125 between two rounds of

surveys. On an average, women had spent Rs.445 at PHC/HSC, Rs.241 at Other public facilities and Rs.1195 at private facilities.

Table 12.6: Proportion of women received PNC services free of cost during their last delivery during previous 3 years, by place of visit and sampling domain

	Baseline			Endline		
Place of PNC visit	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Sub Centre						
Prop. Received Free of cost	88.4	90.5	85.2	63.6	55.6	69.2
Mean	0.4	0.6	0	50	13	80
PHC						
Prop. Received Free of cost	59.6	58.7	60.5	80.3	83.1	78.1
Mean	89	85	94	100	54	159
CHC						
Prop. Received Free of cost	54.5	54.3	54.7	78.9	76.8	81.8
Mean	171	175	166	112	149	59
TH						
Prop. Received Free of cost	41.4	45.8	38.8	78.4	79.2	78.1
Mean	264	290	238	82	84	79
DH						
Prop. Received Free of cost	38.5	28.3	49.1	65.3	76.9	57.8
Mean	764	1112	304	410	373	455
Private/NGO hospital						
Prop. Received Free of cost	9.6	12.4	8.4	36.4	31.4	38.4
Mean	1701	1720	1684	1419	1369	1458

Table 12.7: Percent distribution of women by the amount incurred for their child's diarrhoea/cough with fever treatment, for the last surviving child aged <23 months

	Baseline			Endline		
	All	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Number of children experienced	689	352	337	634	310	324
Prop received Free of cost	7.1	9.5	6.0	3.8	3.0	4.2
Mean expenditure						
Combined	745	695	798	1125	981	1264
PHC/SC	123	149	71	445	573	167
Other public	295	285	308	241	386	174
Private	888	840	937	1195	1028	1360
Pharmacy/Drug house	114	75	122	1580	200	1925

12.7 Expenditure incurred for Immunization services

Almost all the women who had availed immunization for their children in government health facilities reported that they have not spent any amount towards immunization services and even if they spend, it is very much negligible amount. On the other hand getting immunisation services at private facilities expenditures around Rs.181 for the rural women and it was more among non-SC/ST women (Rs.243) than that among SC/ST women (Rs.93). Hence getting immunisation services for the children did not lay any economic burden even among poorest of the poor in rural areas of the project area.

Table 12.8: Percent distribution of women by the amount incurred for their child's immunisation services, for the last surviving child aged <23 months

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
SC						
Prop. Received Free of cost	97.1	98.2	96.5	100.0	100.0	100.0
Mean	3	2	3	0	0	0
PHC						
Prop. Received Free of cost	88.8	83.7	90.7	99.8	100.0	99.6
Mean	17	23	11	0	0	0
CHC						
Prop. Received Free of cost	90.2	87.5	90.9	99.1	100.0	98.3
Mean	53	100	14	2	0	4
TH						
Prop. Received Free of cost	81.7	82.1	81.6	98.7	100.0	97.5
Mean	31	30	33	0	0	0
DH						
Prop. Received Free of cost	82.0	82.5	81.0	98.2	98.4	98.1
Mean	26	20	40	0	0	0
AWC						
Prop. Received Free of cost	97.8	96.3	98.6	99.2	99.5	99.0
Mean	3	4	2	2	0	5
Other public						
Prop. Received Free of cost	100.0	100.0	100.0	100.0	100.0	100.0
Mean	25	5	20	0	0	0
Private/NGO						
Prop. Received Free of cost	53.1	73.0	45.2	64.1	66.7	63.2
Mean	196	50	329	181	93	243

12.8 Expenditure incurred for family planning services

Proportion of women who reported that they have undergone female sterilisation operation at free of cost has increased from 70 percent at Baseline to 83 percent during Endline and also average expenditure of getting female sterilisation has reduced to Rs.276 from Rs.420 in the last three years. The average expenditure of female sterilisation was comparatively more among Non-SC/ST women. On the other hand, proportion reported that they have received spacing methods like IUD, Oral pills and condoms have decreased and thus average expenditure of getting these methods has increased between the two rounds of survey. Hence as motioned earlier, special attention is needed to popularize spacing methods, by providing free services to the rural women.

