

**Factors Determining the Utilization of Postnatal Care in Rural
Areas of Bathanaha Block, Dist. Sitamarhi, Bihar**

**Internship Training
at
CARE India**

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**Under the guidance of
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**Post Graduate Diploma in Hospital & Health Management
2012–14**


**Institute of Health Management Research
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TO WHOMSOEVER MAY CONCERN

This is to certify that Dr Rohit Raina student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at CARE Patna from 27 January 2014 to 30th April 2014.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.



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**Certificate of Completion of dissertation for the duration of three
months from Care India - Bihar**

The certificate is awarded to **Dr. Rohit Raina** in recognition of having successfully completed his dissertation in the department of **Strengthening of Kala-Azar Elimination Project (SKAEP)** and has successfully completed his project onxyz topicfrom 1st February to 1st May at Sitamarhi district in Bihar

Date -22 May 2014

Organization – Care India Solutions for Sustainable Development- Bihar

He comes across as a committed, sincere and diligent person who has a strong drive and zeal for learning. We wish him all the best for future endeavors


Dist. Manager
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Factors determining the utilization of Post natal care at Bathanaha block, Sitamarhi dist, Bihar" at CARE Patna, submitted by Dr Rohit Raina Enrollment No 1366 under the supervision of Dr Barun Kanjilal for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 27 Janurary 2014 to 30th April 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Signature

Rohit Raina
28/05/2014

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Dr. Rohit Raina

PREFACE

Dissertation is an integral part of the PGDHM curriculum. As a part of the course; students of the second year are required to undergo summer training at an organization to get in depth exposure of various departments in the organization and better understanding of the health care delivery system.

The major objectives of the dissertation programs are to better understand the existing health delivery system including public and private sectors, observe the implementation of various National Health Programmes at National/State/District levels, understand various functions of health systems by interactions with key stakeholders, policy makers, programme managers, academicians and researchers and work on the project/task assigned by summer training organizations.

During our training period we had an opportunity to work for CARE, Patna in their ongoing project of SKAEP.

ABBERVATIONS

ANC	Antenatal care
ANM	Auxiliary nursing midwife
ASHA	Accredited social health activist
AWC	Aanganwadi centre
A.P.L.	Above Poverty Line
BCG	Bacillus of Calmette and Guerin
B.P.L	Below Poverty Line
CARE	Cooperative for Assistance and Relief Everywhere
DPT	Diphtheria Pertussis and Tetanus
F.P.	Family Planning
ICDS	Integrated child development services
IFA	Iron and Folic Acid tablet
IMNCI	Integrated management of neonatal and childhood illness
IMR	Infant Mortality Rate
IUD	Intra Uterine Contraceptive Device
JSY	Janani suraksha yojana
LBW	Low Birth Wiegth
MMR	Maternal Mortality Ratio
NRHM	National rural health mission
OBC	Other Backword Class
OPV	Oral Polio vaccine
PHC	Primary health centre
PNC	Post natal care

PPH	Post Partum Haemorrhage
SC	Schedule Caste
ST	Schedule Tribe
TT	Tetanus Toxoid
USG	Ultra Sonography

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Chapter 1

Background of Organisation under which Dissertation was completed

CARE India

CARE has been working in India for over 60 years, focusing on ending poverty and social injustice. This is done through well-planned and comprehensive programmes in health, education, livelihoods and disaster preparedness and response. Their overall goal is the empowerment of women and girls from poor and marginalized communities leading to improvement in their lives and livelihoods. It is a part of the CARE International Confederation working in 84 countries for a world where all people live in dignity and security.

CARE Patna

Background:

1.1. RMNCH+A – Campaign by GoI

- Call to Action in Jan 2013 by GoI - with a focus MDGs 4 & 5 and 12th Five Year Plan Goals for 2017

- 187 High Priority Districts(HPDs) supported by lead development partners (DFID, UNICEF, BMGF, UNFPA)

- 10 focus districts in Bihar with BMGF as state lead partner with HPDs supported by DFID, UNICEF, UNFA and NIPI

Lead partner in collaboration with all development partners to set up of State RMNCHA Unit and deploy necessary technical support at district level

1.2. Technical Support to Government of Bihar

Provide Technical Support to GoB to achieve state wide impact by 2017:

- Support rolling out of RMNCHA campaign to improve coverage of key interventions
- Scaling up of solutions under Common Minimum Package
- Additional technical support to meet the huge challenges in area of Family Planning and Nutrition
- High quality program management support at Divisional, district level and block level to DHS and ICDS
- Making available robust concurrent monitoring data at state, region and district level to strengthen HMIS and data driven program management

1.3. Technical Support Unit to consist of following components

- **State RMNCHA Unit (SRU)** to support SHS in rolling out RMNCHA campaign and harmonization efforts of development partners
- **Strengthen the Family Planning Cell** at SHS in the areas of clinical training, supply chain management, PPP and data analysis.
- **Strengthen Program Management Capacities of NRHM and ICDS at block, district and divisional level** by providing techno managerial support and mentoring for improved program performance in close coordination with staff of development partners
- **Concurrent Monitoring Cell(CML)** to strengthen data driven management at state, division, district and block level by making available real time concurrent monitoring data through household, provider, facility, clients surveys on coverage and systems (infrastructure, HR, drugs and commodities etc)

1.4. Program Performance Support

- Provide programmatic and technical skilling and mentoring at block and district levels
- Support, guide and mentor district and block level leaders to take professional ownership of program
- Skilling, facilitating and supporting key health and ICDS program managers

- Work closely with field staff of the programs of different Development Partners in supporting GoB programs
- Improve coverage and Quality of essential services – through application of a set of prioritized, proven solutions at community and facility levels (public and private)
- To strengthen leadership and ownership of solutions - through strategic visioning, on-going mentoring and techno-managerial support in the areas of planning, budgeting and fund flow, logistics and supplies, human resources and information systems

VL TEAM – Roles:

- Formulate strategies to support GoB in the VL elimination program.
- Provide Operational and Technical support to the field staff.
- Support, guide and mentor district and block level leaders to take professional ownership of program
- Lead and Drive interventions through a data driven management support to block and district Leadership to
 - use data to plan and budget, prioritize time and resources, and identify challenges
 - to systematically analyze, propose, test and measure potential solutions;
- Work closely with field staff of the program of different Development Partners in supporting GoB programs.

Eliminate VL from all districts of Bihar.

- Enhance the quality of IRS through improved methods and techniques.
- Detect all VL and PKDL cases across all villages.
- Ensure complete cure of all detected cases.

- Build sufficient capacities within the Government machineries to sustain elimination.

Chapter 2

Dissertation Topic: “Factors Determining the Utilization of Postnatal care in rural areas of Bathanaha block, Sitamarhi dist. Sitamarhi, Bihar”

2.1. INTRODUCTION

The postnatal period (or called postpartum, if in reference to the mother only) is defined by the WHO as the period beginning one hour after the delivery of the placenta and continuing until six weeks (42 days) after the birth of an infant. Care during this period is critical for the health and survival of both the mother and the newborn.

Postnatal care is one of the most important maternal health-care services for prevention of impairment and disabilities and also reduction in maternal mortality. When it comes to practice, postnatal care is the most neglected one compared with ANC. The majority of maternal and newborn deaths occur within the first week of the postnatal period. Postnatal care influences both women and children's lives, in terms of reducing frequent pregnancies and increasing effective contraceptive use.

Proper utilization of health care during the postnatal period can reduce morbidity and mortality among mothers and neonates. However, there is no information available about utilization of postnatal care particularly in these villages. Considering the situation of under-utilization and lack of resources for maternal

health services in these villages, there is a need to assess the current situation of the utilization of postnatal care.

Maternal and infant deaths in India is 212(SRS 2013) per one lakh and 42(SRS 2013) per one thousand respectively, which is still very high compared to developed countries. Most maternal deaths occur during labor, delivery or the first 24 hours postpartum, and most intrapartum complications cannot be reliably predicted or prevented, though most can be successfully treated with prompt and appropriate diagnosis and care. The neonatal period is only 28 days but accounts for 38 percent of all deaths in children younger than 5 year. ANC and PNC have the potential to contribute to reducing maternal and child morbidity and mortality.

Even after the launch of different schemes under NRHM for improving mother and child health, people are not availing the services even to the minimum expected level because of many reasons including their social, cultural barriers and their own attitude towards the health services? Is this the failure of our health system even after launching the giant projects like NRHM or is it the reluctance of people to avail these services?

