

Do Increasing Number of Antenatal Care Visits Improve Quality of ANC Services in India

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CHAPTER -1

INTRODUCTION

1.1 Background

Among the different Sustainable Development Goals (SDGs), pregnancy-related preventable morbidity and mortality had remained unacceptably high. The vision of the World Health Organization (WHO) is that every pregnant woman and her newborn will receive quality care throughout the nine months of pregnancy, childbirth, and the postnatal period. A person's health at each stage of life affects health at other stages and also can have cumulative effects for the next generation. Women who remain healthy during pregnancy and after birth are more likely to stay healthy later in life and have better birth outcomes, influencing infancy, childhood and adulthood. A reduction of two third of mortality and three fourths of maternal mortality had been reported between 1990-2015 and also under five mortality rate declined by 53 percent (MDGs).

World Health Organization Model of Antenatal Care ANC (2016) aims to provide pregnant women with respectful, individualized, person centered care at every contact and to ensure that each contact delivers effective, integrated clinical practices (interventions and tests), provides relevant and timely information, and offers psychosocial and emotional support by practitioners with good clinical and interpersonal skills working in a well-functioning health system. It recommends a minimum of eight contacts: five contacts in the third trimester, one contact in the first trimester, and two contacts in the second trimester. With the help of antenatal care (ANC), different types of health care functions for the mother and her newborn have improved dramatically, including health promotion, screening, diagnosis, and disease prevention. During pregnancy, high-quality antenatal care is essential to ensure not only a healthy pregnancy for mother and baby but also an effective transition to positive labour and childbirth. Services should include the provision of education and basic easily understood information on health care for expectant parents (WHO 2021).

Maternal health refers to the health of women before and during pregnancy, at childbirth and during the postpartum period. Before pregnancy, the overall health and lifestyle choices of parents can affect fertility, maternal health and their infants' probability of developing chronic conditions later in life. People contemplating pregnancy should be screened for health problems, which need to be

identified and managed (WHO Fact Sheet). According the estimates of World Health Organization (WHO, 2020), every day almost 800 maternal deaths were reported due to pregnancy complications and child birth, in every two minutes one maternal death was reported in the world. Around 94 percent of maternal deaths are reported in low- and middle-income countries (WHO estimate 2021).The high number of maternal deaths in some areas of the world reflects inequalities in access to quality health services and highlights the gap between rich and poor. The MMR in low-income countries in 2017 is 462 per 100 000 live births versus 11 per 100 000 live births in high-income countries.

Maternal mortality and morbidity are global public health problems. Despite global efforts, the reproductive health problems of women have not yet been fully addressed. Antenatal care is among the most effective interventions to mitigate maternal and child mortality and morbidity. It is an entry point for delivery care, postnatal care, and child immunization. During ANC visits, pregnancy-related complications, pre-existing health conditions are screened, diagnosed, and appropriate interventions are delivered for pregnant women. Behavioural change communication on personal hygiene, nutrition, and utilization of available services and interventions is provided to women. Today's ANC addresses a wide range of services, including, identifying threats during the prenatal period, birth preparedness and complication readiness, family planning, child feeding options, and nutritional counselling during pregnancy and after birth.

1.2 Historical Background of Maternal and Child Health in India

The importance of safe motherhood practices and child survival cannot be overstated in a country that has experienced high infant, child mortality and maternal mortality. From time to time, the government of India has initiated concrete steps for improving maternal and child health. In 1992–93, the Child Survival and Safe Motherhood Programme was initiated by bringing together several key child survival interventions with safe motherhood and family planning. In 1996, Safe Motherhood and Child Health Services were incorporated into the Reproductive and Child Health Regulation Programme. Maternal and child health (MCH) gained its importance in India as a National Health Programme in 1997 with the launch of the Reproductive and Child Health-I (RCH-I) initiative. RCH programme integrates all the related programmes of the eight plans and it aims to bring all RCH services easily available for the community. RCH-II was also initiated in 2000, with an objective to reduce the maternal morbidity and mortality. In RCH-II a special training was provided to the MBBS doctors for the obstetric management. In 12th five year plan (2012-2017)

Reproductive, Maternal, Newborn, Child and Adolescent Health RMNCH + A was launched with an objective to reduce the IMR to 25 per 1000 live births and MMR to 100 per 100,000 live births by 2017. The National Population Policy adopted by the Government of India in 2000 reiterates the government's commitment to Safe Motherhood Programmes within a wider context.

In order to provide accessible, affordable, accountable, effective, and reliable healthcare, especially to poor and vulnerable sections of the rural population, the National Rural Health Mission (NRHM) was launched on April 12, 2005. Improving reproductive, maternal, and neonatal, child, and adolescent health became central to achieving national health goals under India's National Health Mission (NHM), created in 2013, which subsumed the NRHM and the National Urban Health Mission (NUHM). Under the NHM, the Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakaram (JSSK) schemes were introduced. The JSY is the largest ever conditional cash transfer program worldwide; it entitles people to cash benefits subject to child delivery at public health centres.

The Ministry of Health and Family Welfare, Government of India, has launched a new initiative, namely, SUMALV- Surakshit Matritva Aashwasan," with an aim to provide assured, dignified, respectful, and quality healthcare at no cost and zero tolerance for denial of services for every woman and newborn visiting the public health facility in order to end all preventable maternal and newborn deaths and morbidities and provide, a positive birthing experience. The expected outcome of this new initiative is "**Zero** Preventable Maternal and Newborn Deaths and high quality of maternity care delivered with dignity and respect".

1.3 Maternal Health Situation India

India has made significant progress in achieving reductions in maternal and newborn mortality and morbidity. Increasing the investments in improving access to and promoting institutional births in the country has helped the country achieve its current MMR of 130 per 1 lakh live births (SRS 2016). However, the rate of decrease in maternal mortality in the country has not kept pace with the improvements in institutional births. It is also important to understand that for mothers and newborns, the period around childbirth is the most critical for saving the maximum number of lives, preventing stillbirths, and improving the quality of services, which will have the maximum impact on achieving the desired reductions in the country to meet SDG targets. A commitment made by India itself to the latest UN target for the Sustainable Development Goals (SDGs) for MMR of 70

per 1,00,000 live births by 2030. As per NHP (National Health Policy) 2017, the target for MMR is 100 per 100,000 live births by 2020.

1.4 Review of Literature

Singh Abhisek (2014), conducted an empirical study on the quality of antenatal interventions in India, in which it was mentioned that four ANC visits, the consumption of 90 or more IFA tablets, two or more tetanus injections, different investigations of blood and urine samples, and frequent monitoring of blood pressure and weight measurement were recommended to each pregnant lady. By accessing the data of the District Household Survey, a logistic regression technique was used to investigate the association between ANC intervention and neonatal mortality in India. It was found that the use of IFA during pregnancy can reduce preterm delivery, increase the infant birth weight, and also prevent birth from asphyxia. By accessing the data of IIPS (2010), only half of pregnant women in the age group of 15–49 years availed themselves of three or more ANC checkups, and 67 percent received the tetanus injection.

Kranti S. et al. (2009) have used the SRS data of different indicators of maternal health in India, and shown that 38 percent of maternal deaths in India were caused by hemorrhage, followed by anaemia, especially due to the iron deficiency. The study reveals that the number of ANC checkups, institutional deliveries, and deliveries conducted by health professionals has witnessed a substantial improvement from NHFS-I to NFHS-IV, but anaemia among pregnant women has increased drastically. Also from NHFS-I to NFHS-IV, a substantial increase has been seen in the quality of ANC in terms of tetanus injection, which increases from 54 percent to 76 percent, and the use of IFA tablets, which increases from 50 percent to 65 percent. Basic maternal care among the illiterate and lowest wealth quintiles is very low as compared to the literate and highest wealth quintiles. The study highlighted the fact that there is a dearth of skilled staff to attend to the pregnant lady at the time of delivery.

Singh Ranjana (2019) et al. (2019) studied maternal health and its determinants in Uttar Pradesh. A sample of 2208 women who delivered during the 15 months prior to the survey. From the study, it was found that two third of women visited three or more times for an ANC checkup and only one fourth had availed the postnatal care services 42 days after the delivery. Women with three or more ANC visits also availed more postnatal care services than those having the less than three ANC

visits. Marginalised women received less ANC care than others. The main obstacle to quality ANC care is the lack of infrastructure and instruments in the facilities.

Chemir Fantaye et al. (2014) conducted an empirical analysis of antenatal care services and satisfaction scores among pregnant women in Ethiopia. A sample of 389 respondents was taken from the different health facilities, and it was found that 60 percent of the pregnant women are satisfied with the ANC services they receive at different health facilities. Logistic regression was used to determine the impact of different socio-economic indicators on ANC services. Logistic regression coefficients show that satisfaction levels were lower among mothers with higher education, mothers with income levels greater than 1000 Birr, and mothers who had unplanned pregnancies.

Rakhi Dandona et al (2022) conducted a primary study for assessing the quality of antenatal care services in public sector facilities in India. From two districts in Bihar, one CHC and one SDH were selected randomly, and a random sample of 814 pregnant women who sought ANC services under PMSMA were interviewed. The quality of ANC service was considered full if a woman received all of these services in that visit: weight check, blood pressure and abdomen check, urine and blood sample taking, and iron, folic acid, and calcium tablets. The study reveals that only one-third of the pregnant women had received quality ANC services under the PMSMA, and even less were informed about the services that they had received. Two components that resulted most in poor quality of ANC services were urine examination and abdomen check-up. Blood examination was relatively higher than urine examination. Weight and blood pressure measurements and the provision of IFA and calcium tablets showed consistently high coverage across all the facilities, irrespective of the pregnancy trimester.

Gujan Kumar et al. (2019) have studied the utilization, equity, and determinants of full antenatal care in India. The study is based on the NFHS-4 data set, and its objective was to analyze the performance of NFHS-4. The study reveals that in India, only one fifth of pregnant women utilized the full ANC services, one half of pregnant women completed four or more ANC visits, 30 percent consumed IFA tablets for a minimum period of 100 days, and 91 percent had taken one or more tetanus injections. It was found from the study that there is low utilization of full ANC facilities among illiterate pregnant women, pregnant women in lower wealth quintile sections, a lack of father's participation during ANC visits, higher birth orders, and unintended pregnancy.

Vora S. Kant et. al. (2009) conducted an empirical study on maternal health situation in India, and they found that hemorrhage and anemia were major maternal killers in India. In 2005-06 half of the pregnant women had not completed the three ANC visits and a quarter of the pregnant women had not received the TT injections. From their study also it was found that majority Indian pregnant women were anemic and they are receiving the poor quality of IFA tablets.

1.5 Rationale of the Study

The increase in the number of antenatal care follow-up visits facilitates pregnant women's learning about their health behaviours from skilled health personnel. They have a better understanding of the warning signs of different complications during pregnancy. They also receive different micronutrient supplements, treatment for hypertension, and immunisations from time to time during the ANC visits. The regular ANC visits allow the women to receive vital services for their health and the health of their future babies. The World Health Organization (WHO) recommended 4–8 ANC visits to reduce prenatal mortality and improve women's experiences of their healthcare.

In India, during the 1990s, only three ANC visits were recommended for pregnant women, and the first ANC visit would be in the 2nd trimester (12–16 weeks). However, from 2005 onwards, the number of recommended ANC visits has been increased to four at the regular interval of time. The 2016 World Health Organisation (WHO) guidelines for antenatal care (ANC) shift the recommended minimum number of ANC contacts from four to eight, specifying the first contact to occur within the first trimester of pregnancy.

According to (WHO) estimates Approximately 303,000 women and adolescent girls died from pregnancy and childbirth-related complications in 2015 and also, 2.6 million babies were stillborn. Most of the maternal and child deaths were reported in low- and middle-income countries. These maternal deaths could have been prevented if the pregnant women or adolescent girls had been able to access quality antenatal care (ANC).

According to the World Health Organisation (WHO), many health problems in pregnant women are possibly prevented, detected, and treated during antenatal care visits with trained health workers, so all pregnant women should availed at least four antenatal visits, with the first antenatal visit preferably occurring in the first trimester. The frequent ANC visits are vital for providing counselling to mothers about the care they should take during pregnancy and in preparation for

childbirth. With the increasing number of antenatal care visits, pregnant women are provided with tetanus toxoid immunisation, malaria prophylaxis, iron and folic acid tablets, and nutrition education. Such counselling can avert a higher degree of morbidity and mortality for both mother and newborn.

RCH programme guidelines in India also recommend a minimum of four ANC visits during pregnancy. It was found from the data of the NFHS-V that 58 percent of women in India had completed 4 or more ANC visits, but there was variation at the state level, ranging from the lowest 25 percent in Bihar to the highest with more than 80 percent in Jammu and Kashmir, Kerala, and Tamil Nadu. There was not any significant increase in the percentage of pregnant women having 4 or more ANC visits during NFHS-4 and NFHS-5 in five states, while in six states there was a decline. In four states, there was an increase of less than 10 percentage points in the number of more than four ANC visits. The average number of ANC visits as per NFHS-4 in J&K, Kerala, Karnataka, and Tamil Nadu is more than 8, and there are a few women who have had more than 20 ANC visits also.

While, as per the RCH guidelines, pregnant women should be provided all recommended RCH services during ANC services, the NFHS-5 shows that less than 30 percent of women in India have received full ANC services. Similarly, in Jammu and Kashmir, despite having a huge chunk of pregnant women (80 percent) complete four or more ANC visits, less than one fourth of them availed of full ANC services. So, the current burning issue is whether there exists a causal relationship between the number of ANC visits and the quality of ANC services. We find very limited work in this area. This study proposes to look into this aspect, with a special focus on J&K.

1.6 Objectives

The objectives of the study are to:

1. Study the State wise trends in the No. of ANC visits and Utilization of Full ANC Coverage.
2. Analyse the socio-economic and demographic correlates of 4+ANC visits in India and full ANC coverage in J&K

1.7 Methodology

We have used data from various rounds of NFHS collected in India during 1992 and 2019-21 for the present study. Various rounds of NFHS surveys conducted in India have collected information on

utilization of ANC services including the number of visits, TT injections, IFA, weight, diagnostics of anemia, information regarding ANC complications, danger signs and advice on the importance of institutional of delivery, cord care, breast feeding, family planning etc. Information about the number of ANC visits, IFA and TT was collected in all 5 phases of NFHS but information about counseling has been collected in the last three phases only. Full ANC services was calculated whether a pregnant woman has received four or more antenatal checks, received at least one tetanus toxoid injection, and took iron and folic acid tablets or syrup for 100 days or more.

As per the RCH guidelines, all pregnant women should be weighted, her blood pressure is to be measured, her urine and blood is to be examined and her abdomen is also examined during antenatal care visits. If all these investigations are undertaken we classified a woman that she has received comprehensive diagnostic services during ANC. Similarly, pregnant women should receive detailed information on specific pregnancy complications viz vaginal bleeding, convulsions, prolonged labour, severe abdominal pain, high blood pressure and information about the place where to go if she experiences any pregnancy related complications. NFHS 4 and 5 has collected information about this aspect from women who had a live birth in the 5 year preceding the survey. If a woman had received information about all these specific pregnancy complications during ANC, she was considered to have received comprehensive information on pregnancy complications.

RCH guidelines also envisage that women should receive advice on importance of institutional delivery, cord care, breastfeeding, keeping the baby warm and family planning during ANC visits. Information about this aspect is available from NFHS-3 onwards. We classified a woman to have received comprehensive delivery related advice if she was given information about all these 5 aspects during any of her meetings with a community health worker

NFHS also has collected information on various social, economic and demographic characteristics of women. No. of visits was categorized into three categories of No ANC Visit, 1-3 visits, 4-6 visits, 7-10 visits and 11-20 visits. A Bivariate and Multivariate technique was used to know the association of ANC visits on the quality of ANC services in India.

We considered several relevant background characteristics and assessed their associations with the various indicators of quality of ANC services. The explanatory variables considered were age of the mother (15-19 years, 20-29 years, 30-39 years and 40-49 years, maternal age at the child's birth (<19

years, 20-29 years, or 30 years), maternal educational attainment (no formal education, primary school, secondary school, or higher education (12 years), household caste (scheduled caste or scheduled tribe, other backward class, or other caste), household religion (Muslims, Hindus, Sikh, Christian, other), area of residence (urban or rural), No. of Children Ever Born (1, 2, 3 and above), Currently Working (No or Yes) and Final say on woman's health care (Women, Women and Husband, Woman and someone else, Husband, Someone else). Household wealth quintile (defined by the NFHS wealth index as the relative index of household wealth based on the standard set of assets owned by the household, including ownership of consumer items and dwelling characteristics; 5 categories of wealth quintiles (poorest, poorer, middle, richer, and richest) from the NFHS wealth index were used). All analyses were performed using SPSS software, version 18. Data were analyzed from January to March, 2021.

We considered all the States for selection except the States located in the North East. Remaining States were divided into five regions of North, Central, East, West and South. From each region we selected one State having the highest proportion of women having more than 4 ANC visits. Accordingly, we selected Jammu and Kashmir from North, Madhya Pradesh from Central India, West Bengal from East, Gujarat from West and Tamil Nadu from South.