Table 12.9: Percent distribution of current users of FP by the amount incurred for the method, by method

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Female sterilization						
Prop. Received Free of cost	69.9	71.7	68.9	83.1	89.4	79.2
Mean	420	312	520	276	173	384
IUD						
Prop. Received Free of cost	30.0	33.3	28.6	25.0	33.3	22.2
Mean	250	250	250	680	875	550
Oral pills						
Prop. Received Free of cost	20.0	100.0	0.0	14.3	0.0	25.0
Mean	95	0	143	206	383	28
Male condom						
Prop. Received Free of cost	72.7	33.3	100.0	28.6	0.0	30.8
Mean	32	33.3	31.4	69	90	66
Injectables						
Prop. Received Free of cost	0.0	0.0	0.0	0.0	0.0	0.0
Mean	969	0	969	306	313	300

Chapter 13

Clients' satisfaction for MCH services

One of the important objectives of NHM is to provide the quality health care services and to ensure that the patients are satisfied by the services rendered at the health facilities. This chapter deals with information on satisfaction for services received at the visited facility and also their suggestions to improve the services.

13.1 Satisfaction with ANC services

Table 13.1: Percent distribution of women by their satisfaction level for ante natal care services received during last 3 years by place of visit and sampling domain

	Baseline			Endline		
	All	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Other Public Hospital						
Fully satisfied	79.6	82.6	77.7	88.3	88.4	88.1
Partially satisfied	13.8	13.2	14.2	10.0	10.3	9.7
Not satisfied	5.6	2.8	7.4	1.6	1.2	1.9
Don't Know/Can't say	0.8	1.4	0.7	0.1	0.0	0.2
Number of women visited	**717**	**393**	**324**	**738**	**411**	**327**
PHC/HSCs						
Fully satisfied	80.0	76.6	82.4	90.2	89.4	90.7
Partially satisfied	16.9	20.3	14.6	8.7	9.2	8.3
Not satisfied	1.7	1.7	1.7	1.2	1.3	1.0
Don't Know/Can't say	1.5	1.5	1.4	0.0	0.0	0.0
Number of women visited	**1743**	**956**	**787**	**1935**	**1038**	**897**
Private/NGO hospital						
Fully satisfied	82.1	80.9	82.7	88.8	88.4	89.3
Partially satisfied	13.9	14.9	13.5	9.8	10.9	9.3
Not satisfied	2.5	2.2	2.7	1.2	0.9	1.4
Don't Know/Can't say	1.4	1.9	1.2	0.1	0.0	0.2
Number of women visited	**1971**	**977**	**994**	**1844**	**900**	**944**
Other						
Fully satisfied	78.0	65.5	84.9	87.5	100.0	78.6
Partially satisfied	17.1	24.1	11.3	12.5	0.0	21.4
Not satisfied	0.0	0.0	0.0	0.0	0.0	0.0
Don't Know/Can't say	4.9	6.9	3.8	0.0	0.0	0.0
Number of women visited	**83**	**37**	**46**	**18**	**8**	**10**

Women who had availed ANC services were asked whether they were satisfied with the services in the facility they had visited and responses are presented in table 13.1. Majority of the women both in Baseline and Endline survey expressed full satisfaction with ANC services received in the facility visited and an improvement in the satisfaction level was observed in both government and private facilities from the Baseline survey. The PHCs/HSCs which play an important role in rural health care services evidenced more than 90 percent of women with full satisfaction of services in Endline survey. While, more of non-SC/ST women were fully satisfied with ANC services received at PHC/HSCs, it was more of SC/ST women who expressed full satisfaction for services received at other public hospitals.

13.2 Suggestions to improve ANC, PNC and immunization services

Women who received ANC, PNC and immunization services from the facilities were asked on suggestions to improve the services. Table 13.2 shows that proportion of those who suggested to reduce the expenditure of ANC, PNC and immunization has come down since Baseline. But proportion reported system related improvements such as ensuring availability of doctor/staff, better infrastructure facility, change in the behavior of staff and better cleanliness increased, especially for ANC and PNC services, since Baseline survey. However, reduction in waiting time to avail immunization was the major suggestion provided by the women in both Baseline and Endline survey. Further, noticeable differentials found was that SC/ST women were more likely than non-SC/ST women to suggest improvements related to system while getting ANC and PNC services.