Bihar with a population of 104 million is the second most populous state in India, next only to Uttar Pradesh. Despite efforts in the last few decades to stabilize population growth, the state's population continues to grow at a much faster rate (25.07 percent) than the national population (17.6 percent) in terms of decennial growth. The state is densely populated with 880 persons per square kilometer as against the country average of 324. The sex ratio of the state at 916 females per 1000 males is also less favorable than the national average of 940 females per

1000 males. The state has 38 districts divided into 9 administrative divisions. In addition, the state has 101 sub-divisions, 534 community development blocks, 9 urban agglomerations, 130 towns and 37,741 villages.

All key health indicators in Bihar are worse than the national average. Increasing fertility, lack of improvement in antenatal care especially in post natal care and worsening of under-nourishment amongst children are key areas of concern. In other areas there is improvement, albeit very minimal. The MMR in Bihar is 294 per 100,000 (AHS, 2012) live births whereas the IMR is 43 per 1000 live births (SRS, 2013), high level of anemia among women (63.4 percent compared to national figure of 51.8 percent), low provision of iron and folic acid tablets to antenatal cases (8.1 percent compared to national figure of 20.4 percent), and low level of complete antenatal coverage (5.4 percent compared to national figure of 16.4 percent). Low female literacy rate in the state, particularly in rural areas, is one of the major reasons for poor health conditions in the state. According to the 2001 census, female literacy rate in the state is 33.57 percent against the national average of 54.28 percent. Due to illiteracy, there is a lack of awareness among women about antenatal, intranatal and postnatal care, especially in rural areas.

Key indicators related to Maternal and Child Health (MCH) and Family Planning clearly show the poor health status in Bihar. Roughly 51.5 percent of the girls in the state get married below the age of 18 years compared to the national figure of 28 percent. The proportion of couples practicing any method of contraception is 34 percent against the national figure of 53.9 percent. Some of the reasons affecting the implementation of the Family Planning program in the state are: lack

of health facilities, both in terms of physical infrastructure and skilled human resources to deliver quality family planning services, evidently low exposure to mass media in Bihar, leading to lower exposure of family planning messages in the community, particularly among rural and socioeconomically disadvantaged groups. The program has also failed in being able to take effective measures to increase the median age at marriage and first childbirth, etc (DLHS-3).

2.2. PROBLEM STATEMENT

Factors associated to utilization of and PNC services have been the major cause of maternal and infant deaths in the rural areas of --- district since, long government health facilities, in spite of being the main source of health care services for majority of people, especially for those having low income; has very poor condition. ANC and PNC services are key health interventions for reducing maternal and newborn morbidity and mortality. Although the current rate of ANC uptake is encouraging, detailed information about the actual quality utilization and effectiveness of ANC in practice is scant, similarly, little evidence is available for the utilization of routine PNC services.

Therefore, it's important to improve the quality of services in the government facility, which can be achieved by stressing on the context of care provided so that there is proper access and utilization of ANC and PNC services to all women in the district. Assessing factors that hinder such services will help to identify the

gaps in the accessibility and utilization of these services, in order to determine the best intervention to improve them.

India's targets do not directly address ANC and PNC as major component of maternal health, yet there is ample evidence to show that PNC use is very low. It is reported that only 23 percent of the mothers who had had live births received postpartum care within the critical first two days after delivery; and overall, 74 percent of the women did not receive postpartum care at all (UBOS 2007). The MMR in Bihar is 294 per 100,000 (AHS, 2012) live births whereas the IMR is 43 per 1000 live births (SRS, 2013). Key indicators related to Maternal and Child Health (MCH) and Family Planning clearly show the poor health status in Bihar. Roughly 51.5 percent of the girls in the state get married below the age of 18 years compared to the national figure of 28 percent. The proportion of couples practicing any method of contraception is 34 percent against the national figure of 53.9 percent (DLHS-3).

The study therefore intends to assess these anticipated bottlenecks to ANC and PNC utilization with the view of improving utilization of the services.

2.3. LITERATURE REVIEW

High maternal morbidity and mortality has always been main source of concern and antenatal and intrapartum care aimed at reducing maternal morbidity and mortality has been components of the Family Welfare program since inception. W.H.O. aims strategy which promotes universal access to antenatal care, skilled

birth attendance and early postnatal care will contribute to sustained reduction in maternal and neonatal mortality. Maternal and child healthcare is one of the eight basic components of ALMA ATA declaration, (1)Mothers who had not received good quality ANC were found to be more at risk of having low birth weight babies and there is clear association between infant mortality rate and lack of poor quality ANC, (2)Antenatal care service utilization was generally good while the postnatal care given to new born children was very low compared to other population groups in the region, (3)Lack of knowledge about the PNC services could be a major barrier to women's utilization of postpartum services. Due to lack of knowledge pregnant women are likely to have limited knowledge and experiences in seeking health care. Papers on "Assessment of utilization of ANC and PNC in Uganda" published by Matua (2004) and Jewkes et al (1998) cited lack of adequate knowledge and information districts of Uganda found that the use of primary health units and referral hospitals access of ANC and PNC including reporting any complications was considered only as a last resort (Onama 2001, kyomuhendo, 2003). Accordingly, some of the reasons for this would be lack of skilled staff at primary health care level, abuses, neglect and poor treatment in hospitals, poor hygiene in the labor wards, lack of privacy and poorly understood reasons for procedures such as caesarean sections and frequent assessment of labor by several providers which may be in conflict with cultural norms plus health workers views that women were ignorant (Kyomuhendo, 2003). These concerns are further compounded by the limited number of health providers available to pregnant women that have no ability to exercise their choice of which

provider they would like to see (Onama), about pregnancy, laboratory tests results and dangers of late bookings or not attending ANC at all, as contributors to the poor utilization of PNC services (Ministry of Health Annual Report, 2007).

2.4. RESEARCH QUESTION

- What is the level of utilization of postnatal care services in rural areas of District Sitamarhi, Bihar?
- What are the critical factors determining the utilization of postnatal care services in rural areas of District Sitamarhi, Bihar?

2.5. MAIN OBJECTIVE

- To assess the level of utilization of Postnatal care services in rural areas of District Sitamarhi, Bihar
- To identify the critical factors affecting the utilization of Postnatal care services in rural areas of District Sitamarhi, Bihar

2.6. SPECIFIC OBJECTIVES

- To study the relationship between mothers' age at birth and utilization of postpartum care services.
- To study the relationship between mothers' education and utilization postpartum care services.

- To study the relationship between place of delivery and utilization of postpartum care services.
- To assess the knowledge of beneficiaries towards postpartum care services

Chapter 3

METHODOLOGY

3.1. Study Area

11 villages of Bathanaha block of Sitamarhi dist. in Bihar. The study villages were Saiyara, Panthpakar, Lakshmipur, Rupouli, Koilli, Ramnitola, Bathuwadi, Bhusulwa, Nathu tola, Madhopur, Bathanaha (nagar panchyat).

3.2. Study Design

The study is based on Analytical (Retro-sepective) study design with the study period of 3 months as the actual Post natal care period is of 42 days.

3.3. Target population

120 Mother who delivered in last three months was decided to be taken as study sample because the sample will follow the normal distribution. But out of 120 mothers only 100 mothers were being interviewed successfully as other 20 mothers denied as the area of study is influenced by naxalites and most of the mothers who denied belong to Musher community who are resistant to outsiders.

3.4.1. Sampling procedure

Combination of probability (simple random sampling) and non-probability (Purposive) sampling was introduced for the study keeping in view that all the four corners of the bathanaha block are taken into consideration.

3.4.2. Data collection techniques and Tool

In depth interview of respondents was done. And the questionnaire included both close and open ended questions.

3.5. Sample size

100 beneficiaries (obstetric mother) were interviewed successfully out of 120, so only 100 respondents have been included in the study. The mothers from different villages were selected on the basis of their availability and population of the village.