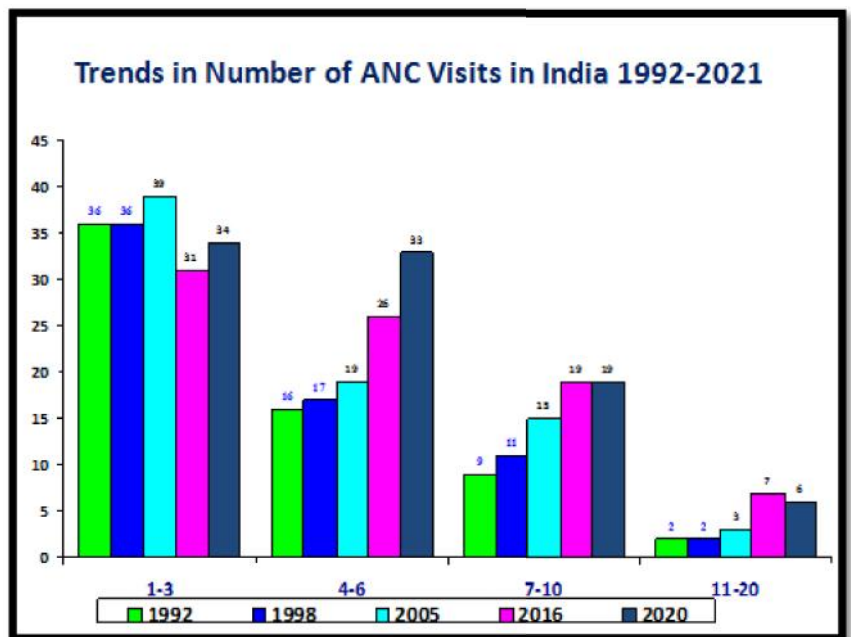
CHAPTER 2

ANTENATAL CARE VISITS IN INDIA

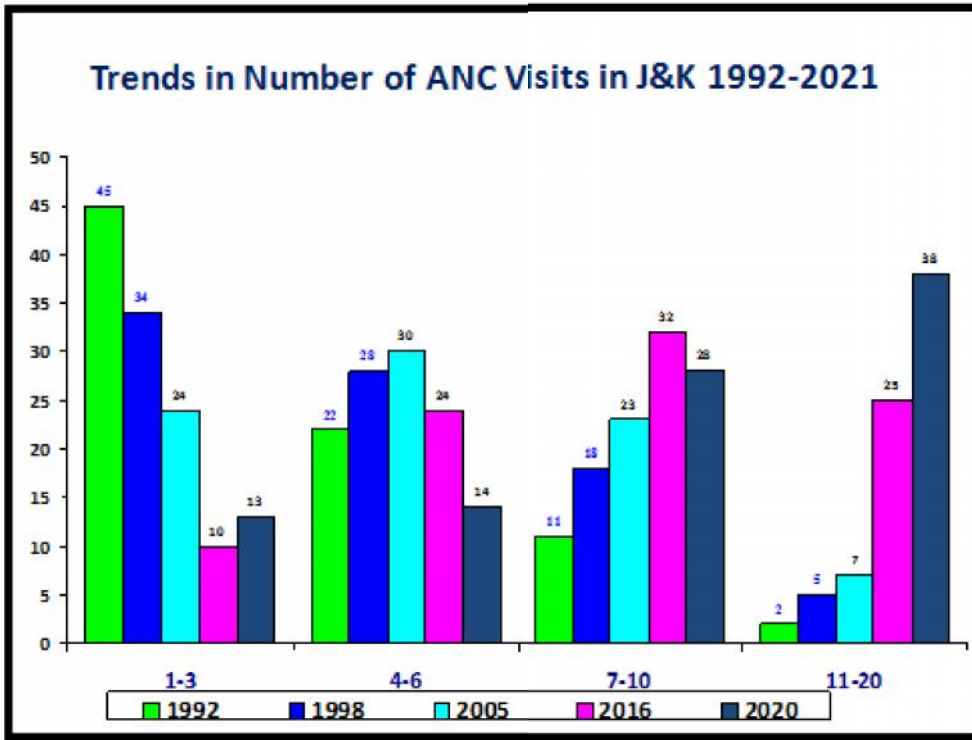
2.0 Number of ANC Visits in India

Antenatal care (ANC) reduces adverse health outcomes for both mother and baby during pregnancy and childbirth. Antenatal care is essential for protecting the health of women and their unborn children. Through this form of preventive health care, women can learn from skilled health personnel about healthy behaviours during pregnancy, better understand warning signs during pregnancy and childbirth, and receive social, emotional and psychological support at this critical time in their lives. Through antenatal care, pregnant women can also access micronutrient supplementation, treatment for hypertension to prevent eclampsia, as well as immunization against tetanus.

The present study shows that the percentage of women not visiting a facility for ANC has drastically declined from 38 percent in 1992-93 to 8 percent in 2019-21. While as the percentage with 4-6 visits has increased from 16 percent in 1992 to 19 percent in 2019-21 and the proportion of women with 7-10 visits has increased from 9 percent to 19 percent between 1992 and 2015. The percentage of women with 7-10 visits has remained unchanged at 19 percent



between 2015 and 2021. There is not much change in the proportion of women having more than 10 ANC visits in the country between 1992 and 2021. Thus, two-thirds of the women in the country have paid 3-6 ANC visits during 2019-21. The NRHM program was launched in 2005, and it was found that the almost all the RCH indicators started to improve with different government interventions. It was found that the proportion of women with no ANC visit had started to decline in 2005-06 and the percentage of women with 1-3 and 4-6 ANC visits has started to increase.



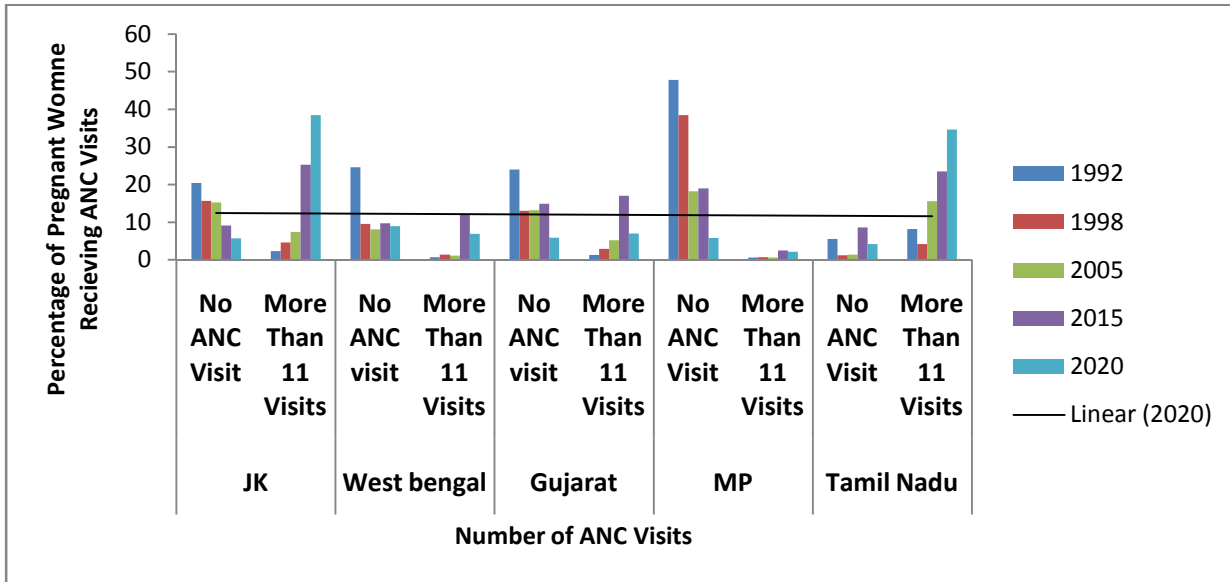
If we look at J&K, 80 percent of the women have visited for ANC services at least once during 1992 and this percentage has increased to 94 percent during 2019-21. However, more and more women are visiting 7 or more times for ANC services and the percentage of women paying 6 or lesser number of visits is declining with each phase of NFHS. For example, the percentage of women with

4-6 ANC visits has declined from 30 percent during 2005-06 to 14 percent in 2019-21 and the percentage of women with 7-10 visits has increased from 11 percent in 1992-93 to 28 percent. However, the highest increase can be seen in the percentage of women having 11-20 visits, up from only 2 percent in 1992-93 to 38 percent in 2019-21.

Almost every State has experienced significant improvement in the number of ANC visits and this improvement is most pronounced in Rajasthan, Uttar Pradesh, Bihar, Orissa, Jharkhand, Assam, West Bengal, Orissa and Madhya Pradesh. These are the so called demographically poor states. But in these States, the improvement can be seen from NO ANC visits to 1-6 visits and very few women having more than 10 ANC visits. Southern States like Andhra Pradesh and Karnataka has generally witnessed improvement in the percentage of women having 4-6 ANC visits and percentage of women going for 7-10 ANC visits has increased by 10 percentage points between 1992 and 2021.

The percentage of women with 11 or more ANC visits has not changed much between 1992 and 2021 and remained at less than 5 percent. Kerala has not experienced much change in the percentage of women having 7-10 visits as around 43-50 percent of the women have 6-10 ANC visits but percentage having 11 or more ANC visits has increased from 25 percent in 1992 to 45 percent in 2015-16. Like J&K, in Tamil Nadu also the percentage going for more and more ANC visits is increasing and more than three-fourth of women have had more than 7 ANC visits during 2019-20.

Figure 3: State Wise Percentage of Women Availing Number of ANC Visits from 1992-2020



2.1.1 Distribution of Women by at least one ANC

Table 2 presents the percentage of women with the number of visits availed at different health facilities during the nine months of their pregnancy. In India, it was found that the practice of ANC visits for pregnant women during their nine months of pregnancy was satisfactory. In India, it was found that in 1992, 62 percent of the pregnant women visited at least once for an ANC checkup at the different health facility, which increased to 93 percent in 2020, with an overall increase of 48 percent during the period of two decades. Among the selected states, except Madhya Pradesh; all other states (Jammu and Kashmir, West Bengal, Gujarat, and Tamil Nadu) were performing better than the national average. In Madhya Pradesh, in 1992, only 52 percent of the pregnant women visited the health facility at least once for an ANC checkup, which increased to 94 percent in 2020, an increase of 80 percent. Tamil Nadu is the best performing state and already had a higher proportion of pregnant women availing of the ANC service. In 1992, 94 percent of the pregnant women in Tamil Nadu had availed of at least one ANC visit, which increased to 96 percent in 2020. In Jammu and Kashmir, in 1992, 80 percent had availed of at least one ANC visit, which increased to 95 percent in 2020. In Gujarat and West Bengal, three-fourths of pregnant women visited at least once for an ANC checkup in 1992, while in 2020, it increased to 91 percent in West Bengal and 94 percent in Gujarat. In Jammu and Kashmir, West Bengal, Gujarat, and Tamil Nadu, the concept of importance of ANC was already there before the inception of different NHM programmes in India. From 2005 onwards, when NHM was launched in India, a substantial improvement has been noticed

in terms of ANC visits in India. From 2005 to 2020, at least one ANC visit in India increased by 19 percent. Among the states, Madhya Pradesh has witnessed a remarkable progress in case of at least one ANC visit with the inception of NHM program. During 2005 to 2009, highest was seen in Madhya Pradesh (14 percent), followed by Jammu and Kashmir (11 percent), West Bengal (8 percent), but Tamil Nadu has witnessed a decline of 5 percent, because Tamil Nadu has already achieved before NHM was launched.

2.1.2 At Least Four ANC visits

Table: 2, also shows the percentage of pregnant women with at least four ANC visits. In India, during 1992, only 27 percent of pregnant women visited at least four times for an ANC checkup, which increased to 58 percent in 2020. Except for Madhya Pradesh, all other states (Jammu and Kashmir, West Bengal, Gujarat, and Tamil Nadu) witnessed better performance than the national average. In 1992, 67 percent of pregnant women in Tamil Nadu completed at least four ANC visits, while in Madhya Pradesh, only 13 percent of pregnant women completed at least four ANC visits. Among the selected states, Madhya Pradesh has availed the least of the service of at least four ANC visits, but its performance in terms of increasing the number of ANC visits is much higher than other states, while in Tamil Nadu, more than 90 percent of pregnant women have already completed at least four ANC visits. In Jammu and Kashmir, 35 percent of pregnant women had completed at least four ANC visits in 1992, which increased to 81 percent in 2020, an increase of 34 percent from 1992 to 2020.

In the case of at least four ANC visits, after NHM, again Madhya Pradesh has witnessed a substantial increase with 156 percent points, followed by West Bengal (95 percent), Gujarat (54 percent). The least increase has been found in the case of Tamil Nadu, with only a 3 percent increase. In India, aggregated as a whole, a 57 percent increase has been found for at least ANC visits.

2.1.3 ANC in First Trimester

According to WHO recommendations, all pregnant mothers are better off starting ANC booking within the first trimester of pregnancy (within 12 weeks). The timing of initiating the 1st ANC visit is paramount for ensuring optimal care and a healthy outcome for both mother and child. In the first ANC visit, there is screening and testing that is most effective early in pregnancy.

Table: 2 also shows the percentage of women who visited during the 1st trimester for an ANC visit. Data from NHFS-1 in 1992 shows that in India, only 24 percent of pregnant women visited for an ANC checkup during the 1st trimester, which increased to 59 percent in 2020. It was found that Madhya Pradesh is the only state among the selected states that has a low performance rate in case of ANC visits during the 1st trimester, while Tamil Nadu is again at the top in terms of ANC visits during the 1st trimester. In Jammu and Kashmir, 31 percent of pregnant women visited for an ANC checkup in the 1st trimester, which increased to 87 percent in 2020, in West Bengal, 24 percent in 1992, which increased to 73 percent in 2020.

After the launch of the NHM program in India, it was found that maximum benefits were reaped by Madhya Pradesh, followed by West Bengal and Jammu and Kashmir. In Tamil Nadu, the role of the NHM programme in terms of ANC visits during the first trimester is not visible, because there was already a significant proportion of pregnant women who use the ANC service during the first trimester. In 2005, only 41 percent and 39 percent of pregnant women in Madhya Pradesh and West Bengal visited for an ANC checkup during the first trimester, respectively, which increased to 73 percent in West Bengal and 76 percent in Madhya Pradesh by 2020, with an increase of 87 percent in West Bengal and 85 percent in Madhya Pradesh. In India as a whole, after the NHM program, there was an increase of 60 percent of ANC visits during the 1st trimester.

2.1.4 Tetanus Toxide Injection

Vaccination during pregnancy has reduced the risk of preterm labour, low birth weight, intrauterine growth and other types of different risks. In India, it was found that during 1992, 54 percent of pregnant women were boosted with two or TT injections, while in 2020, it increased to 70 percent. Among the selected states, over a period of two decades (1992-2020), in Madhya Pradesh there was 100 percent increase of pregnant women who received the two or more TT injection, followed by West Bengal (30 percent), and Gujarat (29 percent). From the NFHS-data set, it was found that in Jammu and Kashmir and Tamil Nadu, 69 percent and 90 percent of pregnant women received two or more TT injections during 1992 respectively, which increased to 87 percent in Jammu and Kashmir, while in Tamil Nadu it declined to 82 percent. After the NHM program, increase in two or more TT injection in Madhya Pradesh has increased much higher than other states.

2.1.5 IFA tablets

In 2018, POSHAN Abhiyaan was launched by the government of India with an aim to reduce anemia by three percent among children, adolescents, women in the reproductive age group, and pregnant women during the period of 2018 and 2022. Also, an Anemia Mukht Bharat (AMB) strategy has been formulated (also known as the Intensified National Iron Plus Initiative) for holistic and comprehensive management of anemia among the six target age groups, including women in the reproductive age group. In all states and union territories of India, 180 iron and folic acid (IFA) tablets are given in the antenatal period and 180 IFA tablets are given in the postnatal period to all pregnant women. If pregnant women are found to be clinically anemic, they are given double doses of tablets as part of their treatment regimen. In India, it was found that consumption of IFA tablets has increased from 65 percent to 88 percent from 2005 to 2020. In 2020 (NFHS-5), it was found that in Jammu and Kashmir (72 percent), the consumption rate of IFA during pregnancy was below the national average and it was higher than the national average in Madhya Pradesh (93 percent), West Bengal (96 percent), Gujarat (89 percent), and Tamil Nadu (99 percent).

