Facility Survey of the Delivery Points in Singrauli District of Madhya Pradesh

By

Pragati Gurjar

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2015-2017

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Pragati Gurjar** student of **MBA Hospital and Health Management** from The IIHMR University, Jaipur has undergone internship training at National Health Mission, Madhya Pradesh from **February 6th, 2017 to May 5th, 2017**.

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

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Dr. Ashok Kaushik
Dean - Academics and Student Affairs
The IIHMR University, Jaipur

Dr. (Brig) S. K. Puri
Advisor
The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

NATIONAL HEALTH MISSION

CHIEF MEDICAL AND HEALTH OFFICE

SINGRAULI (MADHYA PRADESH)

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Pragati Gurjar student of MBA Hospital and Health Management batch 2015-2017 of IIHMR UNIVERSITY, Jaipur posted as Maternal and Child Health Consultant in Singrauli district, Madhya Pradesh has successfully completed dissertation during the period of three months(6th February 2017 to 6th March 2017) on topic " facility survey of delivery points in Singrauli district of Madhya Pradesh ".

During this period she has shown good conduct and would be a great asset to the organization ,we wish her all the success in her future endeavors.

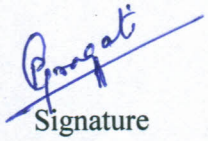
Mr. Sudhanshu Mishra

DPM Singrauli

Madhya Pradesh

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Facility Survey of Delivery Points in Singrauli District of Madhya Pradesh** and submitted by Dr.Pragati Gurjar, Enrollment No. IIHMR-U/01/2015-17/0318 under the supervision of Dr. (Brig) S.K. Puri for award of MBA in Hospital and Health Management of the University carried out during the period from 6 February 2017 to 5 May 2017 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

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that all ethical issues have been considered while collecting data for my dissertation titled "Facility Survey of Delivery Points in Singrauli district of Madhya Pradesh".

Signature of student

ACKNOWLEDGEMENT

The internship was started with a vision to be able to learn about the practical aspects of health care delivery system in a detailed manner.I hereby take this opportunity to express my deep sense of gratitude to all those who have been instrumental in the successful completion of my internship.

I take immense pleasure to thank IIHMR University and all its members for providing a platform to gain knowledge and acquire skills in various aspects of health care management.

I express my deepest regards and gratitude towards my mentor Brig. Dr. S K Puri for his support and suggestions and providing me his time and guidance inspite of his busy schedule.

Special thanks to our project coordinator Dr.Archana Mishra(DD Maternal Health)for having faith in me,and providing an opportunity to work with NHM MP.Without her support and guidance the completion of my project would not have been possible.I would also like to thank Dr Rajesh Shrivastava(CMHO,Singrauli) and Mr.Sudhanshu Mishra (DPM),without their support the successful completion of my project was a distant reality.

Last but not the least I am grateful to my parents,family,friends, colleagues for their blessings,their unwavering faith in me and being an endless source of support and inspiration.

(PRAGATI GURJAR)

Abbreviations:

BEmOC: Basic Emergency Obstetric Care

BMWM: Bio Medical Waste Management

CEmOC: Comprehensive Emergency Obstetric Care

CHC: Community Health Centre

CMHO: Chief Medical and Health Officer

DH: District Hospital

DP: Delivery Point

FRU: First Referral Unit

MCH: Maternal and Child Health

MNH: Maternal and Newborn Health

NBCC: New Born Care Corner

PHC: Primary Health Centre

PNC: Post Natal Care

RBSK: Rashtriya Bal Suraksha Karyakram

SBA: Skilled Birth Attendant

SHC: Sub-district Health Centre

SNCU: Special Newborn Care Unit

WHO: World Health Organization

1. Introduction

The Government of India is dedicated and focused on reducing maternal and newborn mortality in the country. Considerable efforts have been made to achieve this goal through a number of initiatives, one of them being Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A) strategic approach implementation. Also, India has made significant improvements in the rate of institutional deliveries in the country (owing to initiatives like Janani Suraksha Yojna) with a vision to ensure access to evidence based practices at the time of childbirth. Despite these efforts and increased numbers in institutional deliveries, the goal of achieving desired reduction in maternal and newborn mortality in the country is difficult to be realised in absence of high-quality of intra-partum and immediate postpartum care at institutions.