Table 1: Percent distribution of respondents by villages

S.no	Name of villages	No. of Respondents (%)
1	Bathanaha (nagar panchyat)	23
2	Saiyara	28
3	Panthpakar	12
4	Lakshmipur	8
5	Rupouli	7
6	Koilli	7
7	Ramni tola	4

8	Bathuwadi	4
9	Bhusulwa	3
10	Nathu tola	2
11	Madhopur	2

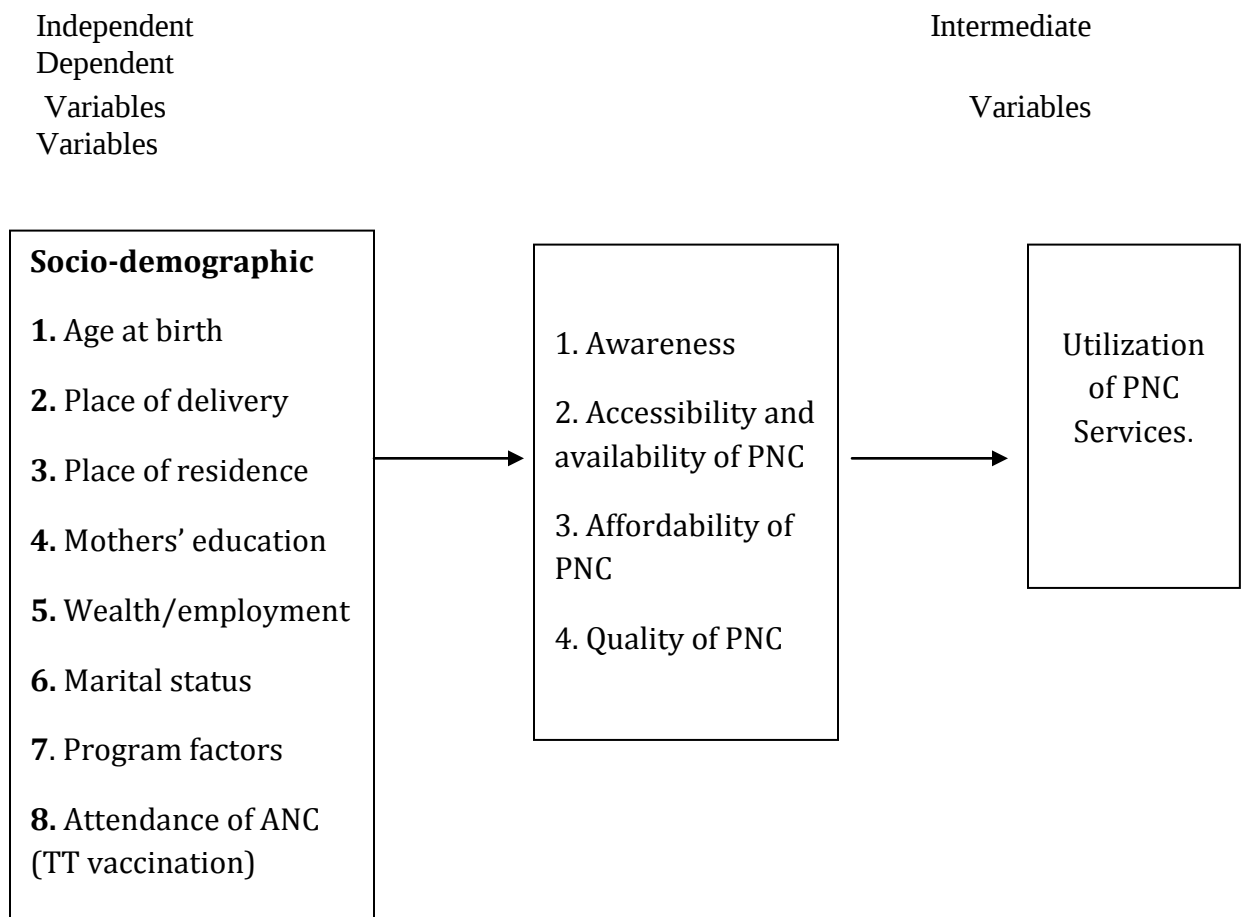
Data collection tool-Questionnaire blended with both qualitative and quantitative type of question. It focused on exploring factors that contribute to low utilization of postpartum services in Bihar. Data collection technique employed to administer study tool was in-depth interview of mothers.

3.6. Ethical consideration

Informed consent was obtained from all 100 respondents. They were informed about the purpose of the study and were given choice to withdraw at any point of time if they were not comfortable with the interview.

3.7. STUDY VARIABLE

Conceptual framework explaining the relationship between the independent factors and the dependent factors



Chapter 4

FINDINGS OF THE STUDY

Respondent: women who delivered in last 3 months within the age group (15-49 years)

This chapter presents the findings of the study using univariate and bivariate analysis. The univariate analysis results include the background characteristics of the respondents and the intermediate variables that affect use of postpartum services. The chapter also describes the respondents according to the different demographic, economic and socio-cultural factors that are believed to determine the use of postpartum services among mothers.

4.1. Distribution of respondents by demographic and economic characteristics

The demographic factors identified in this research were age, place of residence, type of previous residence, level of education and religion.

Table 2: Percent distribution of respondents by their Socio-demographic and economic characteristics

Age Group (years)	Frequency	Percent
15-19	7	7.0
20-24	43	43.0
25-29	34	34.0

30-39	16	16.0
Total	100	100.0
Type of house		
Kaacha	60	60.0
Semi Pucca	34	34.0
Pucca	6	6.0
Total	100	100.0
Religion		
Hindu	93	93.0
Muslim	7	7.0
Total	100	100.0
Caste category		
General	5	5.0
OBC	60	60.0
SC	31	31.0
ST	4	4.0
Total	100	100.0
Marital status		
Currently married	99	99.0
Widowed	1	1.0
Total	100	100.0
B.P.L status		
BPL	81	81.0
No BPL	19	19.0
Total	100	100.0
Annual household income		

Up to 30000	36	36.0
Between 30001 to 60000	49	49.0
Above 60000	15	15.0
Total	100	100.0
Respondents current working status		
Currently working	32	32.0
Not working	68	68.0
Total	100	100.0

Table 1 shows the distribution of respondents according to their socio-demographical and economical backgrounds. The results of the study revealed that 7 percent of the mothers who took part in the study were aged between 15 and 19 years, most of the mothers (43 percent) were aged between 20 and 24 years, and nearly one-third were aged between 25 and 29 years, and rest of the mothers (16 percent) were aged between 30 and 39 years. The study shows that 77 percent of the mothers were living in rural areas where as only 23 percent were from semi urban areas.

Mothers (60 percent) from backward classes were predominant than other caste categories which is followed by 31 percent of mothers of schedule caste. Most of the mothers (60 percent) were living in Kaacha houses where as only 6 percent were living in Pucca houses.

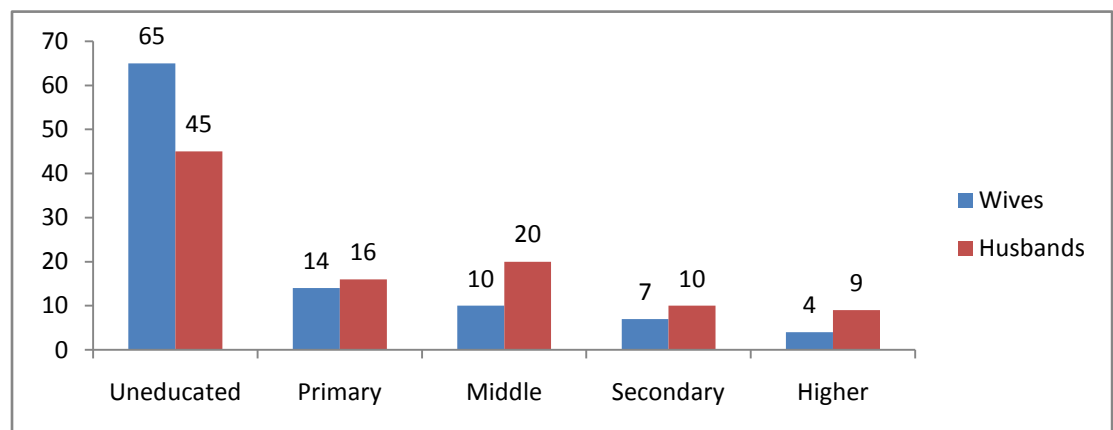
Of the interviewed respondents, 93 percent of the mothers were Hindu community and merely 7 percent were from Muslim community. Of the 100 mothers who

were interviewed, 99 mothers were married, and only one was widowed. Most of the mothers (68 percent) were not working whereas only 32 percent were working.

4.2. Educational status of delivered mothers and their husbands

The delivered mothers and their husbands were assessed for their education level. 65 percent of the delivered mothers were uneducated while their husbands were more educated compare to them.