2.1.6 100 or More IFA

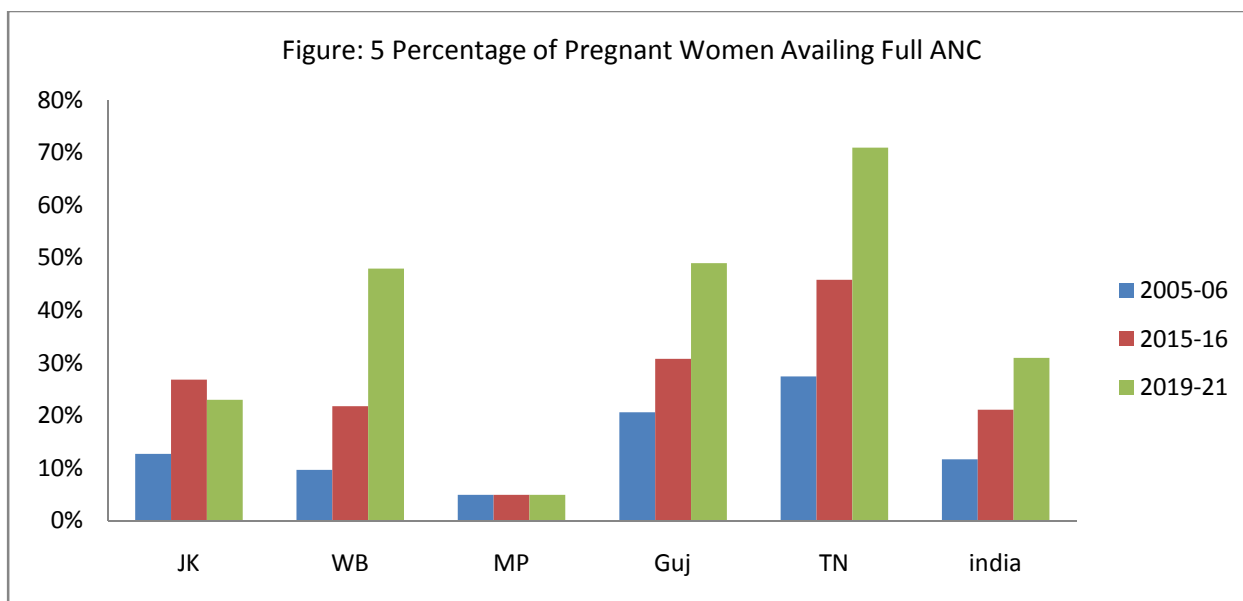
NHM has been effective in encouraging pregnant women to increase their consumption of IFA tablets, and there has been a significant increase from 2005 to 2020. In India, only 15 percent of pregnant women are taking 100 or more IFA tablets during pregnancy, which increased to 44 percent in 2020, an increase of about 193 percentage points. Among the selected states, it was found that in Jammu and Kashmir, consumption of 100 or more IFA tablets during pregnancy was lowest, at only 30 percent in 2020, while in Tamil Nadu it was 82 percent. Except for Jammu and Kashmir, all the selected states have shown a remarkable increase in the consumption of 100 or more IFA tablets during 2005–2020, with more than 100 percent points.

2.1.7 Intestinal Parasite Drug

It was found that in India, only 4 percent of pregnant women taking the intestinal parasite drugs in 2005 that increased to 31 percent in 2020. In selected states, lowest consumers of intestinal parasite drugs were found in Jammu and Kashmir (9 percent), followed by West Bengal (25 percent) during 2020. In Tamil Nadu 42 percent of pregnant ladies are taking the intestinal parasite drugs in 2020.

2.2 Full ANC

WHO recommended four or more ANC visits, two or more tetanus injections, and 100 or more IFA tablets, which is known as full ANC. It was found that in India, only 12 percent of pregnant women had availed the full ANC service in 2005, which increased to 31 percent in 2020. Among the selected states, Jammu and Kashmir was at the bottom in terms of full ANC services, though the number of ANC visits is very high as compared to other states in India. The quality of ANC services in Jammu and Kashmir has deteriorated over time, and less than one fourth of pregnant women availed access to full ANC services. In West Bengal, Madhya Pradesh, and Gujarat, full ANC services were availed of by 48 percent, 31 percent, and 49 percent of pregnant women, respectively, in 2020. In Tamil Nadu, more than 70 percent of women have availed the full ANC service by 2020.



2.3 Differentials in Full ANC

Socio-economic characteristics have an effective role in the utilization of full ANC services. Women with poor socio-economic background may have less accessibility to different parameters of antenatal care. Table: 3 shows the different background of women received full ANC during 2015-2020.

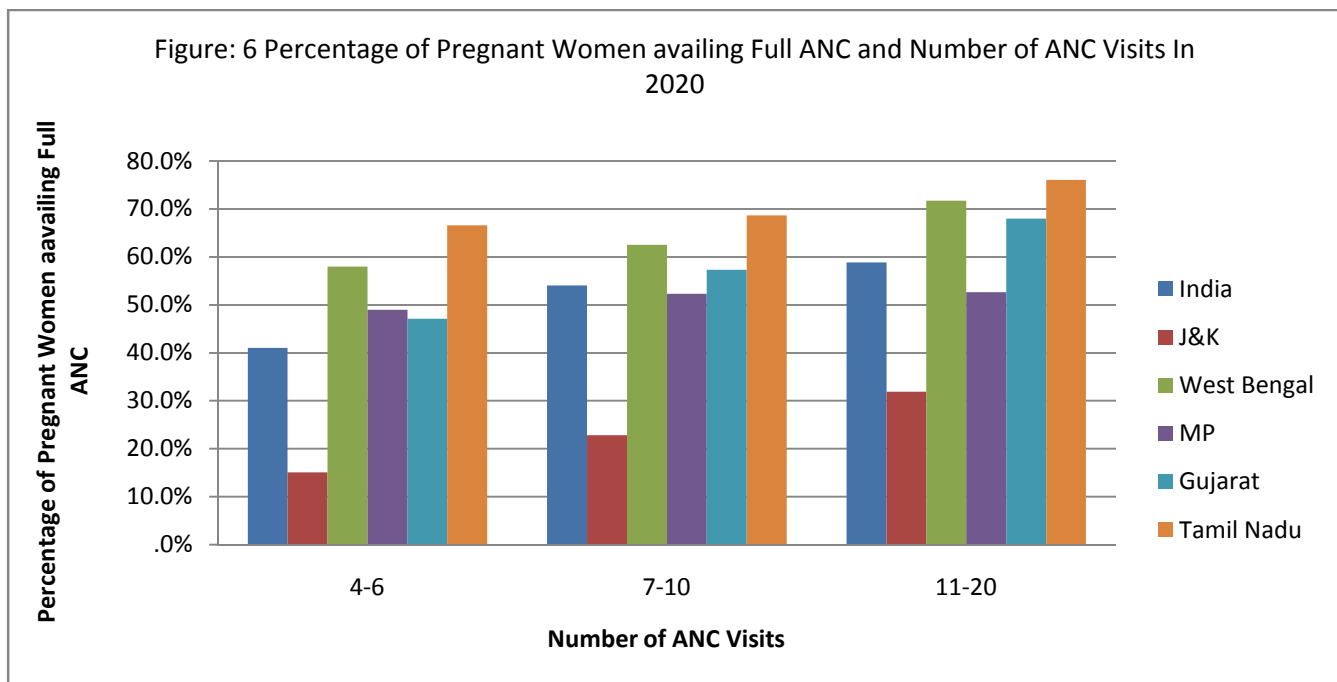
Number of ANC Visits

The quality of a full ANC will increase with the increase in ANC visits. Except in Jammu and Kashmir, in all other states of India, including at the national level, a positive relationship has been found between the number of ANC visits and the quality of full ANC. The percentage of women who availed full ANC services was 23 in case then women had 4-6 ANC visits in 2005-06 and this

percentage increased to 54 percent in case the number of visits was 11-20. Similarly, the percentage of women with full ANC increased with increase in the number of ANC visits both in 2015-16 and 2019-21. But the impact of higher ANC visits seems to have stagnated at around 55-59 percent. In other words women with 11-20 visits do not seem to have much advantage so far as full range of ANC services is concerned.

Increasing number of ANC visits in Jammu and Kashmir is not resulting in improving full range of ANC. In 2005-06, 18 percent of women having 4-6 ANC visits had received full range of ANC services and this percentage marginally increased to 25 percent among women with 11-20 ANC visits. Similarly, the percentage of women with 4-6 visits who have received full ANC in 2015-16 was 26 percent and has marginally increased to 32 percent for women with 11-20 ANC visits. During 2019-21 also only 32 percent with 11-20 ANC visits have received full ANC services.

Among the selected states, Tamil Nadu is performing better than other states. In 2020, 76 percent of pregnant women in Tamil Nadu availed of full ANC service in 11–20 ANC visits, followed by West Bengal (71 percent), Gujarat (68 percent) and Madhya Pradesh (53 percent). In all the states, an increasing trend was found in the full ANC over the period 2005–2020. In West Bengal, Madhya Pradesh, Gujarat, and Tamil Nadu, around half of the pregnant women availed of full ANC during 4-6 ANC visits, and this trend increased from 2005 to 2020.



Age of Women

Akashi A.R. et al. (2017), Sulaimon et al (2020) have found poor utilization of ANC services among the higher age groups of pregnant women. According to Table 3, pregnant women over the age of 40 had less access to full ANC services than other age groups. It was also found that between the age group of 15–19 years, during 2005–2015, an upward trend was found in the full ANC among all selected states except Jammu and Kashmir. During 2020 (NFHS-5), in West Bengal and Gujarat, around 50 percent of pregnant women in the 15–19 age group availed of full ANC, while in Tamil Nadu, 68 percent received the same service. In Jammu and Kashmir, only 10 percent of pregnant women in the 15–19 age group received the full ANC. In the age group of 30-39, most pregnant women received the full ANC in all states as well as at the national level. Yet again, the performance of full ANC among different age groups was poor in Jammu and Kashmir as compared to other states and performed below the national average.

Place of Residence

Within a country or a state, antenatal care services vary based on rural and urban distribution. In urban areas, there is good access to different types of health facilities, which results in better health care as compared to rural areas. The same has been revealed from the different rounds of NFHS data shown in table 3. In all the selected states as well as at the national full ANC service, urban areas received more than rural areas. Among the selected states, the maximum disparity in full ANC was found in Madhya Pradesh, followed by West Bengal and Gujarat, and the lowest variation was found in Jammu and Kashmir and Tamil Nadu. At the national level, a remarkable variation of 10 percent points was found between rural and urban areas with full ANC. From 2005 to 2020, in both rural and urban areas, an upward trend in full ANC was found in all states. On the basis of usual residents, it was found that visitors received the full ANC service more than usual residents. Visitors are considered those who visited the maternal home. From this analysis, it was inferred that care during pregnancy was more prevalent in the maternal home than in the in-laws. It was also found that in Jammu and Kashmir, disparity in full ANC between usual residents and visitors was higher as compared to the national average, by 9 percent points. The lowest disparity was found in Madhya Pradesh and Tamil Nadu.

Education of Women

Disparities in full ANC services are related to pregnant women's educational attainment. Table 3 presents the full ANC with the different educational attainments, and it was found that utilization of

the full ANC was lower among the illiterate women than the educated ones. It was revealed from the data that full ANC increased with the increase in educational attainments of the pregnant women, both in the selected states and at the national level. Among the illiterate pregnant women, only 17 percent of pregnant women in 2020 availed themselves of full ANC services in India, while 42 percent of pregnant women with an education level of 10th grade and above received the full ANC service. Among the selected states, it was found that the disparity rate of full ANC utilization on the basis of educational attainments was lowest in Tamil Nadu, followed by Jammu and Kashmir, while the highest difference was found in Gujarat, Madhya Pradesh, and West Bengal. Over a period (2005–2020), the disparity rate of full ANC has declined between illiterate and literate women, both among the selected states and at the national level.

Religion of Women

Among different religions, a disparity was found in the utilization of full ANC, both at the national and at the selected state level. It was found that during 2020, the Sikh community had availed of the highest full ANC service, while the lowest ANC service was availed by the Muslim community. But it was found that the highest increase over the last 15 years was found among Muslims, followed by Hindus and Sikhs. Among the selected states, Muslims in Jammu and Kashmir are mostly deprived of full ANC services compared to Hindus and Sikhs, as compared to other states of India (Table: 3).

Caste

Among the different castes of India, other than the general population, all other castes utilize the least number of ANC full services. The scheduled tribes in India avail the least full ANC services, followed by scheduled castes and OBC. But again, the performance of increasing in the full ANC among scheduled tribes is better than the other casts, and all casts had an increasing trend over the period of 2005 to 2020.

Number of Children

A declining trend has been found in full ANC among the women with the increase in the number of children of women in India. In 2020, it was found that Indian women with three or more children utilized 15 percent fewer points of full ANC than those who had only one child. Among the selected states, in Madhya Pradesh and West Bengal, a remarkable difference was found in the full ANC, with a difference of more than 10 percentage points.

Working Status

Full ANC among working women is higher than that among nonworking women in India. In the case of full ANC, an insignificant difference was found between working and non-working women. Jammu and Kashmir recorded a significant difference of more than seven percent, while in all other states the difference is only less than two percent points.

Say on Women's Health

It was found that one third of women (31 percent) in India utilized the full ANC, when both husband and wife played equal roles. In Jammu and Kashmir, it was found that 41 percent of pregnant women availed full ANC, when their decision was taken by someone other than their husband or by themselves. This clearly reflects the fact that women in Jammu and Kashmir cannot make their own decisions about their health. Furthermore, it was found that in Tamil Nadu, 70 percent of the pregnant women received treatment on their own, without any consent from their husbands or others. It was also found at the national and state levels that the perception of women's health has changed to the point that husbands or others can make decisions about their health.

Household Wealth Index

From the NFHS data, it was found that among the poorer section of the society, full ANC services were found to be low, while among the richer section, it was higher, so a positive type of relationship was seen between the wealth index and full ANC. In Tamil Nadu, the lowest disparity was found among the different poor and rich sections, and the highest disparity was found in Madhya Pradesh. The richest section of India has 42 percent of women who receive full ANC services, while the poorest section has only 19 percent, a 23 percent point disparity. From 2005–2020, an increasing trend was found among all sections of the population in full ANC.

2.3 Conclusion

Since, 2005 when NHM was launched in India, a substantial improvement has been noticed in terms of ANC visits in India. In case of ANC visit during the first trimester, a drastic increase has been witnessed in Madhya Pradesh, followed by West Bengal and Jammu and Kashmir after the introduction of NRHM program, while Tamil has already achieved the targets of full of antenatal care before it.

However, while increasing number of ANC visits is generally associated with increasing utilization of full range of ANC services, but the magnitude of improvement in full ANC coverage show only marginal improvements for more than 10 ANC visits. Further higher number of ANC visits in J&K is not resulting in improving full range of ANC services. One reason for this is that in J&K very few women receive IFA during pregnancy. There is a need to see whether, there are supply issues with IFA or our health workers at the various health facilities do not provide IFA to pregnant women.

CHAPTER 3

PREGNANCY COMPLICATIONS

3.0 Pregnancy Complication

For a pregnant woman, the first and second trimesters are very crucial because sometimes there may be the possibility of facing different types of health complications that include urinary tract infection, hypertension, gestational diabetes, obesity and weight gain, and mental stress. The chance of vaginal bleeding, convulsions, prolonged labor, high blood pressure, gestational diabetes are higher during pregnancy. Further there are also chances of miscarriage, preterm labor, iron deficiency anemia, and brain hemorrhage. A health provider is supposed to provide information to pregnant women during ANC visits about these delivery complications and also advise them to take necessary precautions and also provide them information about the place where they can go in case they experience any of these complications

In India, more than half of the pregnant women have pregnancy complications during their pregnancy. Pregnancy complications in women are associated with her socioeconomic characteristics.. In this section, we try to examine to what extent the pregnant women during ANC visits have been provided any information about selected pregnancy in the selected states and also try to know whether increasing number of ANC visits have resulted in imparting information about these pregnancy complications.

3.1 Received Information about Pregnancy Complication

Table 4 presents information about women who have received information about pregnancy complications for the country as a whole and for selected States. This information reveals that between 2005 and 2020, an increasing trend was witnessed in the dissemination of information about pregnancy complications in India and in the selected states. In 2005, only one quarter of pregnant women were provided information about pregnancy complications, which increased to 83 percent by 2019-21. In 2020, among the selected states, the highest information was received by women from Tamil Nadu (95 percent), followed by Jammu and Kashmir (91 percent), Madhya Pradesh (90 percent), Gujarat (89 percent, and West Bengal (86 percent). Jammu and Kashmir has witnessed the highest increase in receiving information about pregnancy complications, and the lowest increase was seen in Tamil Nadu.

3.1.1 Vaginal Bleeding

NFHS has collected data regarding the information provided to women during ANC visits about various pregnancy related complications like vaginal bleeding, convulsions, prolonged labour, abdominal pain and high blood pressure. The percentage of women receiving this information during various rounds of NFHS is presented in Table 4. During the first trimester of pregnancy, vaginal bleeding is a common complication, often considered a sign of a problem in pregnancy. This type of bleeding has been related to preterm birth, low birth weight, and small-for-gestational-age infants. Information presented in Table 4 shows that only 17 percent of women in India were provided information about vaginal bleeding in 2005-06 and this percentage has increased to 62 percent in 2019-21. J&K had the lowest proportion (12%) of women having received information about vaginal bleeding in 2005-06 but in 2019-21, it had the highest percentage (76%) of women having received information on this complication. West Bengal has seen a slight decline on this aspect from 63 percent in 2015-16 to 60 percent in 2019-21. Around three fourth of women in the States of Tamil Nadu, MP and Gujarat have also received the information about vaginal bleeding.

3.1.2 Convulsion

The data revealed that information provided about convulsions has drastically increased in India from 15 percent in 2005-06 to 62 percent in 2019-21. Almost 70 percent of women in J&K, TN, Gujarat and MP have received information about convulsions in 2019-21. The lowest percentage of 56 percent has been reported in West Bengal. Jammu and Kashmir once again has witnessed a highest increase in informing women about convulsions between 2005-06 and 2019-21. The lowest proportion of women provided information about convulsions was seen in West Bengal, with only 56 percent.