Free transportation service for pregnant women and other emergency cases through '108/ ambulance' was initiated under NHM. In the survey if pregnant women reported that they have utilized 108/ambulance to reach the facility for delivery, they were further asked about their experience with 108/ambulance. Majority (more than 97 percent) of women in both the surveys told that 108/ambulance has reached their home on time and majority of them reported that they were taken to a hospital/facility as desired by them. Though proportion reached private facility through 108/ambulance has increased between the surveys, still it was the public facility where majority of women reached through 108/ambulance. The services of 108/ambulance, which is said to be free of cost, was not free for 35 percent of women in Endline- up from 23 percent since Baseline survey and non-SC/ST women were more likely to pay for ambulance compared to SC/ST women.

Table 13.2: Percent distribution of women delivered during previous 3 years by suggestions to improve ANC, PNC and immunisation services and their experience with 108 services, according to sampling domain

	Baseline			Endline		
Services	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
ANC						
Availability of doctors/Nurse	4.4	4.7	4.3	7.2	8.7	6.3
Accessibility	2.2	2.3	2.1	3.4	3.4	3.3
Cost	9.6	9.5	9.6	7.6	8.8	7.0
Behavior of staff	5.3	7.4	4.1	6.2	5.7	6.5
Infrastructure of facility	2.8	2.2	3.2	4.9	5.8	4.3
Privacy	1.4	1.8	1.1	2.0	1.8	2.1
Cleanliness	4.1	4.1	4.1	6.0	5.6	6.3
Other	0.5	0.5	0.5	0.8	0.7	0.9
None	56.8	56.3	57.0	65.7	59.1	69.9
Number of women	**2324**	**1221**	**1103**	**2227**	**1149**	**1078**
PNC						
Availability of doctor/nurse	3.2	5.2	2.1	5.5	4.6	6.0
Accessibility	1.8	2.7	1.2	3.6	3.6	3.7
Cost	11.0	14.7	9.0	10.4	11.3	9.9
Behavior of staff	6.7	9.9	4.8	5.9	7.0	5.2
Infrastructure of facility	2.5	2.5	2.5	6.6	8.5	5.5
Privacy	1.9	3.2	1.2	3.9	4.0	3.8
Cleanliness	5.1	5.0	5.2	9.3	11.2	8.3
Other	0.5	0.2	0.7	1.1	1.8	0.7
Number of women	**1212**	**631**	**581**	**1761**	**909**	**852**
Immunisation						
Behavior	3.0	4.2	2.3	2.4	2.2	2.4
Staff Availability	2.8	3.4	2.5	1.9	1.7	1.8
Medicine Availability	2.6	2.0	3.0	1.9	1.9	1.9
Cost	1.6	1.3	1.8	1.4	1.6	1.2
Distance	1.2	1.1	1.1	1.6	2.2	1.2
Waiting time	3.9	3.4	4.0	4.9	4.8	4.9
Too much rush	1.9	2.1	1.7	2.4	2.8	2.2
Other	0.4	0.5	0.4	0.5	0.8	0.4
Number of women	**1716**	**927**	**789**	**1649**	**848**	**801**
Experience with 108 services						
108/Ambulance	98.3	96.5	99.3	97.0	96.1	97.7
Pay for 108/Ambulance	23.2	22.6	23.5	34.9	33.1	36.5
Hospital/facility	97.6	96.5	97.8	96.8	99.2	95.0
Public	92.5	92.0	92.5	80.9	85.8	77.2
Private	7.3	7.5	7.1	19.1	14.2	22.8
Number of women	**492**	**295**	**197**	**610**	**339**	**271**

13.3 Dissatisfaction with cleanliness and other issues at hospitals during delivery

Women who had delivered in the health facility were asked about their satisfaction towards cleanliness and other issues during their stay in the facility. As presented in table 13.3, nearly one-third of the women were not satisfied with availability and quality of food and proportion expressed dissatisfaction has increased between the surveys. About one-fourth of the women in both the surveys were unhappy because of non-availability of hot water and one-fifth of them stated that cost of service as high. However, women expressed dissatisfaction towards privacy, behavior of health staff and toilet facilities had declined substantially since Baseline survey.