Graph 1: Percent distribution of respondents by their and their husband's education status

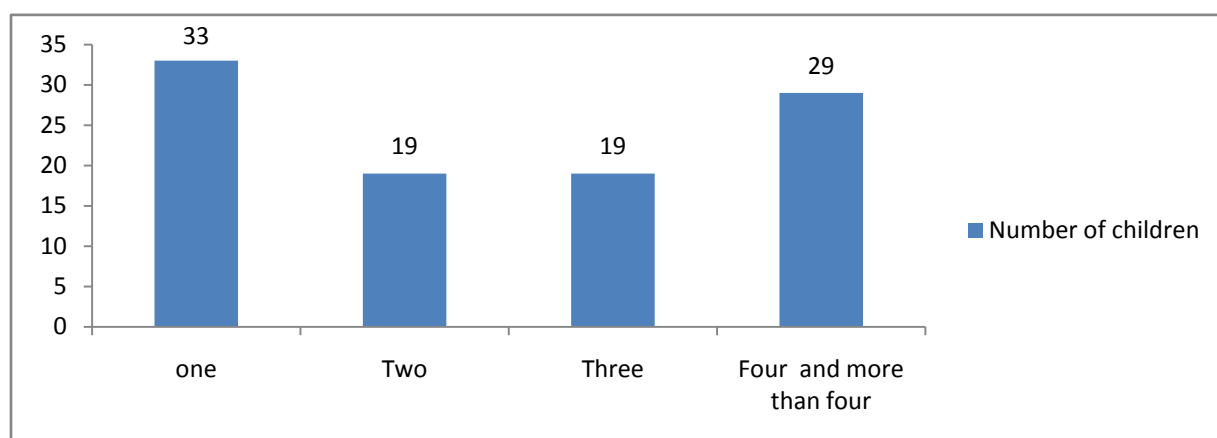


Most of the mothers (14 percent) who were educated had attended school only upto primary levels where as most of their husbands who were educated had attended school upto middle level.

4.3. Number of children

Almost one-third of the mothers had only one children because most of the mothers were of young age where as 29 percent of mother were having four and more than four children. But still only 14 mothers were planning for permanent sterilization or for other contraceptive methods and rest of them were not planning for any contraceptive methods because of only male child preferences and their religious belief etc.

Graph 2: Percent distribution of respondents by their Number of children



4.4. Age at first marriage and Age at first conception

The onset of child bearing is an important demographic indicator. Postponement of first births, reflecting a rise at the age of marriage can make an important contribution to overall fertility decline.

Table 3: Percent distribution of respondents by their age at first birth and age of marriage

Age group	Age at marriage (valid %)	Age at first conception (valid %)
13-14	1	0
15-19	84	46
20-24	15	52
25-34	0	2
Total	100.0	100.0

Table 3 shows the comparison between women's age at first birth and age of marriage. Most of the mothers (84 percent) got married at the age group 15-19 and 46 percent of mothers had their first birth in the same age group. Nearly half of all women conceive their first birth at the age group 20-24. Only 2 percent of the mothers conceive their first birth at the age 25 years and above it. Thus child bearing and marriage at young age is very common across the block. Another 1 percent is the mothers who get married at very young age group 13-14.

4.5. Place of delivery and Assistance during delivery

The majority of the maternal deaths and much of chronic morbidity resulting from childbirth are due to the failure to get timely help for complications at delivery. It

is essential that delivery be conducted under proper hygienic conditions with the assistance of a trained medical practitioner.

Table 4: Percent distribution of respondents by place of delivery and assistance during delivery

Place of delivery	Frequency	Valid percent
Home	23	23.0
Govt. facility	73	73.0
Private facility	4	4.0
Total	100	100.0
Assistance during delivery	Frequency	Valid percent
TBA	10	10.0
ANM	61	61.0
Doctor	16	16.0
Relatives	13	13.0
Total	100	100.0

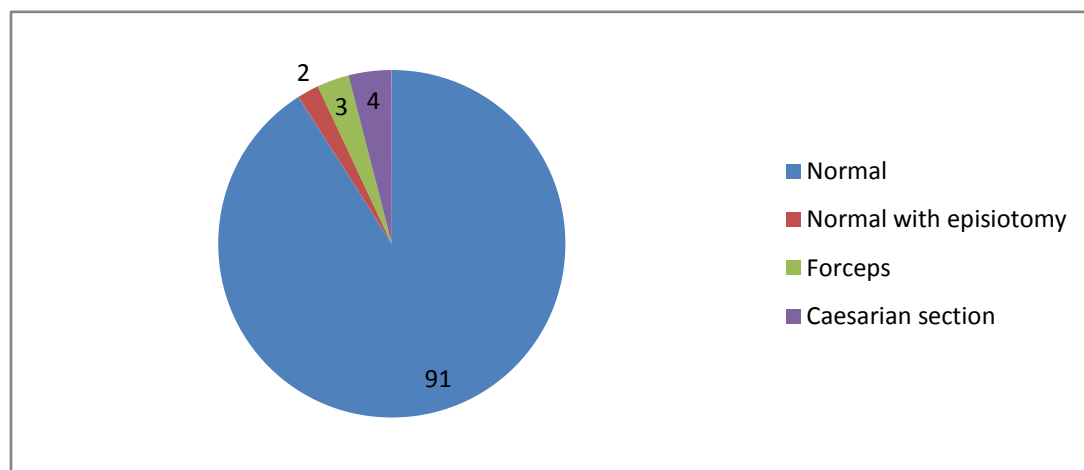
Table 4 presents the percent distribution of live births occurring during the three months preceding the survey according to place of delivery and selected background characteristics. On Most of the births (77 percent) during the last

three months occurred in medical institution with 73 percent in public institution and 4 percent in private health facilities. The proportion of births taking place in medical institutions is higher among higher order births than among lower order births. The type of assistance during delivery also varies according to the place of delivery. Only 16 percent of the institutional births were attended by Doctors where as rest were attended by ANMs. The mothers (3 out of 4) who delivered at private facilities even with low economic status went to private hospital because they had to undergo caesarian section. Only 1 percent caesarian section was done at govt. facilities. Another 10 percent of deliveries were attended by traditional birth attendants and 13 percent were attended only by relatives, friends or neighbours even after having most of the delivery facilities at the reach of 30 minutes.

4.6. Type of delivery

All mothers were interviewed and asked what type of delivery they had. Most of the mothers (91 percent) had a normal delivery with minimum complication like pain in abdomen, vigorous uterus contractions which were treated by medicines. Whereas 4 percent mothers underwent caesarian section. 2 percent of the mother's delivery was normalized by performing episiotomy. Another 3 percent deliveries were facilitated by forceps.

Graph 3: Percent distribution of respondents by type of delivery



4.7. Mode of Transportation used to reach delivery point

Accessibility and availability of the health facilities plays a very important role in availing health services, especially institutional deliveries.

Table 5: Percent distribution of respondents by modes of Transportation used to reach delivery point

Modes of Transportation	Frequency	Valid Percent
Private	32	32.0
Public	32	32.0
Govt. ambulance	4	4.0
Others	9	9.0
Not applicable	23	23.0

Total	100	100.0
Distance of nearest Level 1 facility	Frequency	Valid Percent
Within 30 minutes	89	89.0
More than 30 minutes	11	11.0
Total	100	100.0

The Govt. has started Jannani express which is absolutely free to increase institutional deliveries and to reduce deliveries related complications attributed to the delay. But the study revealed that only 4 percent of mothers availed Govt. ambulance services. Almost 64 percent of the mothers reached to the facility by private and public transport. Another 9 percent mothers were those who reached to the facility either by cart or walk. And around one-fifth of the mothers didn't used any modes of transport as they preferred home delivery.

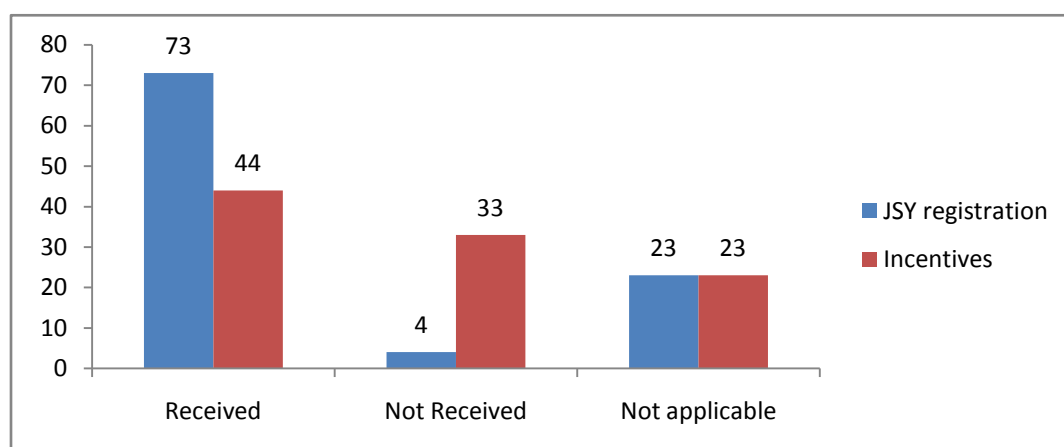
The mothers were also asked how far the nearest delivery point in the block is. Most of the mothers (89 percent) were residing at the places which were only 30 minutes away from level 1 facility. To improve the maternal service coverage, the govt. of the Bihar has turned most of the Govt. facilities in to level 1 delivery points which even includes Sub centers. To improve the maternal coverage, level 1 facility is being provided at most of the additional primary health centers also. Though most of the mothers are near to the delivery points but still 15 percent of these mothers delivered at another facility which is farer because quality of the

delivery services were not good at those facilities and almost half of them get closed early, as health workers were not available in late evening and night.