The National Health Mission has made it broadly known that improving quality of care at the time of childbirth and considering mothers and newborn as a dyad for focus of intervention during the said period have the potential to save a majority of maternal and newborn lives. To ensure that the services are available and provided as per the standards, checklists have been prepared, including protocols and practices followed in the labor room, New Born Care Corner (NBCC), Maternity Ward, knowledge, training and practices followed by the staff posted in the respective departments. These checklists are to be used and filled by the monitoring staff, including MCH consultants, Nursing Mentors, RBSK coordinators during their visits of these facilities as their role is to provide supportive supervision to all the staff and departments.

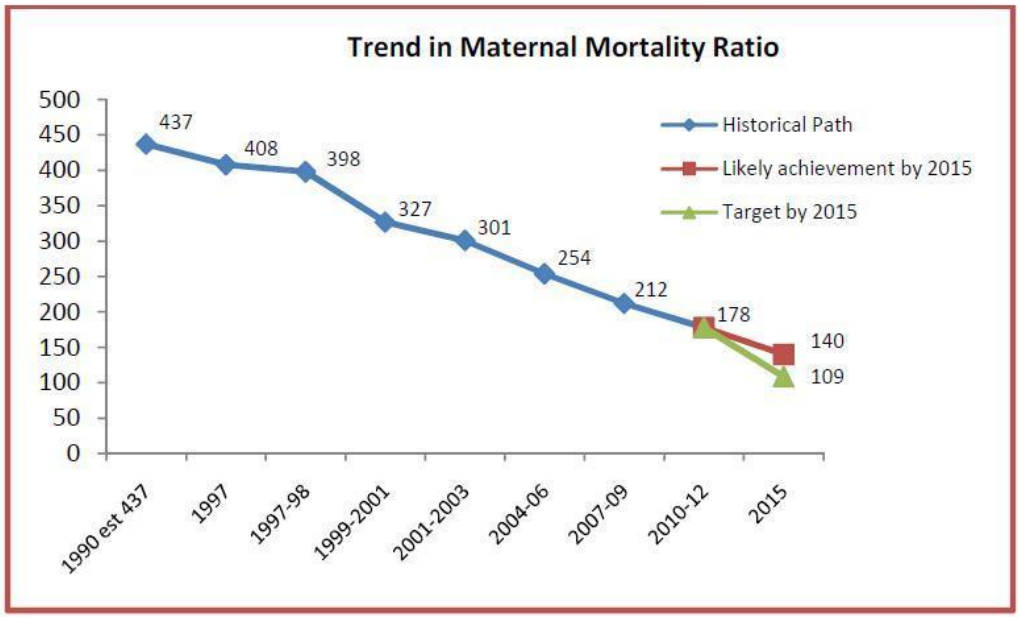
Gap analysis was conducted at the delivery points in Singrauli, which is one of the 17 High Priority Districts of Madhya Pradesh, to provide information for prioritizing the interventions so as to meet the objectives of reducing maternal and child deaths. This baseline data can also be used for setting targets and strategies by the district administration. More specifically, the analysis was aimed at measuring the gaps in resource availability and utilization (infrastructure, equipments, trained human resource, and drugs), strategies for behaviour change at block level to ensure utilization, timeliness, continuity and quality implementation of essential interventions.

This document highlights the results of gap analysis and provides planners and program managers with adequate information and evidence to initiate and strengthen district level health planning to address the deficiencies and strengthen the health system.