Table 13.3: Percent distribution of women not satisfied with cleanliness and other issues during their stay at hospital according to sampling domain, last delivery during last 3 years

	Baseline			Endline		
Issues	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Prop. of women not satisfied with						
Cleanliness	4.8	3.8	5.3	5.2	4.9	5.4
Hot water	25.9	23.3	27.1	24.5	23.5	25.2
Privacy	13.1	10.9	14.1	8.3	6.8	9.3
Food	32.5	28.8	34.4	35.3	31.2	37.8
Toilet	16.9	12.4	19.1	12.0	12.4	11.8
Bed	6.5	4.5	7.6	4.8	3.5	5.6
Services	6.5	4.8	7.3	5.2	4.4	5.6
Behavior	8.1	8.5	8.1	4.6	4.4	4.6
Space for accompanying person	9.0	6.9	10.1	7.2	7.2	7.2
Cost	20.5	18.7	21.5	18.3	17.1	18.9
Number of women	**1741**	**891**	**850**	**1816**	**928**	**888**

13.4 Satisfaction for PNC services

Women who had availed PNC services were asked whether they are satisfied with the PNC services availed in the facility and responses are presented in table 13.4. Majority of the women both in Baseline and Endline survey expressed full satisfaction with PNC services received in the visited facility and an improvement in the satisfaction level was observed in both government and private facilities sine Baseline survey. The PHCs/HSCs which play an important role in rural health care services accounted for 85 percent of women with full satisfaction of services in the

Endline survey up from 79 percent in Baseline. While, satisfaction level increased among SC/ST women between the surveys for the PNC services received at PHC/HSCs, more of non-SC/ST women than SC/ST were fully satisfied with services received at other public hospitals.

Table 13.4: Percent distribution of women by their satisfaction level for PNC services received during last 3 years by place of visit and sampling domain

Particulars	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Other Public Hospital						
Fully satisfied	75.7	71.8	79.5	88.3	86.0	90.0
Partially satisfied	21.8	26.1	18.7	10.6	11.6	9.7
Not satisfied	1.9	2.1	1.8	1.9	2.4	1.5
Don't Know/Can't say	1.1	1.4	1.4	0.0	0.0	0.0
Number of women	**377**	**202**	**175**	**659**	**382**	**277**
PHC/HSCs						
Fully satisfied	79.1	72.1	83.8	84.6	87.1	82.7
Partially satisfied	20.0	27.2	14.7	13.9	11.0	15.8
Not satisfied	0.3	0.7	0.0	1.4	1.9	1.1
Don't Know/Can't say	0.6	0.0	1.0	0.0	0.0	0.0
Number of women	**324**	**188**	**136**	**496**	**274**	**222**
NGO/Private Hospital/Clinic						
Fully satisfied	81.8	78.1	83.3	88.4	87.6	88.4
Partially satisfied	16.1	18.5	14.9	9.7	9.8	9.7
Not satisfied	1.4	2.8	0.8	1.7	2.1	1.5
Don't Know/Can't say	0.7	0.6	0.8	0.0	0.0	0.0
Number of women	**575**	**275**	**300**	**641**	**276**	**365**
Others						
Fully satisfied	75.1	67.8	79.1	81.9	85.1	79.3
Partially satisfied	20.7	28.8	15.5	10.5	10.6	10.3
Not satisfied	3.0	1.7	3.6	5.7	4.3	5.2
Don't Know/Can't say	1.2	0.0	1.8	1.9	0.0	3.4
Number of women	**149**	**82**	**67**	**104**	**58**	**46**

13.5 Incentives/benefits for delivery care and sterilization

In order to promote institutional deliveries, incentives in terms of cash and kind are being offered by the government to take delivery, post-delivery and newborn care. All eligible women were asked whether they had received incentives for delivery, amount received and mode of payment. For those who have undergone sterilization were also asked on amount received after sterilisation. Information provided in table 13.5 showed that proportion of women reported that

they have received incentives has remained more or less same at one-third in both the surveys and it has increased slightly among non-SC/ST women.