4.8. Utilization of JSY Scheme

The graph no. 4 shows the distribution of mothers who received JSY benefits. As per the Scheme, the mothers who deliver at institutions will become eligible to get the incentives (1400 INR).

Graph 4: Percent distribution of respondents by utilization status of JSY Scheme benefits



The scheme was introduced to increase institutional delivery in India. 73 percent of the mothers were registered in the JSY register at PHCs but out of them only 44 percent of the mothers received incentives. 4 percent mothers were neither registered nor did they receive incentives. Nearly one-fifth of the mothers didn't

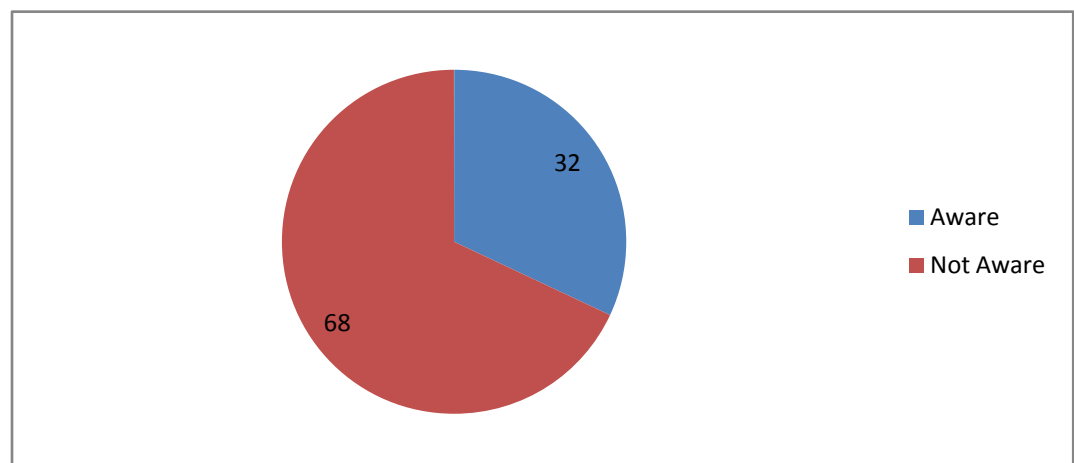
received were not eligible to avail JSY scheme as these were the mothers who delivered at home.

Postnatal care

4.9. Awareness about Postnatal Care

The graph 5 shows that out of total 100 mothers only 32 mothers were aware of postnatal checkup. Lack of awareness is one of the crucial barriers for the utilization of postnatal care. After being interviewed further, even in those, 32 percent of mothers who knew about Post natal care, most of them said that PNC is about regularly breast feeding the child, washing mother's hands properly and applying oil to the baby. Very few of them knew about the dangerous symptoms which will be discussed later in the study.

Graph 5: Percent distribution of respondents by Awareness of Post natal care



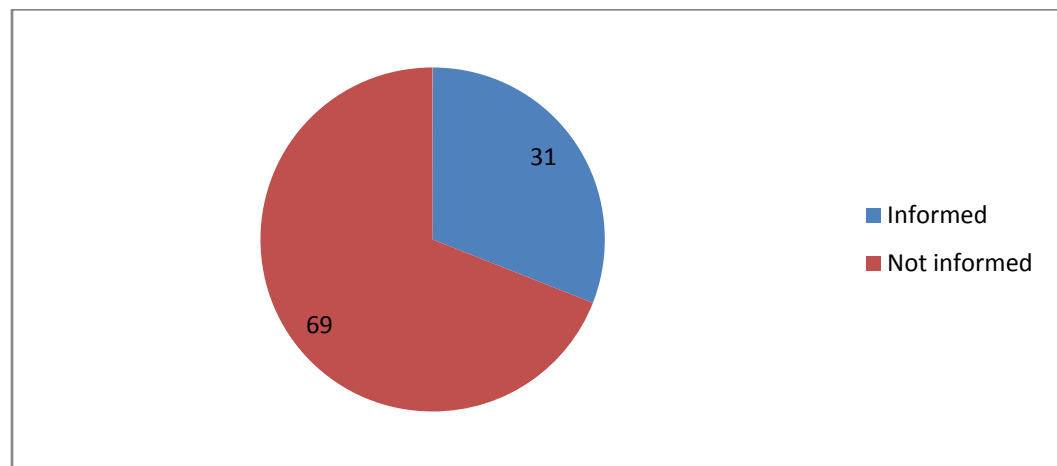
32 mothers who said that they know about post natal care were still asked what they know about post natal care. And 30 mothers replied post natal care means

regularly breast feeding the child, oiling the child and mothers hands should be washed. Only 2 percent of the mothers replied that the post natal care is to take care of children and the mothers herself.

4.10. Contribution of health workers for the awareness of PNC:

As we can interpret from the graph, 69 percent of the respondents said that they were never informed by any health worker regarding post natal care. According to them the ASHA/AWW mostly visit to them for immunization, especially for the immunization of children. ASHA is the basic point of contact between the beneficiaries and the health facility. ASHA plays a very important role in maternal and child health. Only one-third of the mother were informed or attended by the ASHAs.

Graph 6: Percent distribution of respondents who were made aware of PNC by health workers



Lack of motivation and awareness has resulted in behavior change of villagers towards health care.

4.11. Awareness about dangerous symptoms after delivery

Appropriate detection and management of dangerous sign can save the mothers. Only 24 percent of the mothers were aware of heavy bleeding (PPH) because most of the mothers are very young at their first birth as discussed earlier. Nearly one-fourth of the mothers knew about fever and another one-fourth knew about pain in abdomen as dangerous symptoms. Awareness regarding foul smell discharge is still less than the awareness about mastitis, both of them compose only 8 percent of mothers knowledge.

Table 6: Percent distribution of respondents by Awareness of dangerous symptoms of post natal period

Dangerous symptoms	Aware (valid percent)	Not Aware (valid percent)	Total
Heavy bleeding	24	76	100
Foul smell discharge	1	99	100
Mastitis	7	93	100
Fever	22	78	100
Pain in abdomen	24	76	100
Convulsions	11	89	100

4.12. Number and Timing of Postnatal care visits

Post natal care involves 3 to 4 postnatal visits..(1st within 24 hrs.2nd after 2 to 3days,3rd one after 6 to 7 days and last one at 6 weeks after delivery).These visits are require to check on bleeding, Preventing mastitis and other complications and providing counseling and range of option for family planning. Proportion of mother received complete postnatal care visits was very low (14 percent). As there were 77 percent of institutional delivery, so mothers receiving first post natal care which takes place within 24 hours were almost 80 percent but then for the second visit the which takes place immediately after 2-3 days, the percentage drops down to the one-fifth of the all mothers interviewed. The percentage of second visit followed by the third visit which takes place immediately after a week of last child birth still drops down to 21 percent of all mothers

Table 7: Percent distribution of respondents by Number and Timing of post natal visits attended

PNC visits	On time (Valid %)	Delayed (Valid %)	Didn't received (Valid %)	Not applicable (Valid %)	Total (Valid %)
First visit	80	1	19	0	100
Second visit	24	3	73	0	100
Third visit	21	11	56	12	100
Fourth visit	14	3	30	53	100

Interviewed. When fourth visit was analyzed which takes place immediately after 6 weeks, 53 percent mothers were found not applicable as the duration after last childbirth was less than 6 weeks. The percentages for delayed visits were very less for all visits except for the third visit where delayed visit percentage was up to 11 percent. The quality of the visits plays a very important role for validating all these visits which will really decide the actual number of quality visits which is discussed further in the report.

4.13. Actual first PNC visit received by mothers

According to WHO guidelines on post natal care, early visits are crucial because the majority of maternal and newborn deaths occur in the first week, especially on the first day, and this period is also the key time to promote healthy behaviours. If the mother is in a facility, she and her baby should be assessed within one hour of birth and again before discharge. Encouraging women to stay for 24 hours, especially after a complicated birth, should be considered. If birth occurs at home, the first visit should target the crucial first 24 hours after birth.