3.1.3 Prolonged Labour

Prolonged labor in pregnant women has had a negative impact on both the mother and the fetus. The incidence of life-threatening illness among the mothers increased, and a lack of oxygen among the fetus increases the risk of their death due to prolonged labor. The results show that the percentage of women who were provided information about prolonged labour in India has increased from 20 percent in 2005-06 to 67% in 2019-21. Although TN has the highest proportion of women who were provided information about prolonged labour in 2019-21 followed by Gujarat and MP, but J&K has registered the highest improvement in this indicator from 13 percent in 2005-06 to 76 percent in

2019-21. West Bengal has not experienced much change in providing information about prolonged labour between NFHS-3 and NFHS-5.

3.1.3 Abdominal Pain

The proportion of women in the country provided information about abdominal pain has increased from 52 percent in 2015-16 to 68 percent in 2019-21. Almost three-fourth of women in all the States except WB have received information about abdominal pain. The proportion of women who have received information on prolonged labour has increased by almost 20 percentage points but in WB, it has declined by 3 percentage points between NDHS-4 and NFHS-5.

3.1.4 High Blood Pressure

Gestational hypertension, formerly known as pregnancy-induced hypertension or PIH, is the new onset of hypertension after 20 weeks of gestation. Among the pregnancy complication hypertension is the one. It was found that in 2019-21, 69 percent of pregnant in India were provided information about high blood pressure during pregnancy during any of the ANC visits up from 52 percent during 2015-16. In almost every state except West Bengal, about 80 percent of women have received information about high blood pressure. J&K, MP and Gujarat have registered significant increase on this account between 2015-16 and 2019-21. But in TN, it has only changed from 74 percent in 2015-16 to 79 percent in 2019-21.

3.1.5 Where to for pregnancy complication

It was found that 80 percent of Indian pregnant women had received the information during ANC visits as to where to go in case they experience any type of the pregnancy complication. Among the selected states, other than Jammu and Kashmir, in all other states more than 80 percent of pregnant women had received the information the place where they go during any type of pregnancy complication. Although lowest percentage of women in J&K have been provided information about the place of consultation in case of any pregnancy complications, but the State has registered the highest improvement between 2005-06 and 2019-21 on this indicator.

3.2 Comprehensive Information about pregnancy complications

There are number of complication during pregnancy for a women and these are warning signs that women encounter during pregnancy, child birth and post-partum period. The most common complications during pregnancy that can increase the risk of maternal deaths are: vaginal bleeding,

convulsions or fits, high fever, abdominal pain, severe headache, blurred vision, absence of foetal movements, gush of fluid from vagina, foul smelling vaginal discharge. In the above paragraphs we have discussed information given to women regarding various pregnancy complications one by one. But health professionals are supposed to provide comprehensive information i.e information about all the above pregnancy complications during ANC visits. So the below paragraphs have tried to analyse the trends in comprehensive information about pregnancy complications given to women in India and selected States. Overall, one third of women in India have been provided full range of information about pregnancy complications in 2015-16 and this proportion has increased to 54 percent in 2019-21. Except, West Bengal, all other selected States have experienced an increasing trend in getting comprehensive information about pregnancy complications. The highest increase has been witnessed by J&K (35 percentage points) followed by Gujarat (31 percentage points) and MP (26%).

3.3 Differentials in Comprehensive Information About Pregnancy Complication

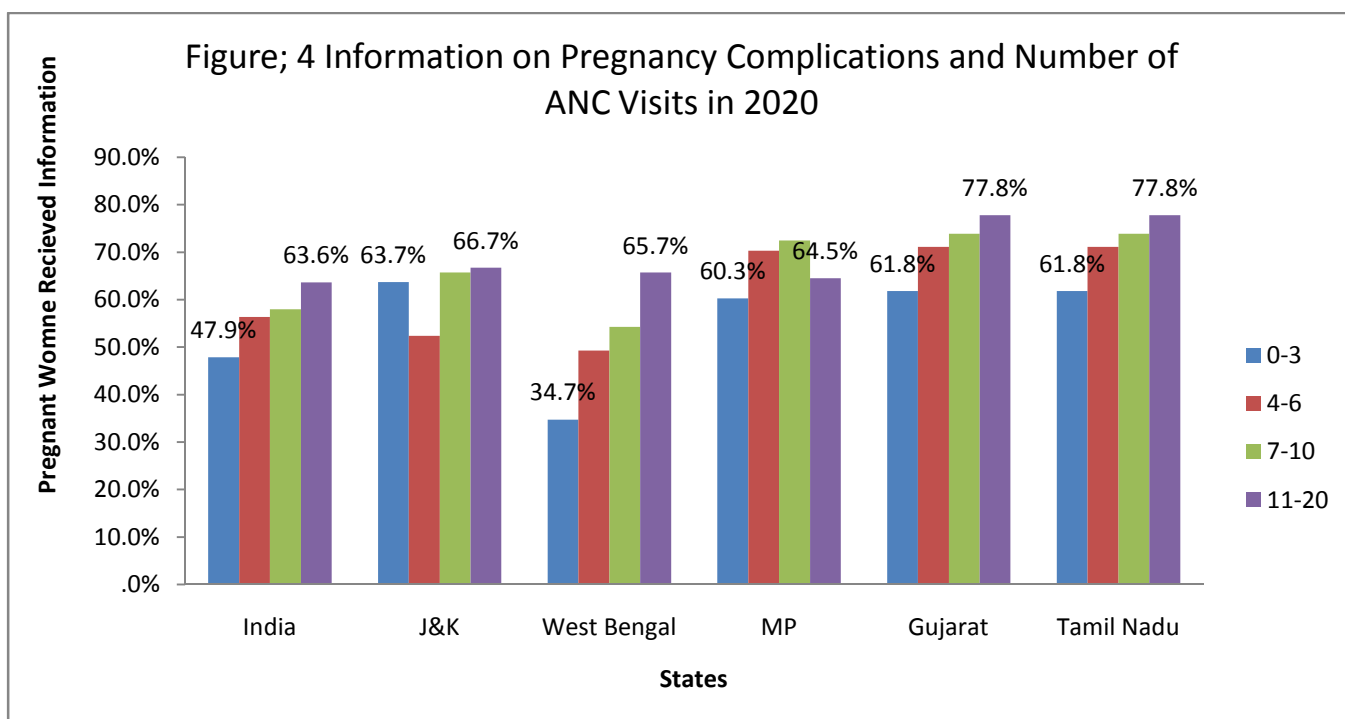
The dissemination of information is directly associated with the different background characteristics of a women that include her; age, education, occupation, religion, region etc (Table: 5).

Number of ANC Visits

From Table 5, it was found that, at the national level, information among pregnant ladies regarding different types of pregnancy complications increases with the increase in the number of ANC visits. Among women who had less than 4 ANC visits during 2015-16, 24% had received full information about pregnancy complications and this percentage increased to 39 percent for women with 7-10 visits and 44 percent for those with 11-20 visits. Forty eight percent of women who had visited less than four times for ANC during 2020, had been provided comprehensive information about pregnancy complications and this percentage 58 percent for women with 7-10 ANC visits. There was further an increase of 5 percentage points for women who had 11-20 ANC visits. Thus, with an increase in ANC visits from less than 4 to 7-10 visits, the gain was 10 percentage points but from 7-10 visits to 11-20 visits resulted in a gain of only 5 percentage points in the country as a whole.

If we look at the figures for J&K, there is not much gain the percentage of women getting comprehensive information about pregnancy complication does not change much between women with 4-6 ANC visits, 7-10 visits and 11-20 visits. For example 22 percent of women in 2015-16 with less than 4 visits received information on pregnancy complications as compared to 27 percent for women with 4-6 visits and 30 percent for women with 11-20 visits. Similarly during 2019-21, the

difference in receiving full information about pregnancy complications between women with less than 4 ANC visits and women with 11-20 visits is only 4 percentage points. Thus it appears that while increasing number of ANC visits helps in the country in getting information about various pregnancy complications but this is not the case. In J&K more and more women pay 11-20 ANC visits but that does not help them to receive comprehensive information about pregnancy complications. The increase in the number of ANC visits beyond seven has not impacted the health of pregnant women in Jammu and Kashmir. In other states, like West Bengal, Gujarat, Madhya Pradesh, and Tamil Nadu, information regarding pregnancy complications among pregnant women was more readily available with the increase in ANC visits (Table: 5).



Age of the Women

In 2020, it was found that at the all India level, the older age groups of pregnant women received more information about different pregnancy complications. With the increase in age, information about pregnancy complications among women increases. Again, in Jammu and Kashmir, the impact of pregnant women seeking information on pregnancy complications was negligible. From 2015 to 2020, an improvement was seen regarding the dissemination of pregnancy complication information among pregnant women. In the age group of 15–19 years old, three-fourth of the (75 percent) pregnant women in Tamil Nadu availed of the information on pregnancy complications, while in Gujarat and Madhya Pradesh, the majority of the respondents in the age group of 40–49 also availed of this information (Table: 5).

Place of Residence

In India, pregnant women in urban areas have more information with 56 percent in 2020, while in rural areas it is 53 percent. Among the selected states, it was found that the highest rural-urban inequality was reported in Jammu and Kashmir with an 11 percent point difference, followed by Gujarat (8 percent points), and the lowest was found in Tamil Nadu (2 percent points) (Table: 5). The information availability of pregnancy complications is greater for regular residents than for visitors at the national level. In the case of Jammu and Kashmir, Madhya Pradesh and Gujarat's usual residents have more information than the visitor during 2020, while in West Bengal and Tamil Nadu the reverse is true.

Education

A higher educational stand of the pregnant women can help them receive more information about their health. It was found that, due to the increase in the educational standard of the pregnant women, there was not a significant increase in the accessibility of information about pregnancy complications among the illiterate and literate women. In 2020, it was found that except in Madhya Pradesh, and Gujarat, in all other states, there was only a 5 percent point difference between illiterate and educated women in cases of pregnancy complications (Table: 5).

Religions and Castes

Among the different religions, it was seen that the Sikh community in India has good knowledge about different pregnancy complications. In the case of religion, it was found that in 2020, there will be an average range of difference among different selected states of 20 percent points. In Jammu and Kashmir, the lowest difference was found among the different religions at only five percent of a point, while in Madhya Pradesh the highest difference was found at 38 percent of a point (Table: 5).

On average, there is a 13 percent point disparity among the different types of social groups in terms of information dissemination about the various types of pregnancy complications. Jammu and Kashmir has the lowest disparity, while the highest disparity was seen in West Bengal and Gujarat.

Number of Children

From the data, an inverse trend was seen between the number of children and information on pregnancy complications, both at the state level and at the national level. As the number of children of the women increases, her information regarding the pregnancy complications decreases. It was

further found that the highest information about pregnancy complications was disseminated at the first birth and the least information was found when the number of children was three or more.

Final Say on Women's Health

It was found that maximum information regarding the pregnancy complications were received by those either who can care for their health by themselves and by those, when both the husband and wife has the final say on their health. In Gujarat and Tamil Nadu, both either by women individually or by both life partners have more role in receiving the knowledge about the pregnancy complication.

Household Wealth Index

There is a positive relationship between the pregnancy complication information and the household wealth index. Among the poor section, both at the national and selected state level, information about pregnancy complications increases with the increase in the wealth index. In India as a whole, half of the poorest sections have information about pregnancy complications, which increased to 59 percent among the richest sections in 2020. At the all-India level, there is a nine percent point difference between the poorest and richest sections, while among the selected states, West Bengal has the highest difference of 18 percent points and the lowest is found in Gujarat with only two percent points.

3.4 Conclusion

In short, it was found that at the all-India level, 83 percent of the pregnant women had received information about pregnancy-related complications. Furthermore, it was found both at the national level and in selected states that with the increase in the number of ANC visits, the increase in the educational standard of women, and the increasing economic status of women, they received more information about pregnancy complications. Also, pregnant women in the younger age group and those who had their first birth received more information than those in the older age group. However, so far as J&K is concerned, majority of the women are not provided full information about pregnancy complications even after interacting with health professionals for more than 11 times during pregnancy. This is a serious issue and there is a need to find out the reasons for poor quality of pregnancy related information and address it at the earliest.

CHAPTER-4

SERVICES RECEIVED DURING PREGNANCY

4.1 Selected Services Utilized During ANC

From Table: 3, it was found that measuring weight was a good practice among the women in India. In 2020 alone, 97 percent of women in India measured their weight during pregnancy. From 1998 to 2020, all selected states witnessed an increasing trend in weight measurement during pregnancy. In Jammu and Kashmir, before the implementation of the NHM program, only one fourth of pregnant women had measured their weight; after that, a random jump was found from 26 percent to 98 percent. High blood pressure sometimes does not make you feel unwell, but it can become serious during pregnancy. As a result, blood pressure monitoring is required during pregnancy. It was found that in 2020, at the national level, 96 percent of the pregnant women had checked their blood pressure, and over a period of time (1998-2020), it became a routine exercise both at the state and national level. In selected states, it was found that after the launch of NHM in India, a significant change was found in Madhya Pradesh, with an 80 percent change from 2005 to 2020, and the least change was seen in Tamil Nadu, with a change of only three percent points.

Pregnant women should have routine urine tests and the urine is tested for proteins, sugar and bacteria. Routine testing for bacteria is also referred to as bacteriuria screening. It was that in West Bengal, Madhya Pradesh and Gujarat, before the launch of NHM, urine examination was low, after that it increases and reach more than 90 percent. In case of blood examination same trend has been in the selected states. In 2020, in all the selected states, more than 90 percent pregnant women conducted the blood examination.

4.1.1 Weight Measurement during Pregnancy

It is the responsibility of every health care provider to determine the body mass index of the pregnant women at the initial during her pregnancy. There are number of benefits of measuring the weight of the pregnant women. From Table 3 it was found that in India during 2020, 97 percent pregnant women had measured their body mass index with all most same in all the selected states. It is very interesting finding that in Tamil Nadu, 97 percent of the pregnant had measured their weight, which increased to 99 percent in 2020, while in Jammu and Kashmir only 22 percent had measured the weight during 1998, which increased to 98 percent in 2020. Over the period of 25

years, Jammu and Kashmir had witnessed highest increase in weight measurement of the pregnant women.

4.1.2 Blood pressure measurement during Pregnancy

Further from the data it was found that in India 96 percent of the pregnant women had taken the blood pressure during their pregnancy. In case of Madhya Pradesh after the launch of NHM in 2005, 100 percent increase has been found.

4.1.3 Urine and Blood Sample Taken during Pregnancy

In India it was found that 94 percent of the pregnant women taken their urine and blood sample for investigation in 2020 during the pregnancy. In Jammu and Kashmir, and Tamil Nadu, 99 percent of the pregnant women availing the services of urine and blood investigation. It was also found that West Bengal and Madhya Pradesh showed a drastic increase in urine and blood investigations during the pregnancy.

4.1.4 Abdomen Checked

It was also found that 93 percent of the pregnant women in India availed the abdominal checkup in 2020, while 75 percent availed in 1998. It was found from the analysis that practice of abdominal checkup during pregnancy was already at good pace in India. It was seen that except West Bengal and Madhya Pradesh other states are performing better than national average.

4.2 Comprehensive Diagnostic Services

In the above paragraphs we have discussed the information about various diagnostics services i.e weight, blood pressure, urine investigation, blood investigation and abdominal examine provided to women during ANC check up one by one. But a pregnant woman is supposed to receive all these services during ANC visits. If a woman has received all these services during ANC check up, she is considered to have received comprehensive diagnostic services during ANC. The below paragraphs have tried to analyse the trends in comprehensive diagnostic services received by women during pregnancy in India and selected States. Overall, 37 percent of women who had an ANC check up in 198-99 had received comprehensive diagnostic services in the country. This percentage increased to 77 percent in 2015-16 and further to 88 percent in 2019-21. Thus after the implementation of National Health Mission in the country, there was a quantum jump in the percentage of women receiving full range of diagnostic services. Although women in all the States seem to have benefitted after the implementation of NRHM, but J&K and MP seems to have benefitted the most. Less than

20 percent of women in J&K and MP used to get full range of diagnostic services in 1998-99 but this percentage has sharply increased to more than 90 percent in both these States in 2019-21.

4.3 Differential in Utilization of Comprehensive Diagnostic Services

Number of ANC Visits

In India, it was found that the number of selected diagnostic services increases with an increase in the number of ANC visits. It was found that 97 percent of the pregnant women in India who had 11-20 ANC visits were provided full range of diagnostic services in 2019-21, while as the corresponding percentages for women with 4-6 and 7-10 visits was 91 percent and 96 percent respectively. The position is somewhat similar in 2015-16. However, during 1998-99 and 2005-06, increasing number of ANC visits have resulted in improved provision of diagnostic services. But after the implementation of NHM, almost all compulsory investigations are performed with the first four ANC visits, as more than 91 percent of women with 4-6 ANC visits during 2015-16 and 2019-21 have received comprehensive diagnostics services.

Before NHM, very few women in J&K used to receive full range of diagnostic services even after visiting health facilities for more than 11 times. For example in 1998-99 only 18 percent received all diagnostic services but this percentage increased to 94 percent in 2019-21. However, before NRHM, increasing number of ANC was associated with increasing utilization of full range of diagnostic services but after 2015-16, there is not any substantial gain in full diagnostic services with increasing number of ANC services. For example, the 81 percent of women with 4-6 visits during 2015-16 have been provided all diagnostic services and this percentage marginally increases to 88 for women with 7-10 and 11-20 visits. In all the selected states of India, the majority of the pregnant women (more than 85 percent) availed themselves of all the diagnostic services during their first three visits. Similarly, during 2019-21, the percentage of women utilizing full range of diagnostic services varies marginally from 91 percent for women with 4-6 visits to 96 percent with 11-20 visits. In other States also, the significant differences are between women with 1-3 visits and 4-6 visits only and no significant improvement for women having more than 7 ANC visits.