Table 13.5: Percent distribution of woman received Incentives for delivery care during previous 3 years and for sterilization, according to sampling domain

	Baseline			Endline		
Particulars	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Incentives for delivery care						
Yes	32.8	34.7	31.8	34.4	34.2	34.5
No	66.6	64.7	67.7	64.8	64.6	65.0
Don't Know/Can't say	0.5	0.6	0.4	0.7	1.0	0.5
Number of women	**2450**	**1300**	**1150**	**2299**	**1189**	**1110**
Amount received						
Up to Rs 500	7.4	6.2	8.1	3.6	1.9	4.7
Rs 501-700	47.4	46.9	47.7	47.6	53.0	44.3
Rs 701-1000	18.8	18.7	18.9	24.1	21.6	25.8
Rs 1001-5000	25.7	27.2	24.9	23.4	21.6	24.5
Don't Know	0.5	1.0	0.2	1.0	1.6	0.6
Mean	1007	1023	989	981	950	1012
Mode of payment						
Cheque	87.7	84.3	89.7	94.6	94.0	95.3
Cash	11.6	14.4	9.9	4.4	5.4	3.7
Don't Know	0.2	0.7	0.0	0.4	0.0	0.6
Number of women	**814**	**446**	**368**	**813**	**429**	**384**
Other benefits received						
Madilu Kit	24.7	24.0	25.0	27.1	28.0	26.5
Prasuti Araike	16.6	18.6	15.5	18.0	17.6	18.2
Balasanjeevini	0.4	0.3	0.4	0.7	0.8	0.7
Other	1.3	1.1	1.3	2.3	1.9	2.6
Number of women	**2450**	**1300**	**1150**	**2299**	**1189**	**1110**
Incentives for sterilization						
Not received	23.6	19.5	25.6	26.3	19.0	30.8
Up to Rs 250	31.4	28.8	32.7	17.9	16.6	18.7
Rs 251-500	15.3	18.0	14.2	14.2	16.3	12.9
Rs 501 -750	21.5	26.3	19.4	34.0	40.1	30.2
> Rs 750	2.0	3.4	1.4	3.1	4.0	2.6
Don't Know	6.0	4.2	6.9	4.5	4.0	4.7
Mean	309	341	279	390	421	359
Number of women	**2151**	**1019**	**1132**	**2312**	**1153**	**1159**

Nearly half of the women in both the surveys reported to have received amount ranging from Rs.501-700 and a one-fourth had got more than Rs.1000. Among those who received incentives, majority had received through cheque and this has increased since Baseline survey. Average amount received by the women during delivery has decreased slightly, and the decrease is more among SC/ST women.

Besides cash incentives, benefits are provided through other schemes such as Madilu kit (sanitary items for the newborn and the mother), Prasuti Araike (conditional cash incentive) for women and Balasanjeevini (free treatment for congenital anomalies for children below six years). Marginal increase in the proportion of women who received these benefits has been observed between the surveys.

The cash incentives for men/women undergoing sterilization are also being provided to compensate the wage loss due to sterilization. Among those who had undergone sterilization, about one-fourth had not received any amount and more of non-SC/ST women had not received any amount than SC/ST women. Further, proportion received amount up to Rs.500 has declined substantially and amount received more than Rs.500 has increased sharply between the surveys. This may be due to recent hike in the incentive amount. Average amount received after sterilisation has shown an increasing trend during the project years and the trend was observed among both the categories.

13.6 Satisfaction for immunization services

All women who had availed immunization services for their children aged less than 2 years were asked whether they are satisfied with the services availed in the facility and responses are presented in table 13.6. Majority of the women both in Baseline and Endline survey expressed full satisfaction with immunization services received in the visited facility. Anganawadi centers which are the main source of providing immunization in rural areas where in 95 percent of women expressed with full satisfaction of services availed in Endline survey up from 89 percent in Baseline. While satisfaction level reduced slightly for those availed services from PHC/HSCs between surveys, an improvement was observed for service received at other public hospitals and private facilities. No differentials were observed in satisfaction level for immunization services by caste.