All the mothers who received the first PNC visit were asked whether they were checked/asked for the dangerous symptoms they might have after child birth before getting discharge from the hospital including first PNC visits which were done for mothers who delivered at home also. These dangerous symptoms were taken as indicator for assessing the status of actual PNC visit received. The study

of these indicators revealed that only 15 percent of the mothers who received the first PNC visit were checked/asked for heavy bleeding. There was neither even a single mother who knew anything about foul smell discharge nor they were checked/asked during first visit. Above all 22 percent of the mothers who received first PNC visit were asked/checked for pain in abdomen before they got discharge from the hospital and first PNC visit of the mothers who delivered at home. 19 percent mothers who are not applicable were those mothers who did not received the first post natal visit. Assuming if at least mother was checked for heavy bleeding before discharge as an indicator for actual PNC visit, then out of 81 percent mothers who received the first PNC visit, only 15 percent of the mothers received actual PNC visit. The study reveals that overall the utilization of actual PNC received is only 12 percent.

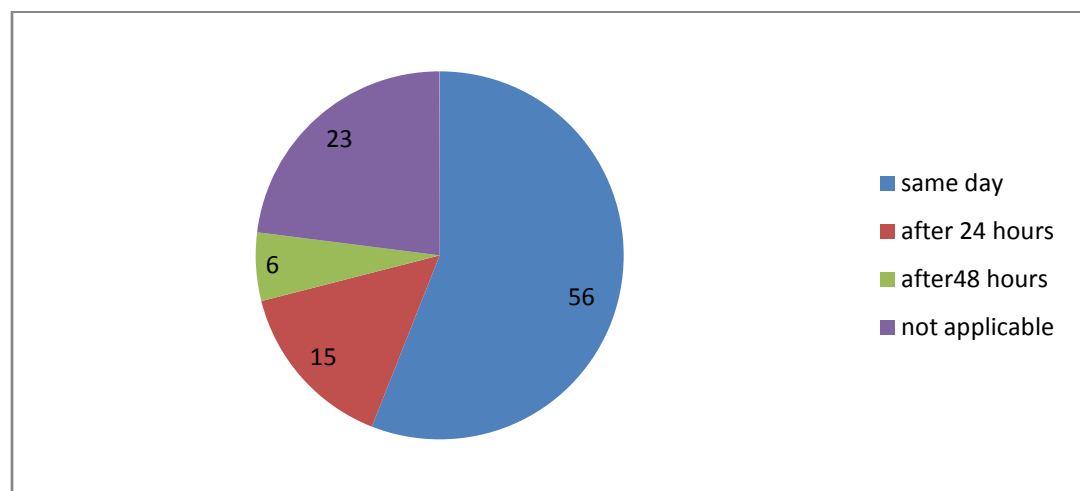
Table 8: Percent distribution of respondents by Quality of first visit of postnatal care received

Dangerous symptoms	Checked/asked (Frequency),N=81	Checked/ asked (valid %)	Not applicable (Valid %)
Heavy bleeding	12	15.0	19
Foul smell discharge	0	0	19
Mastitis	7	9.0	19
Fever	12	15.0	19
Pain in abdomen	18	22.0	19
Convulsions	5	7.0	19

4.14. Duration of stay in the hospital after delivery

The duration of the stay in the hospital after the child birth also determines the quality and validity of first post natal care visit. Most of the mothers (73 percent) of the mothers who were admitted in the hospital for facilitating their delivery were discharged on the same day of their admission which is against the laid norms of postnatal care. 19 percent of the mothers were discharged after 24 hours which was followed by 8 percent of the mothers who got discharge after 48 hours as they were suffering from complications like weakness, severe anemia and low birth babies. 23 percent mothers were not applicable for this analysis as their delivery took place at home.

Graph no.7: Percent distribution of respondents by Duration of stay in hospital after delivery



4.15. Tetanus Toxoid vaccination

Tetanus is an important cause of death among newborns in India. Two doses of tetanus toxoid given to pregnant women one month apart during early pregnancy are nearly 100% effective in preventing tetanus among newborns.

Table 9: Percent distribution of respondents by Tetanus Toxoid vaccination received during pregnancy

TT doses	Valid Percent
Received	
Single	13
Twice	49
Total	62
Not received	
Not even a single dose received	38

Neonatal tetanus is most common when the delivery takes place in unhygienic environment and non sterilized instruments are used for the cutting of umbilical cord. According to national immunization schedule, a pregnant woman should receive two doses of tetanus injections, the first when she is 16 weeks pregnant and another when she is 20 weeks. Reinoculation is recommended every three years. If the initial doses were received less than 3 years ago, a single booster injection is recommended. 49 percent births were to the mothers who had received two or more doses of TT vaccine, 13 percent were those who had received only

one dose and 38 were those who did not receive even a single dose. This shows that antenatal care services are more utilized than post natal care services.

4.16. Intention to use family planning in the future

Family planning allows couples to anticipate and attain their desired number of children and the spacing and timing of their births.

Table 10: Percent distribution of respondents by Intention to use family planning in the future

Planning for family planning	Frequency	Valid Percent
Yes	30	30.0
No	11	11.0
not yet decided	59	59.0
Total	100	100.0

All the currently married women at the time of interview were asked about their future intentions regarding the use of family planning. Overall 11 percent of currently married non users reported that they do not intend to use contraception in the future. 30 percent said they are already using at least one method of contraception. Among the 30 mothers who are already using any type of contraception, 30 percent of the mothers have undergone sterilization operation. Another 59 percent of all the mothers interviewed were unsure of their intentions.

But while interviewing mother we found that only half of mother aware of contraceptive facility provided by government.

4.17. Ever use of family planning method

All respondents who knew at least one method of family planning were asked whether they had ever used each of the method they knew. The use of the contraception was further probed by asking whether they ever used anything or tried in a way to delay or avoid getting pregnant.

Table 11: Percent distribution of respondents by Ever use of family planning method

Contraceptive measures	Frequency	Valid Percent
Condoms	16	16.0
IUDs	2	2.0
Oral Pills	11	11.0
Female Sterilization	9	9.0
None (not using modern interventions)	62	62.0
Total	100	100.0

Although more than 98 percent of the currently married women know of at least one modern method of contraception but only 38 percent of the women are using

modern methods. One-third of the mothers were using traditional methods. Whereas another 30 percent were those who were not so serious about it which in turn leads to unwanted pregnancies. 9 percent of the mothers have undergone female sterilization method to stop the conceptions. Male sterilization was not seen in the study sample. The pattern of use suggests very little switching among the modern temporary methods. 11 percent of the mothers have used oral pills which are followed by 2 percent of the mothers who were using IUDs at the time of interview.

4.18. Reasons for non use of contraception

Currently married women who are not using any contraceptive method and who say that they do not intend to use any contraception at any time in the future are asked the main reason they do not intend to use a method. 28 percent of the mothers say they do not intend to use contraception because they want more children either in general or because they want a child of specific sex, particularly a son. A small proportion of women (5 percent) reported that contraception is either against their religion or that they or their husbands are against the use of family planning. 2 percent of all the women do not intend to use family planning method due to ignorance from their husband on condom usage. The preferred family planning method is condoms among the couple.

4.19. Year gap between two conjugative children

Birth intervals are an important measure of the pace of child bearing. Past researches have shown that children born too close to a previous birth have an increased risk of dying especially if the interval between births is less than 24 months. A woman's ability to space and limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy,

Table 12: Percent distribution of respondents by Awareness of year gap between two conjugative children

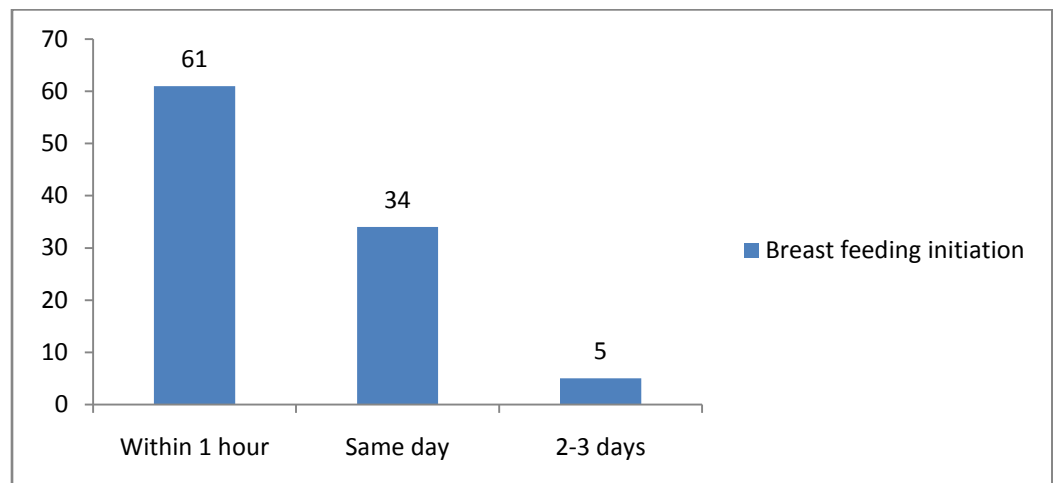
Birth interval	Frequency	Valid percent
2 years	18	18.0
3 years	30	30.0
More than 3 years	19	19.0
Don't Know	33	33.0
Total	100	100.0

so at least mother should know the minimum age gap between two consecutive children and she should maintain it. When the awareness of mothers regarding the birth interval was analyzed, the study revealed that only 30 percent of mothers knew exactly that the gap between two consecutive children should be at least for 3 years. One-third of the mothers were completely unaware of the spacing. Rest of the mothers was only probing for the answer and their responses were incorrect.