Age of the women

According to Table 3, pregnant women between the ages of 20 and 29 in India received the most diagnostic services, while those between the ages of 40 and 49 received the least. From 1998 to 2020, an impressive increase was found in selected diagnostic services among all age groups.

Further, it was found from the analysis that, though all the selected states received the selected diagnostic services, Jammu and Kashmir is lagging behind other states.

Place of Residence

It was found both at the national and at the selected state level that on the basis of rural versus urban, there is not any significant difference in the utilization of selected diagnostic services. In 2020, at the national level, there was a 7 percent point difference between urban and rural. Among the selected states, in Madhya Pradesh and Tamil Nadu, there was zero difference, while in Gujarat, there was a five-point difference; Jammu and Kashmir has a three-point difference in the selected diagnostic service utilization in 2020.

It was also found that the visitors in the selected states received more specialized diagnostic services than the usual residents. Among the selected states, it was found that in 2020, Jammu and Kashmir had the greatest disparity between regular residents and visitors, while Tamil Nadu had the smallest.

Education

It was found that there was a positive relationship between the number of years of schooling and the use of specific diagnostic services among the pregnant women in India. From the data analysis, it was found that pregnant women with an education level of 10th and above received the highest level of diagnostic services, while illiterate women received the lowest level of services. In 2020, at the all India level, there was a 16 percent point difference in the utilization of selected diagnostics between illiterate and higher educational groups of pregnant women. In the selected states of India, Madhya Pradesh and West Bengal have higher disparities in the utilisation of selected diagnostic services during pregnancy. Furthermore, except for the state of Tamil Nadu, it was found both at the national level and among the selected states that after the launch of the NHM programme in India (2005), a drastic increase had been noticed in the utilization of selected diagnostic services.

Religion

Among the different religions, it was found that at the national level, the maximum utilization of selected diagnostics was received by the Sikhs, followed by Christians and Hindus, except in 2020. In 2020, it was found that 95 percent of Christians in India received the selected diagnostic services, followed by 88 percent of Hindus, 87 percent of Sikhs, and 87 percent of Muslims. From 2005 on, it was found that the disparity in availing of different diagnostic services among different religions has declined over the period. In Jammu and Kashmir, Muslims availed the fewest diagnostic services as

compared to all other religions, and Christians availed the highest services. Muslims have used diagnostic services more than any other religion in Madhya Pradesh and Gujarat. It was also found that over the period of 25 years, a declining trend was found in the disparity of utilization of selected diagnostic services.

Caste

It was found that among the different social groups of the population, in 2020, there was not any wide gap in utilization of selected diagnostic services among the different castes. From 2005, again gap among the different castes had declined. In all the selected states, Scheduled tribes were found more deprived than other castes, in availing the different services. In Tamil Nadu, least disparity was found there.

Number of Children Ever Born

According to the data, there was a slight decrease in selected diagnostic services, with the increase in the number of births among women. Women received the most diagnostic services during their first birth, but this decreased as the number of births increased to three or more. At the all India level, in 2020, an eight percent point difference was seen in the utilization of selected diagnostic services from the first birth and more than three births. It was discovered that in 2020, Jammu and Kashmir and Madhya Pradesh had the highest difference of five percent points each, followed by West Bengal, and Tamil Nadu had the smallest difference.

Working Status

According to data, it was found that In India, working pregnant women availed the more diagnostic services than the non-working women. The gap between the utilization of selected diagnostic services had declined from 2005 to 2020, in between working and non-working women. In West Bengal and Jammu and Kashmir, only three percent points and two percent point difference was seen in achieving the different diagnostic services between working and the non-working women, while in Tamil Nadu, Gujarat and Madhya Pradesh there is no disparity.

Final say on Women's Health Care

It was seen from the data that there is not a huge difference in availing the services of selected diagnostics on the basis of final say on the women's' health care. From the data, it was found that maximum number selected services were received by those pregnant women who have the consent from her husband also. In Jammu and Kashmir it was found that maximum pregnant women availed

selected diagnostic services by those who have final say on their health care by some else, other than by her own or by her husband. In other states, there was not the big difference in utilizing the selected diagnostic services.

Wealth Index

The different diagnostic services had witnessed the positive relationship with increases in household wealth index quintiles. Among the poorest section of the households in 2020, 78 percent of pregnant women availed selected diagnostic services, while among the richest section, 98 percent availed the same service. Over time, the disparity in utilization of selected diagnostic services among different wealth groups has narrowed. At the all India level, there was a difference of 17 percent points in the utilization of selected diagnostic services, while among the states, the highest gap was found in Madhya Pradesh (10 percent points), followed by West Bengal (8 percent points), and Jammu and Kashmir (7 percent points). The least difference was found in the state of Tamil Nadu.

4.4 Conclusion

In its concluding remarks, it was found that more than 90 percent of the pregnant women in received the selected services both at the all India level and also in the selected states. Furthermore, it was found that an increasing trend was found in the utilization of selected services from 1992-2020. After 2005, Jammu and Kashmir has witnessed a drastic increase in availing these services. Again it was found that majority of pregnant women availed these selected services in the first three ANC visits and beyond three ANC there was not any significant increase in utilization of these services. In other States also most of the diagnostic services are provided within the first 4 ANC visits and after more than 4 ANC visits, diagnostic services remain unchanged irrespective of number of ANC services.

CHAPTER 5

INFORMATION ON DELIVERY CARE/POSTNATAL CARE SERVICES

WHO, recommended high quality care in health facilities for all women and babies for at least 24 hours after birth, with a minimum of three additional postnatal checkups in the first six weeks. Table 8 shows the information on the different delivery and postnatal care services that includes delivery care, cord care, breast feeding, keeping baby warm and information of family planning.

5.1.1 Delivery Care among Pregnant Women

From Table 8, it was found that in 2005, 53 percent of the pregnant women received the information delivery care, which increased to 89 percent in 2020. Among the selected states, during the period of 15 years, highest increase was seen in Madhya Pradesh (56 percent points), followed by Jammu and Kashmir (45 percent points), West Bengal (32 percent points), while as Tamil Nadu had only five percent point difference in receiving the information on delivery care from 2005 to 2020.

5.1.2 Cord Care information among pregnant women

Table 8 also shows the data on information about cord care for newborns. It was found that, at the national level in India, 85 percent of the pregnant women have information about cord care. Among the selected states, pregnant women in Tamil Nadu have the highest level of information (95 percent), followed by Gujarat (93 percent), and West Bengal (48 percent).

5.1.3 Breast Feeding, Keeping baby warm, and family planning

In India, 90 percent of the pregnant women have the information about the breast feeding. Among the states, it was found that all the selected have breastfeeding information among the 90 percent pregnant women. Furthermore it was found that 87 percent of the pregnant have the information on how to keep baby warm. Also 84 percent of pregnant women have the information regarding family planning.

5.2 Comprehensive information received about Natal/Post Natal Services

In the above paragraphs we have discussed the information about various natal and post natal issues i.e delivery care, cord care, breast feeding, keeping baby warm and information about family planning one by one. But a pregnant woman is supposed to receive information about all these aspects during ANC visits. If a woman has received information about all these 5 aspects during any

of the ANC check up, she is considered to have received comprehensive information about diagnostic services during ANC. The below paragraphs have tried to analyse the trends in comprehensive diagnostic services received by women during pregnancy in India and selected States. Overall, 32 percent of women who had an ANC check up in 2015-16 had received comprehensive diagnostic services in the country. This percentage increased to 52 percent in 2019-21. Thus there is an increase of 20 percentage points in providing comprehensive information about natal and post natal care services in the country. Around 22 percent of women in J&K had received such information in 2015-16 and this percentage increased to 46 percent. Comprehensive information given on natal and post natal care is the highest in Tamil Nadu where 81 percent of women had received information during 2019-21, followed by MP (68 percent), WB (63 percent) and Gujarat (60 percent). Before launch of NHM, this information was either not given to women as part of ANC care or very few women used to receive it. However, after the launch of NHM, it was made mandatory to give information about natal, delivery care and post natal care. But it appears that among various States under study, J&K is still lagging behind in providing comprehensive information about these aspects.

5.3 Differentials in Information Received about Delivery Care

Number of ANC Visits

It was found that information on delivery and postnatal care increases with the increase in the number of ANC visits in India. The percentage of women in 2015-16 receiving full information on delivery related care was 24 percent for women having 1-3 visits and it increased to 35 percent for those with 4-6 and 7-10 visits and increases to 40 percent for women with 11-20 visits. Similarly, in 2019-21, 45 percent of women with 1-3 visits had received comprehensive information about delivery care and increased by 10 percentage points for women with 4-6 and 7-10 visits. However, after 10 visits not much improvement is observed as only 60 percent of women with more than 10 visits have received full information. In other words, 40 percent of the women even having more than 10 visits have not received information in all the 5 components considered here.

Increasing number of ANC visits in J&K do not result in enhancing comprehensive knowledge about natal and delivery care components as there is hardly 3 percentage points difference between women who have 1-3 ANVC visits and women having more than 10 ANC visits. Almost half of the women in 2019-21 have not received information about all the five components despite having more than 10 ANC visits. These types of results raise some questions about the quality of ANC care. In WB,

increasing number of ANC visits have resulted in improving comprehensive information about natal/delivery care both in 2015-16 and 2019-21 but in MP and Tamil Nadu, increasing number of ANC visits have resulted in mixed results and beyond 4-6 visits not much improvement can be observed. In Gujarat increasing number of ANC visits have improved delivery care information upto 7-10 visits but increasing number of visits beyond 10 visits have resulted in declining quality of care in both 2015-16 and 2019-21.

Age of the Women

From the data it was found that in all age groups the women received the same information on delivery care with the average of 48 percent. From the selected states it was seen that Jammu and Kashmir, had not witnessed in difference among different age group in availing the information about delivery/postnatal care. In the case of West Bengal and Gujarat, there was a difference of 20 percent points between the lower and higher age group in availing the information.

Place of Residence

In the case of urban-rural India, it was found that urban residents received less information about delivery care than rural residents. In West Bengal and Gujarat, there was a difference of 15 percent points and 17 percent points, respectively, in accessing the information on delivery care. Furthermore, it was found that the usual residents, both at the all-India level and at the state level, received more information than the visitors.

Education of Women

From the data analysis, it was shown that there was not any remarkable impact of increase of educational level on availing the information of delivery care. In India, it was found that women with an educational level between 5 and 10 years of schooling obtained more information about delivery care than those whose education level was 10 or above. Among the selected states, it was found in 2020 that pregnant women with higher educational levels had less access to information about the delivery care.

Religion of Women

Among the different religions in India, it was found that Hindu pregnant women have the highest level of information about delivery care, followed by Christian, Muslim, and Sikh women. In the selected states, it was found that there is not a big gap among the different religions.

Cast of Women

It was found that in case of pregnant women with general category had less information about delivery care than scheduled castes and scheduled tribes. In 2020, only 46 percent pregnant of general category had the information about the delivery care, while in case of scheduled castes and scheduled tribes it was 54 percent to each category. Among the selected states, it was found that in Tamil Nadu, a difference of 20 percent points was found in delivery care information between scheduled tribes and general population and the least gap of availing the information among the social groups was found in Madhya Pradesh.

Number of Children Ever Born

It was found from the Table 8 that information of delivery care/postnatal care is not significantly affected with increasing number of births. Both at the national and state level, it was seen that on an average there was a difference of only 5 percent points in availing the information of delivery from first birth to three or more births. At the time of first birth higher increase of information was availed than the second or third birth.

Working Status

It was found that 54 percent of the pregnant women in India, who are currently working have the information on delivery care, while as 51 percent are not currently working. Again there was not any significant difference in between workers and non-workers in availing the information on delivery care.

Wealth Index

In case of wealth index, it was again found that in India, pregnant fall in the group of middle wealth index had the highest information about the delivery care or postnatal care. It was further found that richest household had less information than poorer.

5.4 Conclusion

Overall, 32 percent of women who had an ANC check up in 2015-16 had received comprehensive diagnostic services in the country. This percentage increased to 52 percent in 2019-21. Thus there is an increase of 20 percentage points in providing comprehensive information about natal and post natal care services in the country. Around 22 percent of women in J&K had received such information in 2015-16 and this percentage increased to 46 percent. Thus it appears that among

various States under study, J&K is still lagging behind in providing comprehensive information about these aspects.

It was found that information on delivery and postnatal care has increased with an increase in the number of ANC visits in India. But still 40 percent of the women even having more than 10 visits have not received information in all the 5 components considered here. Increasing number of ANC visits in J&K do not result in enhancing comprehensive knowledge about natal and delivery care components as there is hardly 3 percentage points difference between women who have 1-3 ANVC visits and women having more than 10 ANC visits. Almost half of the women in 2019-21 have not received information about all the five components despite having more than 10 ANC visits. These types of results raise some questions about the quality of ANC care.

In WB, increasing number of ANC visits have resulted in improving comprehensive information about natal/delivery care both in 2015-16 and 2019-21 but in MP and Tamil Nadu, increasing number of ANC visits have resulted in mixed results as beyond 4-6 visits not much improvement is observed. In Gujarat increasing number of ANC visits have improved delivery care information upto 7-10 visits but increasing number of visits beyond 10 visits have resulted in declining quality of care in both 2015-16 and 2019-21. Thus it can be concluded that much of the information related to delivery care, cord care, breast feeding, keeping baby warm and family planning is generally given in the first four ANC visits and 40-60 percent are given information on these aspects and beyond 6 visits, this aspect of ANC care is generally not given much importance . Consequently almost half of women do not get comprehensive information about child care and family planning.

CHAPTER 6

CONCLUSION

The World Health Organisation (WHO) envisions a world in which every pregnant woman and newborn child receives quality ANC care throughout the pregnancy, childbirth, and postnatal period. ANC provides a platform for important health care functions, including health promotion, screening, diagnosis, and disease prevention during the pregnancy. The present study is based on secondary sources of data, and the data set has been carved out from various rounds of the NFHS. In this study, the performance of different components of the quality of ANC care has been evaluated, which include: full ANC, information received on different pregnancy complications, different selected services received during pregnancy, and information received on delivery and postnatal care. Furthermore, five Indian states had been selected on the basis of higher and lower performance in the healthcare system. A variation has been found in the utilization of quality ANC care on the basis of different socio-economic characteristics of pregnant women and also the variation is also found at the state level. It was found that some states were performing better than the national average and some were below the national average. In the case of full ANC services, in India, 31 percent of pregnant women are availing of it in 2019–20, and among the selected states, Tamil Nadu is performing at the top, while Jammu and Kashmir was availing the least of full ANC services, though the number of ANC visits is very high. In Jammu and Kashmir, 81 percent of the pregnant women had completed at least four ANC visits, which is second after Tamil Nadu, but only 23 percent had availed of full ANC services. In the case of Muslims and scheduled castes, full utilisation of ANC services was found to be lower than for other religious and social groups in India. With the increase in the educational standard of pregnant women availing of more full ANC services, women with more than two births availed of fewer full ANC services than with their first birth.

In the case of pregnant women who received information on different pregnancy complications in India and also in the selected states, it was found that 83 percent of the women received information on pregnancy complications in India. It is also found that in Tamil Nadu, 84 percent of women received this information in 2005-06, while in Jammu and Kashmir, only 31 percent of pregnant women received this information in 2005-06. So, there was only a three percent increase in Tamil Nadu after the launch of the NHM programme, while in Jammu and Kashmir, a 100 percent increase has been recorded. Among the different pregnancy complications, the highest level of information was about blood pressure and abdominal pain. Furthermore, it was found that in Jammu and

Kashmir, there was no significant increase in the information received on pregnancy complications with the increase in the number of ANC visits, while in all other states, there was a remarkable increase in the information received on these pregnancy complications with the increase in the number of ANC visits and after the introduction of the NRHM programme in India. In India, women with higher age groups and higher education levels received more information about pregnancy complications. Also, poor sections of the women had the least information about the pregnancy complications.

In case of selected services received during pregnancy, that includes weight and blood pressure measurement, urine and blood examination, and an abdomen checkup. At the national level and among the selected services, there was more than 90 percent utilisation of selected services during pregnancy.

It was also found that 90 percent of the women in India had received information on delivery care and breast feeding, and 85 percent had received information about cord care. Again in Jammu and Kashmir, there was not a significant increase in receiving delivery care with the increase in the number of ANC visits; rather, there was a decline in it. It clearly depicts the fact that the increase in the number of ANC visits in Jammu and Kashmir has not increased the quality of ANC services. Furthermore, it was found that an increase in the education status and age of women increased their knowledge about delivery care.

Among the selected states, it was found that the state of Tamil Nadu had achieved the health targets of ANC before the launch of the NRHM programme in India, and there was not any significant increase in the delivery care system after the launch of the NRHM programme. In Jammu and Kashmir, more than 60 percent of the pregnant women completed more than four (04) ANC visits before the launch of the NRHM programme (2005–06), but the increasing number of ANC visits had not increased their quality of ANC services. In Madhya Pradesh, West Bengal, and Gujarat, the NRHM programme has contributed better to the delivery of the health care system.