Table 13.6: Percent distribution of women by their satisfaction level for immunization services (for children <2 years) by place of visit and sampling domain

	Baseline			Endline		
	All	SC/ST	Non SC/ST	All	SC/ST	Non SC/ST
Other Public Hospital						
Fully satisfied	90.5	91.7	90.3	94.1	94.7	93.6
Partially satisfied	9.2	8.3	9.7	4.4	4.9	4.1
Not satisfied	0.3	0.8	0.0	0.6	0.5	0.8
Don't Know/Can't say	0.0	0.0	0.0	0.0	0.0	0.0
Number of women	**325**	**172**	**153**	**471**	**263**	**208**
PHC/HSCs						
Fully satisfied	94.3	93.5	94.7	93.0	94.2	92.4
Partially satisfied	4.3	4.5	4.2	5.0	3.3	5.9
Not satisfied	0.6	0.3	0.5	0.7	0.4	0.9
Don't Know/Can't say	0.6	0.6	0.4	0.3	0.4	0.2
Number of women	**833**	**436**	**397**	**723**	**360**	**363**
Anganawadi Center						
Fully satisfied	89.2	89.3	89.1	95.3	95.3	95.3
Partially satisfied	7.6	7.6	7.6	3.6	3.3	3.7
Not satisfied	0.5	0.3	0.7	0.4	0.6	0.2
Don't Know/Can't say	2.5	2.5	2.4	0.2	0.4	0.0
Number of women	**1167**	**620**	**547**	**1279**	**655**	**624**
NGO/Private Hospital/Clinic						
Fully satisfied	89.5	91.7	88.7	95.5	93.8	96.7
Partially satisfied	8.7	6.3	9.7	4.5	6.2	3.3
Not satisfied	0.6	2.1	0.0	0.0	0.0	0.0
Don't Know/Can't say	1.2	0.0	1.6	0.4	1.5	0.0
Number of women	**171**	**76**	**95**	**235**	**97**	**138**
Other						
Fully satisfied	92.4	86.2	96.0	86.8	93.8	85.7
Partially satisfied	2.5	6.9	0.0	10.5	6.3	14.3
Not satisfied	5.1	6.9	4.0	0.0	0.0	0.0
Don't Know/Can't say	0.0	0.0	0.0	2.6	6.3	0.0
Number of women	**82**	**44**	**38**	**40**	**21**	**19**

13.7 Adverse event following immunization

After vaccination, some side effects are bound to come and most of these side effects are minor in nature. If these are properly addressed, vaccination coverage could still be improved. In order to assess the extent of side effects, all eligible women with last surviving child born during last 2 years were asked whether their child had suffered from any health problem after administration of immunization. Fever was the major side effect reported but proportion reported has declined from 43 percent to 36 percent in Endline survey. However, women reported child was suffering from abscess has increased since Baseline survey. More of non-SC/ST women compared to SC/ST reported this as side effect after immunization. Proportion of women reported rashes as the side effects has decreased from six to three percentage points between two rounds of survey. When considered proportion of children experienced any of the side effects listed, it is observed that the proportion has decreased from 45 percent to 40 percent in the project area and it was more among non-SC/ST children compared to the other category.

Table 13.7: Proportion of women reported AEFI for their children by category, for last surviving child born during last 2 years, according to sampling domain

	Baseline			Endline		
Side effects of immunization	**All**	**SC/ST**	**Non SC/ST**	**All**	**SC/ST**	**Non SC/ST**
Any	**44.8**	**43.2**	**45.6**	**40.0**	**35.0**	**43.1**
Abscess	2.4	2.1	2.6	8.5	7.3	9.2
Rash	6.2	3.6	7.7	2.6	3.3	2.1
Fever	43.2	41.9	43.8	36.0	31.0	39.1
Fainting	1.2	1.6	0.9	0.4	0.8	0.2
Anaphylactic shock	0.0	0.0	0.0	0.0	0.0	0.0
Paralysis	0.0	0.0	0.0	0.1	0.0	0.1
Weakness in limbs	0.2	0.5	0.1	0.2	0.3	0.2
Other	0.8	0.5	1.0	0.4	0.3	0.4
Number of women	**1715**	**927**	**788**	**1649**	**848**	**801**