4.20. Breast feeding initiation

Risk of neonatal mortality increases according to the time of initiation of breast feeding. The study revealed that only 61 percent of mothers initiated breast feeding within one hour. Almost one-third of the mothers breast fed the baby after few hours of the child birth on the same day, among which more than half of the mothers didn't want to give colostrum to the newborn because they think it's harmful because of its different color and composition. Another 5 percent of mothers were those who breast fed the baby after 2-3 days, as for those mothers lactation started after 2-3 days that's why they were not able to breast feed them immediately after the child birth. They were given goat's milk till those days.

Graph 8: Percent distribution of respondents by Breast feeding initiation



4.21. Immunization of children

The immunization of children against six serious but preventable diseases namely tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles has been a cornerstone of child health care system in India. In order to accelerate implementation of the immunization scheme, the govt. of India started a special programme called Universal Immunization Programme (UIP) in 1985-86. Every mother was asked whether she had a vaccination card for the current baby. If card was available, the dates on which child received vaccinations against each disease were copied down carefully. When the mother could not produce vaccination card, she was asked how many vaccination is received by her baby within the duration immediately after child birth till now.

Table 13: Percent distribution of respondents by Immunization status of their children at birth

Vaccines	Received (Valid percent)	Not Received (Valid percent)	Total
BCG	73	27	100
OPV-0	63	37	100
Hepatitis B-0	31	69	100

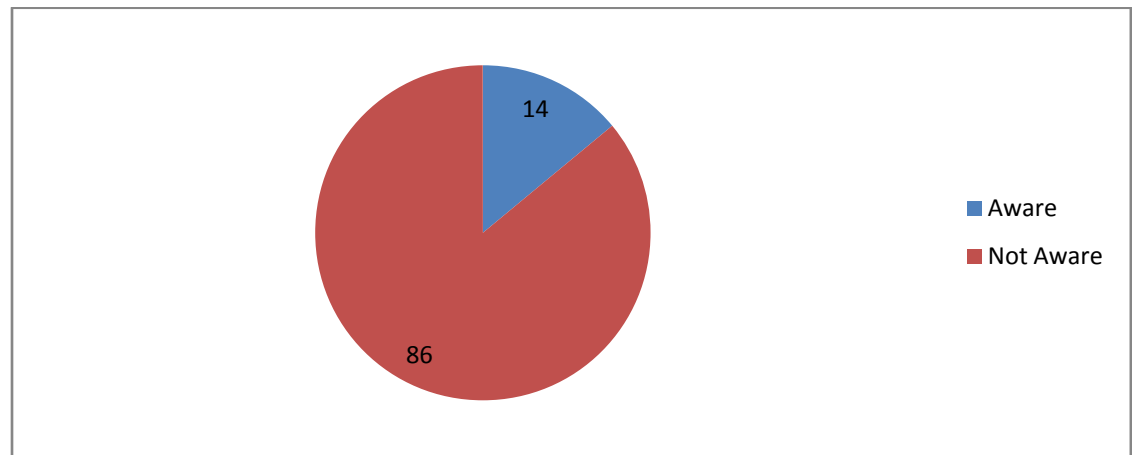
As only postnatal mothers within the duration of three months were interviewed, the information was collected only for required doses of BCG, OPV, DPT and HPV within the study age limit. And for getting the comparative results with

fewer errors, only the immunization at birth is taken into consideration. Table 2 presents the percentage of children age at their first week who received above mentioned vaccines before the interview. Based on the information recorded on cards or reported by mother, only 31 percent of the children were fully vaccinated within a week of the birth. Most (73 percent) of the newborn had received BCG vaccine where as only 63 percent of children received OPV-0 and merely 31 percent of children received HPV-0 within a week of their birth. Even 77 percent of the births took place at institution still only 31 percent of the children were immunized within a week of their birth. When mothers were interviewed further they revealed vaccines were not available at the facility at that time and since 73 percent of the mothers who delivered at facility were discharged on the same day, so the vaccination was missed by few of them as mentioned above.

4.22. Awareness about Kangaroo care

Kangaroo care plays a very important role in keeping the baby warm and calm. The baby is kept near to the chest of mother, on the bare area. Since Kangaroo care is also one of the important interventions during post natal care, so all mothers were interviewed for this also. The study revealed only 14 percent of the mothers was aware of Kangaroo care. Further these mothers were interviewed who said they know why baby is kept on chest. Among these 14 mothers, 11 mothers said that baby will drink milk early. And only 20 percent of mothers response were correct, to keep baby warm and mothers touch keeps baby intact and active.

Graph 9: Percent distribution of respondents by Awareness of Kangaroo care



Chapter 5

DISCUSSION OF FINDINGS

5.1. Assessment of the age at birth of mother towards utilization of postpartum care services.

The bivariate analysis revealed there is a relationship between the age at first birth of mothers and utilization of postpartum care services.

Table 14: Relationship between the age at birth and postpartum care services

Age at first conception	Utilization of PNC		Percentage receiving PNC
	Yes	No	

Age group			
15-19	16	30	35 %
20-24	14	38	23 %
Missing	2	0	
Total	32	68	

The cross tabulation reveals almost more than 35 percent of mothers conceiving first time in the age group 15-19, utilize post natal care services than conception at other age groups. This could be attributed to the fact that mothers at first birth are young and energetic, a factor that gives them the enthusiasm to use postpartum care services. And are open and more favorable to take any advice regarding the good health of her baby through which her attention also can be diverted to her health during the period. Results have further revealed a relationship between age of respondent at current birth and utilization of postpartum care services.

5.2. Mothers' education and its influence on utilization of postpartum services

Table 15: Relationship between mother's education and postpartum care services

Education status of	Utilization of PNC		Percentage receiving PNC
	Yes	No	
Mothers			
Uneducated	18	47	21 %
Educated	14	21	40 %

Total	32	68	
Husbands			
Uneducated	8	37	18 %
Educated	24	31	44 %
Total	32	68	

The bivariate analysis results have revealed that there is a relationship (influence) between mothers' education and utilization of postpartum care services. As the cross tabulation results shows that more number of educated (40 percent) mothers utilize post natal care services. The education levels of their husbands are also slightly more than them, thus it is also influencing the utilization of post natal care services by their wives. This implies that the higher the levels of education of the mothers, the higher the chances of them utilizing the postpartum care services. Accordingly, once a mother is educated, she will be knowledgeable enough to know the advantages of using postpartum services on to her health, a factor that will most likely instigate them to seek for such services. On the other hand, it can be argued that mothers who did not go to school cannot know the importance of postpartum services, and this will make them see no reason as to why they should seek for such services at all. Therefore, it is logical to conclude that the higher the educational levels of mothers, the higher the chances that they will use the postpartum services.

The findings above are in line with Matua's (2004) and Jewkes *et al's* (1998) theoretical findings that cited lack of adequate knowledge and information about

pregnancy, laboratory tests results and dangers of late bookings or not attending ANC at all, as contributors to the poor utilization of PNC services. They have further argued that the client's level of education influences pregnant women's utilization of the health facilities as well as the understanding of the importance of seeking health care promptly.

5.3. The relationship between place of delivery and utilization of postpartum care services

Table 16: Relationship between place of delivery and postpartum care services

Place of delivery	Utilization of PNC		Percentage receiving PNC
	Yes	No	
Home	4	19	17 %
Institutional	28	49	36 %
Total	32	68	

The bivariate analysis results have revealed that there is a relationship between received post natal services and the place of delivery. The study shows that mothers who delivered at institution are twice more active than home delivered mothers in utilizing post natal care services and are more knowledgeable than them. This can be argued that once an expectant mother is staying in a place that is far away from the health care services, there is high chance that she might not access or even utilize the services. 38 percent of the mothers who received TT

vaccination utilized post natal care services which is 20 percent more than those who didn't received TT vaccination.