Overall, 32 percent of women who had an ANC check up in 2015-16 had received comprehensive diagnostic services in the country. This percentage increased to 52 percent in 2019-21. Thus there is an increase of 20 percentage points in providing comprehensive information about natal and post natal care services in the country. Around 22 percent of women in J&K had received such information in 2015-16 and this percentage increased to 46 percent. Thus it appears that among

various States under study, J&K is still lagging behind in providing comprehensive information about these aspects.

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Table 1: Trends in the ANC visits in India and selected States 1992-2-021

	No. of ANC Visits	J&K	HP	PP	HR	Delhi	RJ	UP & UK	Bihar & JK	AS	WB	OR	MP & CG	GJ	MH	AP & TNG	KK	KR	TN	India
1992	0	20.4%	24.1%	12.0%	27.2%	17.2%	68.4%	54.9%	62.7%	50.7%	24.6%	38.6%	47.8%	24.0%	17.5%	13.1%	16.1%	2.7%	5.5%	37.5%
	1-3	44.9%	54.8%	57.1%	50.0%	27.3%	22.6%	35.6%	29.1%	37.8%	50.8%	44.5%	38.7%	38.0%	41.9%	30.4%	25.5%	9.4%	27.2%	35.6%
	4-6	21.6%	16.0%	20.8%	14.2%	29.5%	6.0%	6.9%	5.9%	8.3%	15.4%	12.1%	8.8%	25.8%	24.7%	39.3%	31.7%	22.6%	36.0%	16.2%
	7-10	10.7%	4.6%	7.3%	7.2%	21.9%	2.5%	2.2%	2.1%	2.9%	8.4%	4.1%	4.0%	10.9%	13.4%	14.5%	20.9%	47.9%	23.1%	8.7%
	11+	2.3%	.6%	2.7%	1.4%	4.2%	.5%	.3%	.2%	.5%	.7%	.8%	.6%	1.3%	2.5%	2.7%	5.8%	17.4%	8.2%	2.0%
1998	0	15.7%	13.2%	26.0%	41.9%	14.3%	52.5%	63.9%	62.5%	38.9%	9.5%	20.3%	38.5%	13.6%	9.6%	7.3%	13.7%	.3%	1.2%	34.0%
	1-3	33.6%	51.4%	32.4%	35.8%	31.3%	34.0%	26.9%	27.9%	44.8%	56.4%	55.0%	46.3%	46.1%	49.8%	28.6%	28.4%	4.5%	25.4%	35.7%
	4-6	28.4%	26.9%	25.7%	14.7%	31.5%	8.5%	5.0%	5.7%	10.5%	18.7%	18.1%	10.2%	22.2%	25.7%	35.2%	39.9%	17.3%	41.0%	17.1%
	7-10	17.6%	7.7%	13.4%	6.5%	16.7%	4.0%	2.3%	2.4%	4.4%	14.0%	5.9%	4.3%	15.2%	14.1%	24.0%	17.4%	52.6%	28.2%	10.7%
	11+	4.6%	.7%	2.6%	1.1%	6.2%	1.1%	2.0%	1.4%	1.5%	1.4%	.7%	.7%	2.9%	.7%	4.9%	.7%	25.2%	4.2%	1.7%
2005	0	15.2%	13.6%	11.1%	11.7%	11.2%	25.1%	33.8%	59.9%	29.2%	8.1%	13.1%	18.2%	13.2%	9.1%	5.6%	10.4%	5.1%	1.4%	22.8%
	1-3	24.2%	42.4%	28.6%	46.6%	24.6%	51.4%	54.1%	27.1%	47.2%	52.9%	50.0%	57.9%	36.1%	31.1%	21.2%	21.4%	1.5%	11.2%	39.5%
	4-6	30.4%	28.5%	24.6%	21.3%	29.3%	14.4%	7.7%	8.0%	14.8%	22.9%	25.2%	15.9%	24.2%	34.3%	40.4%	33.2%	9.6%	23.0%	19.0%
	7-10	22.8%	13.9%	25.9%	15.3%	30.0%	8.4%	3.9%	4.8%	8.4%	15.0%	11.3%	7.3%	21.3%	22.6%	29.3%	33.2%	53.0%	48.8%	15.3%
	11+	7.4%	1.6%	9.7%	5.1%	5.0%	.6%	.4%	.2%	.4%	1.1%	.4%	.6%	5.2%	3.0%	3.5%	1.8%	30.9%	15.6%	2.7%
2015	0	9.1%	9.6%	2.9%	17.7%	10.8%	14.5%	23.8%	40.0%	12.2%	9.7%	7.1%	19.0%	14.9%	8.1%	2.2%	12.0%	7.4%	8.6%	16.5%
	1-3	9.6%	21.3%	28.7%	37.2%	21.3%	47.0%	49.6%	42.3%	41.4%	13.9%	31.0%	39.1%	14.6%	19.7%	22.2%	17.8%	2.4%	10.3%	31.5%
	4-6	24.1%	33.5%	39.1%	34.1%	34.7%	27.4%	19.3%	13.3%	39.8%	39.4%	42.7%	30.7%	22.9%	25.1%	40.0%	20.6%	4.5%	16.0%	25.6%
	7-10	31.9%	26.6%	17.4%	8.5%	25.3%	9.8%	5.7%	4.0%	6.2%	25.1%	17.3%	8.8%	30.6%	38.1%	33.1%	42.9%	40.6%	41.6%	19.0%
	11+	25.3%	8.9%	11.9%	2.6%	7.9%	1.3%	1.6%	.4%	.5%	11.9%	1.9%	2.5%	17.0%	8.9%	2.6%	6.6%	45.0%	23.5%	6.6%
2021	0	5.7%	11.8%	8.7%	3.2%	8.6%	5.8%	5.9%	14.8%	5.7%	8.9%	1.7%	5.8%	5.9%	8.4%	.9%	1.7%	11.1%	4.2%	8.1%
	1-3	13.4%	17.6%	31.6%	35.9%	13.6%	38.8%	49.5%	55.2%	43.6%	14.4%	20.1%	35.7%	16.9%	20.2%	29.5%	27.4%	7.5%	5.2%	34.3%
	4-6	14.3%	40.1%	33.0%	41.4%	29.8%	42.0%	36.7%	22.8%	42.6%	41.8%	38.1%	40.5%	24.5%	30.1%	42.6%	33.5%	9.5%	12.0%	33.2%
	7-10	28.2%	26.7%	19.1%	15.5%	33.1%	11.6%	6.8%	6.4%	7.4%	28.0%	32.2%	15.9%	45.3%	33.4%	24.5%	33.4%	44.2%	44.0%	18.9%
	11-20	38.5%	3.8%	7.6%	4.0%	14.8%	1.8%	1.1%	.7%	.8%	6.9%	7.8%	2.1%	7.4%	7.8%	2.5%	4.0%	27.7%	34.6%	5.6%

Table-2 Distribution of women Receiving Various Components of ANC Care 1992-2020							
	Year	J&K	West Bengal	Madhya Pradesh	Gujarat	Tamil Nadu	India
At least one ANC	1992-93	79.6%	75.4%	52.2%	76.0%	94.5%	62.5%
	1998-99	84.3%	90.5%	61.5%	86.4%	98.8%	66.0%
	2005-06	85.3%	92.3%	82.0%	87.4%	98.9%	77.2%
	2015-16	92.4%	91.4%	82.5%	86.1%	92.4%	83.5%
	2019-21	94.7%	91.1%	94.3%	94.1%	95.8%	93.8%
At least 4 ANC Visits	1992-93	34.6%	24.5%	13.4%	38.0%	67.3%	26.9%
	1998-99	49.6%	33.6%	14.7%	39.9%	73.2%	29.6%
	2005-06	60.4%	39.0%	23.8%	50.5%	87.4%	37.0%
	2015-16	81.3%	76.4%	42.0%	70.5%	81.1%	51.2%
	2019-21	81.1%	76.7%	58.5%	77.2%	90.6%	58.5%
ANC in First Trimester	1992-93	31.1%	23.6%	19.5%	32.3%	43.1%	23.9%
	1998-99	47.9%	35.1%	26.1%	35.8%	59.5%	33.0%
	2005-06	54.8%	38.6%	41.0%	55.0%	75.3%	43.9%
	2015-16	76.7%	54.9%	57.8%	73.8%	64.0%	58.6%
	2019-21	86.6%	72.6%	75.9%	79.3%	77.4%	70.0%
2 or more TT	1992-93	69.0%	70.4%	42.8%	62.6%	90.1%	53.7%
	1998-99	77.7%	82.4%	55.0%	72.7%	95.4%	66.8%
	2005-06	81.0%	90.9%	71.6%	80.4%	95.9%	76.3%
	2015-16	81.6%	91.4%	85.0%	81.4%	65.4%	83.0%
	2019-21	84.5%	91.3%	86.5%	81.0%	82.4%	83.1%
IFA	2005-06	67.6%	81.9%	65.8%	82.4%	91.9%	65.1%
	2015-16	74.6%	91.1%	85.3%	75.5%	94.4%	77.7%
	2019-21	72.5%	96.1%	93.5%	89.0%	98.7%	87.6%
100 or more IFA	2005-06	16.2%	14.3%	7.9%	25.3%	28.2%	15.2%
	2015-16	30.2%	28.0%	25.4%	36.8%	64.0%	30.3%
	2019-21	29.8%	62.5%	53.5%	60.0%	82.5%	44.1%
Intestinal Parasite Drug	2005-06	1.6%	4.4%	2.7%	7.1%	6.5%	3.8%
	2015-16	9.5%	18.7%	19.6%	19.1%	46.8%	18.0%
	2019-21	8.8%	25.3%	40.4	41.6%	76.7%	31.1%
Full ANC	2005-06	15.0%	10.5%	6.0%	23.8%	27.8%	15.3%
	2015-16	29.6%	24.1%	17.5%	36.2%	50.1%	25.5%
	2019-21	23.4	48.2	31.5	49	71.3	31.2

Table 3 Trends in the Percentage of Women Received Full ANC Services by Background Characteristics 1998-2020

	INDIA			J&K			WB			MP			Gujarat			Tamil Nadu		
	2005	2015	2020	2005	2015	2020	2005	2015	2020	2005	2015	2020	2005	2015	2020	2005	2015	2020
NO OF ANC visits																		
4-6	23.0%	33.5%	41.0%	17.7%	26.4%	15.1%	21.1%	27.3%	58.0%	13.3%	31.8%	48.9%	30.0%	30.8%	47.1%	20.0%	46.3%	66.6%
7-10	38.7%	46.9%	54.0%	24.3%	39.1%	22.8%	28.9%	28.7%	62.5%	33.4%	40.2%	52.3%	47.6%	46.9%	57.3%	30.9%	54.7%	68.7%
11-20	53.5%	54.7%	58.9%	25.0%	31.7%	31.9%	43.9%	31.9%	71.7%	59.4%	37.2%	52.6%	64.9%	55.3%	68.0%	49.9%	66.5%	76.1%
Age of women																		
15-19	8.8%	22.5%	28.2%	4.6%	26.2%	11.9%	8.4%	21.0%	49.5%	.8%	9.1%	26.9%	5.1%	18.4%	46.6%	9.5%	43.5%	68.2%
20-29	15.8%	25.6%	29.0%	13.0%	28.4%	21.8%	9.8%	21.6%	51.1%	5.8%	14.4%	31.1%	22.9%	30.6%	44.9%	27.3%	46.2%	67.3%
30-39	16.8%	26.1%	31.0%	13.4%	26.1%	22.7%	10.7%	23.0%	52.6%	4.2%	14.8%	31.3%	17.1%	33.3%	45.9%	30.6%	44.7%	67.1%
40-49	7.8%	19.1%	27.3%	8.9%	16.6%	19.4%	.0%	14.8%	54.2%	1.6%	8.3%	29.7%	30.0%	21.6%	45.9%	19.1%	54.4%	74.4%
place of Residence																		
Urban	23.7%	35.0%	38.5%	18.0%	29.6%	27.1%	18.5%	25.2%	54.2%	12.3%	21.8%	36.1%	30.5%	39.7%	49.1%	31.5%	47.0%	69.5%
Rural	11.5%	21.0%	26.1%	11.3%	26.0%	20.5%	7.1%	20.4%	50.1%	2.8%	11.5%	29.5%	14.3%	24.1%	42.6%	24.0%	44.7%	65.5%
Usual resident or visitor																		
Usual Resident	15.1%	25.4%	29.5%	12.4%	26.7%	22.0%	8.5%	21.5%	51.4%	4.9%	14.1%	31.0%	20.1%	30.2%	44.8%	27.6%	45.6%	67.2%
Visitor	17.9%	27.9%	29.5%	16.4%	34.0%	34.0%	22.0%	26.6%	47.7%	5.2%	16.4%	33.5%	28.1%	38.0%	55.0%	24.1%	52.1%	69.4%
Education																		
Illiterate	5.1%	12.3%	17.1%	7.3%	16.7%	16.9%	2.9%	16.6%	37.0%	1.4%	7.5%	23.9%	8.7%	16.2%	38.0%	10.4%	40.3%	73.5%
<5 years	11.1%	18.7%	23.9%	5.0%	16.9%	21.0%	8.1%	19.4%	51.2%	6.4%	11.9%	27.8%	16.3%	24.1%	41.4%	16.6%	37.4%	69.9%
5-9 years	16.2%	23.1%	30.9%	10.8%	28.0%	21.9%	11.5%	20.0%	52.1%	5.2%	13.2%	31.4%	25.0%	31.7%	46.2%	25.8%	43.2%	65.7%
10 & above	32.7%	36.8%	42.0%	29.9%	36.4%	29.7%	29.7%	29.1%	58.2%	22.4%	26.0%	43.2%	36.6%	41.5%	54.6%	41.0%	47.8%	68.9%
Religion																		
Hindu	15.5%	25.6%	30.1%	14.9%	43.8%	32.4%	11.7%	24.3%	52.8%	4.9%	14.0%	30.8%	21.0%	30.1%	44.8%	27.3%	45.6%	67.0%
Muslim	12.8%	22.2%	26.7%	11.4%	20.0%	19.1%	5.6%	17.2%	48.4%	4.4%	15.8%	35.4%	19.4%	35.9%	47.3%	42.2%	49.4%	65.8%
Sikh	16.3%	32.6%	28.4%	42.9%	60.5%		.0%	100.0%	39.5%	5.7%	26.5%	28.2%	.0%	100.0%	68.8%	.0%	.0%	75.1%
Christian	27.6%	39.6%	35.2%	.0%	.0%	15.7%	13.0%	14.1%	69.0%	7.8%	18.7%	52.3%	.0%	43.8%	65.2%	20.0%	45.9%	

Other	12.4%	30.2%	26.9%	.0%	27.1%	7.8%	22.5%	15.5%	63.4%	17.8%	25.8%	32.2%	.0%	69.4%	45.3%	50.0%	.0%	70.6%
Caste																		
SC	9.9%	23.9%	27.3%	6.7%	38.6%	33.1%	7.0%	23.2%	53.4%	3.8%	11.8%	28.3%	21.5%	33.2%	40.6%	15.3%	44.9%	65.5%
ST	7.8%	20.8%	27.4%	8.1%	17.1%	15.7%	8.3%	19.3%	50.1%	2.4%	10.9%	29.5%	12.6%	19.5%	49.9%	19.4%	34.5%	71.5%
OBC	16.1%	25.6%	29.3%	10.0%	35.1%	15.2%	12.6%	24.3%	49.4%	4.1%	15.6%	31.8%	17.7%	29.9%	45.1%	31.4%	46.3%	68.2%
None	19.7%	28.7%	34.3%	15.2%	26.7%	22.7%	10.9%	21.0%	52.2%	12.8%	19.4%	36.0%	26.7%	38.7%	49.2%	58.6%	53.8%	58.0%
No. of Children Ever Born																		
1	21.1%	29.9%	35.4%	22.2%	31.9%	24.0%	15.8%	25.5%	54.2%	8.4%	18.6%	36.9%	28.1%	36.8%	48.0%	33.3%	47.2%	70.3%
2	18.1%	28.3%	30.6%	14.7%	28.4%	22.7%	8.8%	20.9%	50.8%	7.9%	15.2%	30.0%	25.4%	31.1%	45.0%	28.4%	45.3%	65.8%
3 and above	8.3%	16.3%	20.9%	7.1%	20.4%	17.7%	4.6%	14.2%	42.5%	2.1%	9.2%	25.9%	11.9%	22.3%	41.7%	18.2%	43.6%	63.2%
Currently Working																		
No	16.4%	27.8%	29.9%	12.6%	27.5%	19.3%	11.2%	21.9%	51.4%	6.2%	15.8%	32.8%	23.4%	30.4%	46.6%	30.4%	45.1%	68.1%
Yes	12.7%	29.3%	31.3%	13.2%	35.8%	26.4%	5.3%	22.8%	48.0%	3.1%	11.8%	31.9%	16.5%	37.0%	45.8%	21.6%	44.4%	73.3%
Final say on woman's health care																		
Women	14.4%	32.5%	30.3%	15.5%	37.3%	15.3%	10.5%	18.0%	36.6%	6.3%	19.8%	27.9%	20.4%	35.5%	43.3%	23.3%	52.5%	70.8%
Women and Husband	17.8%	28.5%	31.0%	16.2%	30.9%	22.1%	11.4%	22.1%	53.0%	5.5%	15.7%	35.6%	21.7%	35.4%	46.6%	29.4%	43.2%	70.2%
Women with else	84.8%	74.1%																
Husband	15.2%	25.9%	26.3%	11.6%	19.6%	19.2%	8.6%	24.0%	47.1%	3.8%	12.2%	22.7%	19.9%	23.6%	42.1%	29.4%	44.8%	66.1%
Someone else	9.0%	19.0%	32.2%	9.7%	30.8%	41.6%	4.9%	20.2%	77.6%	6.6%	6.2%	28.2%	13.2%	27.4%	63.5%	33.5%	35.3%	39.3%
Others	16.2%	25.2%		.0%	26.6%		8.6%	57.2%		.0%	10.5%		34.5%	36.7%		22.7%	76.7%	
Household wealth index in quintiles																		
Poorest	4.1%	10.5%	18.7%	.0%	11.6%	14.3%	3.7%	17.7%	46.9%	1.7%	7.3%	25.6%	7.0%	11.5%	40.1%	11.5%	37.1%	66.4%
Poorer	6.8%	17.6%	23.9%	5.6%	16.7%	15.4%	4.6%	19.2%	50.5%	3.0%	11.8%	28.0%	7.2%	18.5%	43.5%	18.9%	45.5%	61.2%
Middle	11.8%	25.9%	29.8%	6.5%	22.9%	23.0%	9.5%	23.3%	53.4%	4.0%	15.5%	31.8%	12.2%	27.9%	40.5%	21.9%	43.8%	67.2%
Richer	18.5%	32.4%	35.6%	16.2%	28.3%	25.0%	14.7%	24.6%	58.9%	5.2%	17.3%	33.9%	25.1%	37.3%	47.1%	31.8%	45.4%	68.6%
Richest	33.7%	40.8%	42.2%	24.8%	45.0%	26.6%	36.8%	37.7%	57.4%	25.5%	29.2%	44.8%	35.1%	42.7%	50.8%	46.5%	50.7%	68.9%
Total	11.70%	21.10%	31.2%	12.7%	26.9%	23.4	9.7%	21.8%	48.2	4.9%	14.2%	31.5	20.7%	30.8%	49	27.5%	45.8%	71.3