5.4. The relationship between parity utilization of postpartum care services

Table 17: Relationship between the parity and postpartum care services

Place of delivery	Utilization of PNC		Percentage receiving PNC
	Yes	No	
First	9	24	27 %
Second	7	12	37 %
Third	7	12	37 %
Sixth	2	3	40 %

As parity increases the experience of mother of delivery increases. you can see that though the mother were aware of postnatal check up, the percentage of receiving post natal check up is very less compared to mothers were having less children. The table shows that with the first birth order of the mother, only 27 percent of those mothers utilize post natal care services, who are followed by the mothers (37 percent) who utilize post natal care services with birth order two. The percentage of the mothers (40 percent) utilizing post natal care services still increases more with birth order six. Thus the utilization of post natal care services increases with the higher birth orders. This can be contributed to the experience and interaction with health workers at every birth.

Chapter 6

6.1. CONCLUSION

Research findings have revealed that percentage of utilization of postnatal care services in the rural areas of Sitamarhi district in Bihar is only 12 percent. And the study also revealed that age at birth of mothers, mothers' education, place of delivery, attendance of ANC and parity all have a significant influence on the utilization of postpartum care services. It can therefore be deduced that expectant mothers mainly require sufficient knowledge about the use of postpartum services if they are to have healthy babies.

6.2. SCOPE OF THE STUDY

Some researchers should do study on the assessment of quality of Post natal care been provided by the health workers especially the efficiency of post natal care given by the front line workers.

6.2. SUGGESTIONS

The research study was aimed at assessing the level of utilization PNC services in Bihar. Consequently, the following recommendations were made.

1. The government should make sure that all mothers irrespective of their age are sensitized about the importance of utilization of postpartum care services.

2. The government should strengthen its initiatives to provide free education especially to girl child so as to reduce the numbers of illiterate women who do not seek for and do not utilize postpartum care services. This is because the study findings found a significant influence of levels of education and utilization of postpartum care services.
3. Since the study findings have found that the place of delivery influences utilization of postpartum care services, the government should ensure that health centers are extended nearer to the people especially in rural areas so as to be easily accessed by expectant mothers for easy utilization of postpartum care services.
4. An improvement is needed in terms of Post natal care provided by the health facilities

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Annexure 1: Questionnaire

Factors Determining the Utilization of Postnatal care

Beneficiary information

Respondent: women who delivered in last 3 months within the age group (15-49 years)

1.1. Name of block

1.2. Name of village/ward

1.3. Household no. (Kitchen wise)

1.4. Type of house

☐

Kaccha

☐

Semi Pucca

☐

Pucca

1.5. What is the religion of household head?

Others Hindu Muslim Sikh Christian

1.6. What is the caste category of household head ?

☐ General ☐ OBC ☐ S.T ☐ S.C ☐

Others

1.7. What is the sub caste of household head ?

1.8. B.P.L ☐ Yes ☐ No

1.9. Total annual household income (in Rupees)

2.1. Name of the Respondent

2.2. How old were you at your last birthday (in Completed years)

2.3. How old were you when you (first) got married?

2.4. How many conceptions she has?

☐ 1 ☐ 2 ☐ 3 ☐ More than 3

2.5. How many alive sons you have?

2.6. How many alive daughters you have?

2.7. What was age at your first conception?Years

2.8. What is your occupation?
.....

2.9. Current marital status?

☐ Currently Married ☐ Widowed ☐ Divorced/Separated
☐ Never Married

3.1. Education Status of the Respondent?

☐ Uneducated ☐ Primary ☐ Middle
Secondary ☐ Higher Secondary ☐ Graduation

3.2. Education Status of her Husband?

☐ Uneducated ☐ Primary ☐ Middle
☐ Secondary ☐ Higher Secondary ☐ Graduation

4. What was the outcome of last pregnancy?

☐ Abortion ☐ Stillbirth ☐ Live
 birth

5. What is the birth order of your current baby?

6.1. Where did, your last delivery was facilitated?

☐ Home ☐ S Govt. fac ☐ HC
 Private facility

6.2. Who conducted the last delivery?

☐ TBA ☐ ANM ☐ Nurse ☐ Doctor ☐ others,
 specify.....

7. Skip to 8, if home delivery

In case of institutional delivery, what type of transport facility you took to reach the facility?

☐ Private transport ☐ Public transp Govt. ambu ☐ e
 others

8. How far is the Level 1 facility from your residence?minutes

9. What type of delivery you had?

☐ Normal ☐ Normal with Episiotomy ☐ ceps
 Caesarian section

10. When were you discharged from the hospital?

☐ Same day ☐ After 24 hours ☐ After
 48 hours

11. 1. Do you know about PNC? ☐ Yes ☐ No

11. 2. If yes, what all you know about it?

.....
 .

☐ Doctor ☐ Nurse ☐ ASHA ☐ ANM ☐ others ☐ None

☐ Doctor ☐ Nurse ☐ Assistant ☐ Other

12.2.A. First visit (within 24 hours)		yes	no
delayed			

12.2.B. Second visit (after 2 to 3 days)		yes	no
delayed			

12.2.C. Third visit (after 6 to 7 days)		yes	no
delayed			

12.2.D. Fourth visit (after 6 weeks)		yes	no
delayed			

Were you asked for the following?

☐ Excessive bleeding ☐ Foul smell discharge ☐ Malignant
☐ Fever ☐ Pain in abdomen ☐ Convulsions

13.1. Do you know about the dangerous symptoms? ☐ Yes ☐ No

13.2. If yes what are the dangerous symptoms you know?

☐ Heavy bleeding ☐ Foul smell discharge ☐ Ma
Fever

☐ Pain in abdomen ☐ Convulsions ☐ None

14.1. Did you had any complications immediately during/after chil[]h? ☐
Yes No

14.2. If yes for 14.1, then ask, were you treated?

☐ Yes ☐ No ☐ Not
applicable

14.2. If yes, what type of complication you had?

.....
.....

15.1. Did you have excessive bleeding after the delivery? ☐ Yes ☐
No

15.2. Have you utilized blood transfusion facility in case of Excessive bleeding?

☐ Yes ☐ No ☐ Not
applicable

16.1. Are you registered in J.S.Y scheme?

☐ Yes ☐ No ☐ Not applicable

16.2. Have you received incentives for institutional delivery?

☐ Yes ☐ No ☐ Not applicable

17.1. Were you immunized by TT vaccine during last pregnancy?

☐ Yes ☐ No

17.2. If no for 17.1, Skip to 18.1

How many TT vaccines you had?

☐ 1 ☐ 2 ☐ More than 2

18.1. Have you planned for family planning?

☐ Yes ☐ No ☐ Not yet decided

18.2. If no for 18.1, then ask why not?

.....
.....

18.3. Have you/your husband ever used a contraceptive method for family planning?

☐ Condoms ☐ IUDs ☐ Oral pills ☐ Sterilization operation, specify.....

☐ None ☐ others

18.4. Do you know how much spacing should be there between two consecutive children?

☐ 1 year ☐ 2 years ☐ 3 years ☐ More than 3 years
☐ No

19.1. When did you initiate breast feeding after child birth?

☐ Within 1 hour ☐ Same day ☐ 2-3 day ☐ Never

19. 2. How long should be a baby breast fed?

☐ Less than 6 months ☐ Exactly 6 months ☐ More than 6 months

19.3. Do you know about Kangaroo care?

☐ Yes ☐ No

19.4. If yes for 19.3, then ask what it is?

.....
.....

19.5. Age of the current baby (in weeks)?

19.6. Was your current baby immunized with? (Multiple response)

☐ BCG ☐ OPV-0 ☐ OPV-1 ☐ OPV-2 ☐ HPV-0
☐ HPV-1 ☐ HPV -2 ☐ DPT-1 ☐ DPT-2

☐☐

19.7. Did your child have any complication immediate after birth? Yes
No

19.8. If yes, please specify.....

19.9. Was your child treated?

applicable ☐ Yes ☐ No ☐ Not

20. Skip in case of home delivery,

In case of institutional delivery, were you satisfied with the service you availed after child birth?
☐ Good ☐ Satisfactory ☐ Poor

21. Is there anything you want to ask us regarding it?

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22. At last, ask the respondent how can be utilization of PNC improved?

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