Table-4 Distribution of Women Receiving Information on specific pregnancy complication						
	J&K	West Bengal	Madhya Pradesh	Gujarat	Tamil Nadu	India
	Received information about pregnancy complications					
2005-06	31.0%	40.8%	35.3%	59.4%	84.4%	36.0%
2015	64.1%	79.0%	67.9%	71.0%	87.5%	64.8%
2020	90.7	86.5	89.4	88.8	95.4	83.2
	Vaginal bleeding					
2005-06	11.7%	14.3%	15.2%	16.0%	28.2%	16.6
2015-16	42.2%	62.6%	52.4%	55.0%	66.8%	46.0
2019-21	76.4	60.5	74	75.7	75.9	62.5
	Convulsion					
2005-06	7.1%	12.1%	14.3%	16.0%	25.7%	15.4
2015-16	40.3%	58.6%	51.0%	51.9%	66.5%	44.0
2019-21	72.1	56	73.8	75.1	71.1	61.9
	Prolonged labor					
2005-06	12.6%	18.6%	17.4%	28.7%	37.5%	20.1
2015-16	46.8%	63.9%	57.2%	58.8%	77.6%	50.1
2019-21	76.3	66.1	78.2	79.4	80.4	66.9
	Abdominal Pain					
2015-16	47.8%	64.8%	59.7%	62.3%	70.7%	51.8
2019-21	77.0	68.3	79.6	82.4	81.4	68.5
	High Blood Pressure					
2015-16	56.4%	61.9%	59.4%	60.4%	73.8%	51.6
2019-21	80.1	63.1	81.2	78.8	79.3	68.9
	Where to go for pregnancy complications					
2005-06	29.9%	38.5%	38.3%	61.4%	81.6%	41.1
2015-16	50.1%	77.6%	74.0%	69.2%	88.0%	67.2
2019-21	72.4	84.0	87.7	86.7	97.9	79.9
	Comprehensive information about pregnancy complications					
2015-16	28.2%	48.6%	41.4%	39.7%	54.6%	33.2%
2019-21	63.8	47.9	66.7	71.3	66.9	54

Table 5 Distribution of Women received Information on Comprehensive Pregnancy Complications BY Background												
Characteristics												
	India		J&K		West Bengal		Madhya Pradesh		Gujarat		Tamil Nadu	
NO OF ANC visits	2015	2020	2015	2019	2015	2019	2015	2019	2015	2019	2015	2019
0-3	23.6%	47.9%	22.0%	63.7%	28.9%	34.7%	34.2%	60.3%	31.2%	61.8%	46.2%	64.6%
4-6	37.8%	56.4%	27.5%	52.4%	47.9%	49.3%	48.4%	70.3%	37.3%	71.1%	48.6%	56.3%
7-10	39.2%	58.0%	29.1%	65.8%	49.7%	54.2%	46.6%	72.5%	40.0%	73.9%	57.3%	62.6%
11-20	44.3%	63.6%	29.8%	66.7%	71.2%	65.7%	50.3%	64.5%	49.8%	77.8%	57.8%	76.4%
Age of women												
15-19	33.9%	48.6%	26.2%	59.5%	47.8%	46.8%	37.6%	55.2%	41.0%	75.2%	48.0%	76.1%
20-29	33.5%	53.8%	28.1%	63.4%	48.3%	49.1%	41.3%	66.1%	38.7%	70.9%	56.5%	65.5%
30-39	32.6%	55.0%	28.4%	64.7%	49.7%	53.5%	42.9%	69.3%	42.2%	71.4%	50.0%	69.0%
40-49	27.6%	53.3%	26.3%	59.9%	56.0%	54.8%	36.7%	71.0%	36.9%	78.4%	39.7%	67.2%
Residence												
Urban	37.0%	56.1%	33.3%	71.8%	46.5%	56.3%	49.3%	68.3%	42.1%	75.0%	53.7%	68.3%
Rural	31.5%	53.1%	26.4%	61.3%	49.4%	47.2%	38.3%	66.2%	37.8%	68.8%	55.6%	65.8%
Usual resident or visitor												
Usual Resident	33.4%	54.2%	28.1%	63.9%	48.4%	49.8%	41.7%	67.0%	39.4%	71.4%	54.5%	66.8%
Visitor	31.4%	49.8%	31.8%	56.9%	50.8%	49.6%	37.9%	59.8%	43.5%	69.8%	59.8%	69.3%
Education												
Illiterate		49.9%	23.7%	58.7%	50.2%	44.0%	37.7%	65.0%	34.4%	72.0%	59.1%	60.0%
<5 years	25.5%	52.2%	25.4%	61.0%	48.6%	45.4%	39.2%	64.7%	32.2%	65.8%	43.0%	60.8%
5-9 years	32.6%	55.0%	27.6%	65.3%	47.7%	50.4%	40.6%	67.3%	38.1%	71.6%	55.8%	67.3%
10 and above	34.1%	56.2%	32.9%	66.3%	49.1%	57.8%	47.5%	68.7%	46.5%	75.0%	54.1%	67.3%
Religion												
Hindu	37.2%	54.6%	33.4%	59.1%	49.0%	47.6%	41.1%	66.9%	39.3%	70.7%	55.5%	66.9%
Muslim	33.7%	52.7%	26.2%	65.9%	44.8%	53.4%	47.5%	61.7%	42.2%	73.9%	45.5%	72.8%
Sikh	29.3%	47.2%	29.0%	100.0%	100.0%	65.6%	42.3%	80.2%	100.0%	87.3%	.0%	63.4%
Christian	44.6%	68.2%	.0%	58.0%	51.9%	67.0%	30.6%	42.2%	39.8%	100.0%	48.7%	
Other	31.3%	48.7%	29.1%	63.7%	69.0%	44.6%	48.8%	71.4%	59.9%	91.4%	25.4%	70.6%
Caste	38.0%											
SC		53.1%	33.3%	56.4%	51.3%	51.4%	43.3%	63.6%	46.6%	66.8%	54.5%	65.2%
ST	34.6%	55.1%	19.6%	62.0%	51.0%	33.7%	38.5%	70.0%	34.8%	82.0%	60.3%	60.9%
OBC	33.4%	52.9%	34.0%	57.5%	54.0%	56.8%	40.8%	67.1%	39.7%	68.5%	54.9%	67.7%
None	31.5%	56.4%	28.6%	66.4%	45.1%	49.3%	46.6%	63.3%	41.3%	73.5%	43.2%	72.2%

No. of Children Ever Born												
1	36.5%	55.7%	29.6%	65.8%	49.7%	50.4%	43.1%	67.8%	42.3%	72.2%	54.5%	67.1%
2	34.2%	54.8%	29.4%	63.5%	46.5%	48.2%	41.7%	67.2%	38.8%	70.8%	54.6%	67.3%
3 and above	27.7%	50.9%	25.1%	61.0%	49.3%	51.3%	39.4%	65.1%	36.9%	70.8%	55.2%	64.7%
Currently Working												
No	34.5%	54.9%	27.3%	64.6%	49.0%	52.7%	42.1%	66.3%	40.8%	73.8%	55.0%	67.7%
Yes	34.4%	54.3%	32.8%	67.6%	40.8%	49.3%	41.3%	68.6%	30.9%	73.1%	54.0%	71.1%
Final say on woman's health care												
Women	31.0%	52.5%	33.2%	51.1%	24.6%	41.5%	42.9%	56.9%	50.7%	91.9%	49.8%	67.4%
Women and Husband	36.4%	56.3%	29.1%	66.0%	51.5%	54.7%	43.1%	70.3%	39.7%	71.7%	55.9%	68.3%
Woman and someone else	32.0%		21.9%		51.8%		40.7%		34.4%		54.4%	
Husband	32.1%	52.0%	29.0%	67.6%	41.9%	49.5%	22.8%	58.0%	32.7%	66.6%	43.5%	70.2%
Someone else	27.4%	42.1%	33.0%		49.0%	44.2%	44.5%	48.3%	11.6%	71.6%	75.3%	93.6%
Others	26.5%											
Household wealth index in quintiles												
Poorest	25.3%	50.1%	20.7%	55.6%	48.8%	43.3%	32.4%	63.6%	23.5%	73.4%	52.7%	64.9%
Poorer	31.9%	51.9%	22.8%	56.4%	47.2%	51.2%	40.4%	66.0%	33.3%	70.7%	55.6%	64.0%
Middle	34.1%	53.9%	26.0%	64.8%	49.0%	51.8%	42.6%	70.2%	39.5%	67.3%	52.5%	68.4%
Richer	35.4%	55.6%	32.4%	71.8%	49.9%	55.9%	46.8%	68.3%	41.6%	69.8%	56.2%	66.1%
Richest	39.1%	59.4%	33.3%	63.5%	49.4%	61.1%	52.2%	68.7%	46.0%	75.4%	54.8%	67.9%
Total												

Table 6 Distribution of Women whose Received Selected Diagnostic Services During ANC						
	Weighted					
	J&K	West Bengal	Madhya Pradesh	Gujarat	Tamil Nadu	India
1998-99	22.5%	62.3%	31.3%	53.4%	87.9%	56.1
2005-06	26.3%	80.2%	54.6%	70.9%	96.4%	63.3%
2015-16	87.1%	99.2%	95.3%	97.3%	99.7%	90.5%
2019-21	98	99.4	98.8	99.4	99.4	97.3
	Blood Pressure Taken					
1998-99	80.5%	61.1%	36.8%	55.4%	84.2%	62.8%
2005-06	81.2%	72.0%	41.1%	73.7%	94.6%	63.9%
2015-16	96.0%	98.2%	91.9%	96.5%	99.7%	89.4%
2019-21	98.6	99.1	98.4	99.2	99.9	96.2%
	Urine Sample Taken					
	JK	WB	MP	Gujarat	TN	India
1998-99	82.4%	38.4%	37.2%	50.1%	77.1%	55.6%
2005-06	88.0%	50.8%	36.7%	63.1%	92.4%	58.2%
2015-16	97.0%	96.2%	87.9%	92.9%	99.6%	87.9%
2019-21	99.2	98	95.5	98.3	99.8	93.6%
	Blood Sample Taken					
1998-99	85.5%	46.4%	41.8%	51.1%	75.8%	59.3%
2005-06	86.1%	55.8%	41.8%	67.8%	92.4%	59.5%
2015-16	96.7%	95.1%	89.6%	94.7%	99.5%	87.3%
2019-21	98.9	98.2	97.1	98.8	99.9	94.2%
	Abdomen Checked					
	JK	WB	MP	Gujarat	TN	India
1998-99	87.0%	54.6%	54.5%	73.3%	90.2%	75.4%
2005-06	82.2%	67.6%	67.4%	82.3%	95.8%	72.2%
2015-16	95.7%	85.0%	87.6%	90.4%	98.8%	88.6%
2019-21	96.9	93.6	94.6	98.2	99.8	93.1%
	Received Comprehensive Diagnostics Services					
	JK	WB	MP	Gujarat	TN	India
1998-99	17.6%	22.0%	15.4%	36.3%	64.4%	37.0%
2005-06	22.5%	40.8%	23.6%	52.0%	88.3%	45.6%
2015-16	82.9%	81.7%	77.7%	86.1%	98.1%	76.8%
2019-21	93.8	91.3	91.5	96.8	99.7	88.2%

Table 7: Distribution of Women received Comprehensive Diagnostic Services by Background Characteristics

	State											
	India				J&K				West Bengal			
	1998	2005	2015	2020	1998	2005	2015	2019	1998	2005	2015	2019
NO OF ANC visits												
1-3	16.7%	18.8%	57.3%	79.2%	11.5%	12.5%	61.2%	87.0%	9.8%	21.1%	59.6%	83.4%
4-6	52.7%	63.1%	83.8%	91.4%	14.5%	19.1%	80.9%	91.4%	33.1%	56.9%	81.3%	90.5%
7-10	72.4%	84.8%	93.5%	96.5%	28.9%	33.8%	86.7%	95.0%	54.5%	83.5%	88.6%	95.5%
11-20	80.9%	92.2%	94.3%	97.2%	44.5%	34.9%	88.4%	96.3%	60.6%	74.0%	94.3%	96.0%
Age of women												
15-19	30.5%	36.8%	77.7%	85.5%	22.0%	.0%	87.5%	81.4%	20.8%	35.4%	82.5%	89.4%
20-29	38.8%	47.7%	77.9%	88.3%	17.2%	23.4%	82.4%	93.9%	22.2%	41.4%	82.1%	91.5%
30-39	35.2%	43.5%	74.6%	88.7%	18.0%	22.1%	84.3%	94.3%	23.8%	44.3%	80.1%	91.5%
40-49	19.8%	26.2%	59.9%	84.9%	14.3%	27.0%	74.2%	88.1%	7.4%	11.4%	75.4%	90.4%
Residence												
Urban	58.5%	69.4%	87.5%	93.2%	32.8%	40.7%	90.5%	95.5%	55.1%	75.8%	83.3%	93.4%
Rural	28.2%	34.7%	71.7%	86.3%	14.2%	16.7%	80.4%	93.3%	14.1%	30.0%	81.1%	90.5%
Usual resident or visitor												
Usual Resident	36.0%	45.3%	76.7%	88.3%	17.4%	22.0%	82.8%	93.8%	21.2%	38.4%	81.6%	91.1%
Visitor	44.0%	49.0%	77.8%	87.7%	18.6%	27.7%	88.5%	97.7%	29.1%	65.0%	83.8%	94.3%
Education												
Illiterate	18.9%	22.4%	56.9%	78.8%	12.2%	13.4%	75.3%	90.3%	8.7%	22.0%	69.3%	85.9%
<5 years	29.2%	37.5%	71.9%	84.3%	18.4%	13.2%	77.6%	89.4%	16.0%	31.9%	76.8%	88.4%
5-9 years	44.0%	52.5%	77.7%	90.4%	17.8%	20.4%	83.6%	94.5%	30.9%	48.4%	81.5%	92.2%
10 and above years	67.4%	77.3%	88.7%	94.3%	36.2%	44.5%	89.6%	97.7%	66.1%	86.5%	90.9%	94.7%

Religion												
Hindu	36.6%	45.8%	77.0%	88.4%	22.1%	32.9%	89.6%	95.6%	26.8%	47.7%	83.8%	91.7%
Muslim	32.7%	39.8%	71.8%	86.9%	14.3%	16.9%	80.1%	93.1%	11.0%	26.3%	76.4%	90.6%
Sikh	55.8%	52.6%	91.1%	87.1%	23.3%	57.1%	96.5%	100.0%	77.1%	92.9%	100.0%	94.2%
Christian	53.7%	67.5%	88.0%	95.0%	36.9%	100.0%	100.0%	93.7%	39.0%	60.2%	78.8%	100.0%
Other	49.1%	57.4%	86.8%	88.4%	.0%	.0%	93.3%	95.0%	17.6%	77.5%	87.0%	83.1%
Caste												
SC	30.9%	38.4%	74.3%	86.0%	21.2%	14.6%	84.4%	93.0%	18.8%	36.6%	82.9%	92.3%
ST	19.2%	27.8%	75.3%	88.4%	2.5%	13.0%	79.7%	91.3%	9.9%	26.5%	75.4%	87.1%
OBC	42.4%	44.8%	74.9%	87.7%	14.4%	18.6%	89.1%	94.6%	38.0%	57.1%	83.7%	93.3%
None	39.7%	55.6%	82.8%	91.5%	18.2%	25.9%	83.0%	94.0%	23.7%	43.1%	82.0%	91.7%
No. of Children Ever Born												
1	48.5%	57.3%	83.0%	90.9%	27.2%	26.2%	87.3%	95.4%	36.2%	55.7%	86.1%	92.0%
2	42.3%	54.3%	81.1%	90.1%	16.4%	30.3%	85.3%	94.0%	20.4%	41.5%	81.0%	91.6%
3 and above	42.3%	54.3%	81.1%	82.6%	13.6%	15.2%	75.7%	90.8%	10.3%	23.5%	71.1%	88.4%
Currently Working												
No	27.9%	39.5%	76.4%	88.0%	21.7%	24.6%	83.6%	95.3%	24.1%	45.5%	82.0%	91.1%
Yes	38.0%	40.8%		88.2%	10.1%	18.8%	82.7%	93.6%	14.0%	27.0%	67.7%	88.3%
Final say on woman's health care												
Women	61.8%	49.5%	21.0%	87.5%	22.8%	38.1%	84.8%	85.0%	24.9%	37.0%	71.8%	82.7%
Women and Husband	63.6%			88.6%	18.3%	24.4%	86.6%	95.8%	23.3%	45.3%	81.4%	92.5%
Woman and someone else	33.9%	43.6%	77.4%		18.9%	.0%	.0%		32.5%	.0%	.0%	
Husband	29.7%	32.5%	67.4%	87.1%	15.3%	19.2%	75.2%	94.0%	19.6%	39.5%	80.4%	87.0%
Someone else		45.9%	63.9%	84.3%	12.9%	18.3%	84.4%	100.0%	21.2%	42.9%	100.0%	94.4%
Household wealth index in quintiles												
Poorest	13.1%	16.6%	53.2%	78.5%	.0%	26.7%	67.3%	89.5%	6.3%	17.4%	71.1%	87.8%
Poorer	20.8%	26.4%	69.7%	86.0%	6.1%	5.4%	75.9%	90.0%	11.5%	25.0%	78.4%	91.0%
Middle	30.4%	43.0%	80.4%	90.2%	11.5%	10.9%	80.0%	93.2%	25.9%	45.6%	86.6%	95.1%
Richer	45.3%	57.4%	87.1%	93.0%	14.0%	23.0%	87.7%	96.1%	37.1%	70.4%	90.4%	94.0%
Richest	66.0%	79.9%	92.1%	95.3%	36.2%	45.0%	92.5%	96.8%	70.1%	95.5%	96.1%	95.3%

Table 7: Distribution of Women received SELECTED Diagnostic SERVICE RECEIVED BY Background Characteristics (contd)

	State											
	Madhya Pradesh				Gujarat				Tamil Nadu			
	1998	2005	2015	2019	1998	2005	2015	2019	1998	2005	2015	2019
NO OF ANC visits												
1-3	6.9%	11.5%	67.7%	86.6%	18.1%	25.5%	72.1%	91.9%	35.0%	64.0%	95.7%	99.3%
4-6	32.9%	40.6%	85.9%	93.7%	43.9%	56.5%	81.9%	96.3%	66.1%	81.4%	97.2%	98.7%
7-10	62.8%	77.9%	90.3%	96.3%	71.8%	81.5%	91.6%	98.6%	84.8%	93.8%	98.6%	99.8%
11-20	48.9%	74.0%	89.4%	97.6%	87.9%	96.3%	93.8%	99.2%	93.2%	98.9%	98.9%	99.8%
Age of women												
15-19	11.8%	12.8%	75.0%	91.4%	28.1%	26.7%	78.2%	98.6%	48.5%	90.7%	97.6%	98.8%
20-29	16.4%	25.4%	77.9%	91.6%	37.4%	53.4%	86.2%	96.7%	66.9%	89.2%	98.2%	99.6%
30-39	15.4%	22.6%	78.0%	91.5%	37.0%	52.7%	87.1%	97.2%	62.1%	86.6%	98.0%	99.8%
40-49	11.1%	10.0%	67.5%	91.6%	20.0%	62.8%	77.4%	92.9%	74.8%	77.0%	96.6%	100.0%
Residence												
Urban	33.4%	50.8%	88.4%	94.3%	58.0%	73.9%	91.8%	98.4%	78.3%	91.7%	98.5%	99.7%
Rural	8.0%	14.1%	73.4%	90.7%	22.9%	35.5%	81.4%	95.7%	57.3%	85.3%	97.7%	99.6%
Usual resident or visitor												
Usual Resident	14.8%	23.2%	77.5%	91.5%	35.9%	52.2%	86.0%	96.7%	64.0%	88.3%	98.1%	99.7%
Visitor	20.0%	27.9%	80.4%	91.7%	40.8%	50.1%	87.5%	98.9%	69.4%	89.2%	99.5%	100.0%
Education												
Illiterate	4.3%	10.4%	67.9%	86.0%	18.0%	26.8%	75.3%	94.6%	46.0%	77.0%	96.9%	100.0%
<5 years	12.6%	11.0%	75.8%	90.2%	24.2%	32.6%	78.4%	95.9%	52.9%	82.8%	97.9%	100.0%
5-9 years	20.5%	30.1%	77.4%	92.5%	41.3%	60.9%	86.3%	97.4%	70.0%	87.5%	97.2%	99.6%
10 and above years	53.7%	70.3%	89.1%	96.4%	70.3%	78.3%	93.5%	98.4%	85.2%	96.2%	98.7%	99.7%
Religion												
Hindu	14.6%	22.0%	77.1%	91.5%	34.9%	51.6%	85.7%	96.7%	63.3%	88.8%	98.2%	99.7%
Muslim	17.1%	38.2%	86.1%	91.0%	45.6%	57.8%	88.8%	97.1%	71.6%	87.7%	97.0%	99.4%

Sikh	27.6%	21.3%	95.1%	96.0%	33.2%	.0%	100.0%	100.0%	100.0%	.0%	100.0%	100.0%
Christian	26.8%	84.4%	66.7%	100.0%	56.5%	50.0%	95.3%	100.0%	75.1%	82.0%	98.3%	
Other	47.3%	69.8%	84.1%	90.8%	60.0%	.0%	94.8%	100.0%	51.1%	100.0%	100.0%	100.0%
Caste												
SC	9.5%	23.6%	77.5%	91.3%	26.9%	48.1%	85.9%	96.1%	52.0%	85.4%	97.9%	99.7%
ST	4.7%	8.2%	69.3%	90.7%	28.8%	35.4%	77.3%	96.9%	46.4%	70.9%	96.6%	100.0%
OBC	16.1%	21.7%	79.9%	91.9%	38.3%	46.9%	86.0%	96.7%	68.4%	89.3%	98.2%	99.6%
None	27.0%	49.6%	84.7%	93.0%	42.3%	63.7%	91.0%	98.3%	94.1%	100.0%	100.0%	100.0%
No. of Children Ever Born												
1	23.1%	34.2%	82.1%	93.5%	51.5%	59.9%	88.8%	97.2%	73.4%	93.5%	98.6%	99.6%
2	18.4%	30.7%	79.1%	92.2%	38.8%	60.5%	87.1%	97.0%	64.9%	89.7%	98.3%	99.8%
3 and above	10.0%	14.5%	71.5%	88.6%	25.8%	37.6%	80.5%	96.0%	51.7%	79.0%	96.2%	99.6%
Currently Working												
No	20.5%	28.0%	79.4%	91.2%	44.3%	60.8%	85.8%	98.4%	68.8%	90.0%	98.0%	99.9%
Yes	8.8%	16.5%	70.7%	91.5%	22.0%	37.4%	79.2%	94.6%	55.0%	85.0%	98.3%	99.3%
Final say on woman's health care												
Women	23.2%	27.6%	76.5%	88.2%	40.5%	52.4%	88.7%	98.8%	67.0%	87.0%	96.5%	100.0%
Women and Husband	15.7%	27.1%	78.4%	92.4%	39.8%	55.1%	85.8%	98.1%	57.7%	87.2%	98.4%	99.7%
Woman and someone else	17.9%	.0%	.0%		35.3%	.0%	.0%		66.5%	.0%	.0%	
Husband	12.8%	18.6%	77.6%	88.5%	31.0%	49.8%	81.0%	94.2%	64.6%	92.1%	98.0%	99.6%
Someone else	12.9%	27.0%	58.6%	86.5%	20.1%	45.4%	88.0%	94.1%	60.7%	91.8%	100.0%	100.0%
Household wealth index in quintiles												
Poorest	2.6%	8.1%	62.9%	86.3%	11.3%	18.1%	61.7%	93.5%	45.6%	78.7%	97.8%	100.0%
Poorer	4.3%	14.1%	74.8%	91.8%	11.7%	18.9%	77.6%	95.3%	42.9%	82.9%	97.4%	99.6%
Middle	6.0%	21.3%	81.8%	93.6%	17.4%	36.6%	84.5%	96.3%	62.0%	82.6%	98.1%	99.7%
Richer	18.6%	42.2%	87.5%	95.3%	35.1%	57.6%	90.9%	98.0%	75.0%	94.3%	98.0%	99.7%
Richest	48.8%	76.2%	93.9%	96.3%	67.6%	78.6%	94.3%	98.8%	90.0%	99.2%	98.9%	99.5%

Table-8: Distribution of Women Receiving Information on various delivery care issues						
	J&K	West Bengal	Madhya Pradesh	Gujarat	Tamil Nadu	India
			Delivery Care			
2005-06	46.8%	56.5%	39.8%	60.2%	89.7%	52.9
2015-16	80.7%	86.3%	85.4%	87.3%	94.3%	78.7
2019-21	91.8%	91.2%	95.0%	92.4%	94.9%	88.9
			Cord Care			
2015-16	63.1%	81.1%	76.2%	76.6%	90.4%	71.7
2019-21	91.6	87.7	90.6	93.1	94.6	84.8
			Breast feeding			
2015-16	79.6%	88.7%	85.6%	83.9%	97.6%	80.4
2019-21	93.0%	92.2%	94.7%	95.4%	97.9%	90.5
			Keeping Baby Warm			
2015-16	73.9%	84.3%	79.4%	80.8%	95.3%	75.7
2019-21	92.9%	91.3%	92.4%	94.3%	97.1%	87.3
			Information on Family Planning			
2015-16	60.7%	79.7%	74.6%	77.6%	90.7%	69.4
2019-21	87.6%	89.0%	90.9%	92.4%	95.2%	83.6%
			Comprehensive Information on various delivery care issues			
2015-16	22.1%	46.4%	41.6%	29.1%	53.5%	31.6%
2019-21	46.3%	63.3%	68.7%	60.2%	80.6%	51.7%

Table 9- Distribution of Women received Information on Delivery Care BY Background Characteristics

	India		J&K		West Bengal		Madhya Pradesh		Gujarat		Tamil Nadu	
	2015	2020	2015	2019	2015	2019	2015	2019	2015	2019	2015	2019
NO OF ANC visits												
0-3	24.3%	44.8%	46.1%	41.3%	55.4%	52.8%	57.2%	62.9%	57.3%	52.0%	80.8%	77.1%
4-6	35.3%	54.7%	51.9%	38.4%	61.9%	62.3%	67.4%	72.7%	55.9%	60.3%	77.7%	79.6%
7-10	35.9%	56.5%	49.1%	44.8%	74.3%	66.1%	67.7%	71.6%	65.8%	64.1%	83.4%	78.9%
11-20	40.1%	60.5%	48.0%	52.0%	91.6%	79.4%	63.3%	66.6%	59.0%	55.1%	88.2%	83.5%
Age of women												
15-19	31.5%	48.2%	57.9%	45.4%	64.3%	59.0%	52.3%	63.1%	51.8%	75.8%	68.2%	85.5%
20-29	32.7%	53.0%	49.1%	45.2%	69.3%	64.4%	62.0%	69.1%	60.0%	61.0%	83.8%	81.6%
30-39	29.1%	49.9%	50.4%	47.4%	71.6%	62.3%	66.5%	68.0%	62.5%	57.7%	83.4%	78.2%
40-49	24.2%	44.4%	36.7%	46.0%	72.4%	39.9%	62.7%	65.8%	58.7%	55.1%	83.6%	75.0%
Residence												
Urban	26.3%	46.3%	52.1%	39.4%	69.7%	52.8%	70.1%	63.6%	55.8%	50.1%	84.5%	77.0%
Rural	34.2%	53.8%	48.5%	48.5%	69.1%	67.2%	60.2%	70.2%	62.6%	67.1%	82.5%	83.5%
Usual resident or visitor												
Usual Resident	31.8%	51.9%	49.2%	46.3%	69.3%	63.4%	63.1%	68.9%	60.6%	60.3%	83.5%	80.8%
Visitor	29.6%	48.8%	52.1%	45.6%	69.4%	61.2%	57.4%	63.8%	58.3%	57.7%	78.9%	75.9%
Education												
Illiterate	26.6%	48.6%	46.6%	41.9%	69.5%	54.0%	59.2%	66.5%	56.3%	62.9%	83.0%	88.3%
<5 years	33.8%	52.4%	27.7%	53.7%	64.7%	59.6%	60.7%	69.2%	54.6%	62.0%	79.6%	89.0%
5-9 years	34.8%	53.8%	49.3%	48.0%	69.7%	66.3%	62.8%	70.6%	59.2%	61.9%	82.3%	82.8%
10 and above years	31.4%	48.2%	53.1%	43.3%	70.9%	58.6%	67.1%	62.0%	67.3%	47.0%	84.1%	76.5%
Religion												
Hindu	32.4%	54.4%	60.0%	40.8%	68.3%	61.4%	62.6%	68.8%	59.8%	60.6%	83.4%	80.8%
Muslim	25.5%	47.6%	44.4%	48.4%	68.4%	66.9%	63.3%	67.5%	64.0%	58.6%	88.0%	80.3%
Sikh	45.7%	37.0%	65.7%	.0%	.0%	58.0%	56.3%	64.7%	.0%	77.0%	.0%	76.1%
Christian	33.3%	49.6%	.0%	35.0%	66.9%	33.0%	68.7%	33.9%	65.2%		78.6%	
Other	36.8%	34.9%	61.0%	52.5%	89.0%	49.9%	65.3%	71.4%	100.0%	39.8%	.0%	29.4%

Caste												
SC	36.2%	54.1%	61.1%	39.2%	69.0%	65.7%	65.6%	66.2%	63.1%	57.9%	84.4%	82.6%
ST	38.1%	51.8%	47.3%	52.1%	69.3%	58.2%	59.6%	74.0%	59.4%	80.0%	83.4%	87.6%
OBC	30.5%	54.0%	44.9%	54.0%	67.5%	70.2%	62.6%	68.8%	62.8%	60.1%	83.4%	80.0%
None	27.5%	46.5%	48.4%	43.3%	69.6%	58.0%	66.0%	61.6%	56.2%	47.3%	59.1%	66.4%
No. of Children Ever Born												
1	31.9%	51.7%	46.1%	45.3%	68.9%	63.2%	61.1%	67.8%	62.3%	58.4%	81.4%	78.2%
2	34.0%	53.6%	52.3%	48.6%	69.9%	64.7%	64.0%	69.5%	62.9%	60.0%	84.6%	82.2%
3 and above	28.2%	49.5%	49.6%	44.2%	69.1%	60.1%	62.8%	68.6%	54.2%	63.0%	84.4%	82.1%
Currently Working												
No	32.0%	51.4%	49.8%	45.5%	75.2%	66.2%	64.0%	68.5%	61.0%	58.7%	84.6%	73.8%
Yes	36.1%	54.5%	44.8%	53.2%	62.0%	67.1%	63.2%	70.1%	65.2%	66.9%	77.5%	84.4%
Final say on woman's health care												
Women	31.4%	47.1%	59.6%	31.7%	57.3%	51.4%	66.7%	62.7%	72.4%	61.7%	79.0%	56.8%
Women and Husband	34.5%	53.0%	51.4%	47.6%	77.0%	68.7%	65.1%	71.7%	66.4%	60.1%	86.1%	80.0%
Woman and someone else	31.0%		38.6%		73.8%		64.4%		54.0%		77.9%	
Husband	30.7%	51.1%	61.8%	48.1%	49.1%	65.6%	32.0%	63.2%	56.9%	62.8%	77.5%	75.2%
Someone else	19.4%	46.9%	43.6%	58.4%	.0%	47.8%	42.3%	49.8%	17.7%	52.6%	92.2%	93.6%
Others	23.4%		49.3%		68.4%		62.5%		59.8%		83.4%	
Household wealth index in quintiles												
Poorest	29.5%	50.3%	38.8%	44.1%	70.9%	63.0%	54.5%	68.4%	50.4%	69.2%	81.7%	86.5%
Poorer	34.4%	52.4%	44.6%	44.3%	68.7%	65.3%	62.5%	69.9%	58.2%	68.1%	81.9%	84.3%
Middle	35.3%	54.6%	48.7%	49.9%	67.1%	67.3%	64.8%	72.5%	62.0%	62.8%	79.9%	85.6%
Richer	32.4%	54.0%	53.0%	48.6%	68.6%	59.7%	67.3%	70.2%	62.3%	62.6%	86.2%	81.4%
Richest	25.8%	47.2%	53.5%	43.0%	76.7%	47.3%	72.6%	60.1%	61.5%	46.2%	86.4%	70.9%