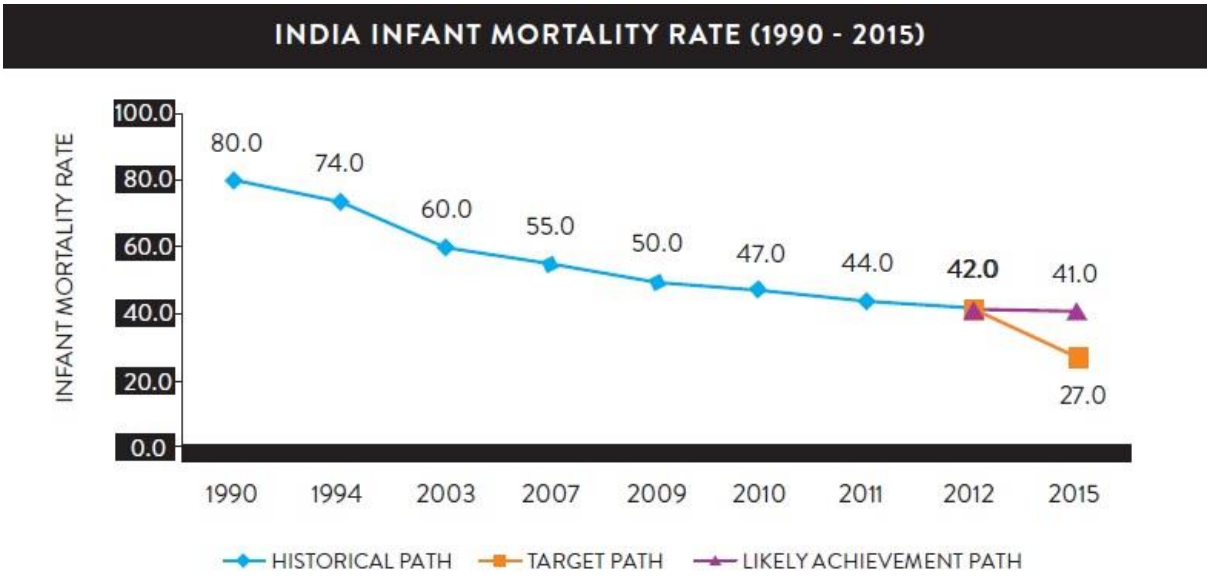
2. Literature Review:

Each year in India, roughly 30 million women experience pregnancy and 28 million result in a live birth. Of these, an estimated 69,000 maternal deaths and one million newborn deaths occur each year. In addition, millions more women and newborn suffer pregnancy and birth related ill-health. Thus, pregnancy-related mortality and morbidity continues to have a huge impact on the lives of Indian women and their newborn.

The maternal mortality ratio is the number of women who die from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100,000 live births.

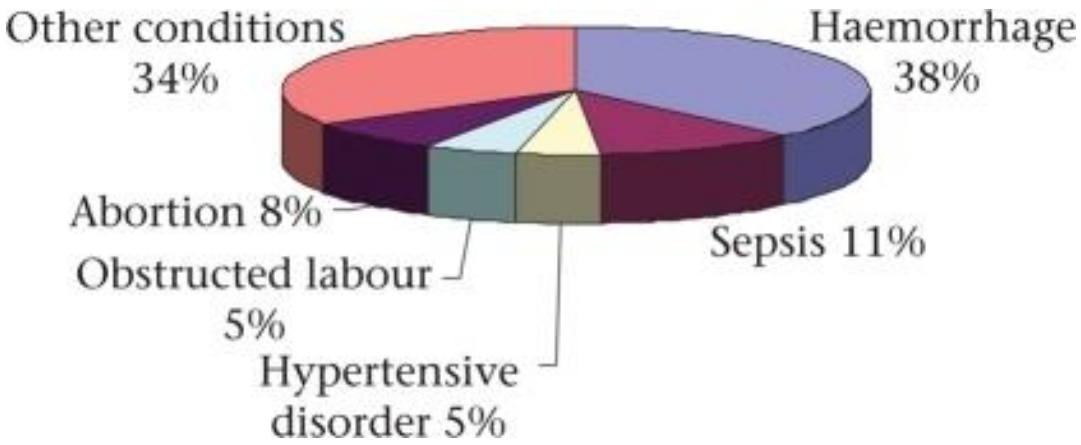


Source: Sample Registration System, Office of Registrar General of India



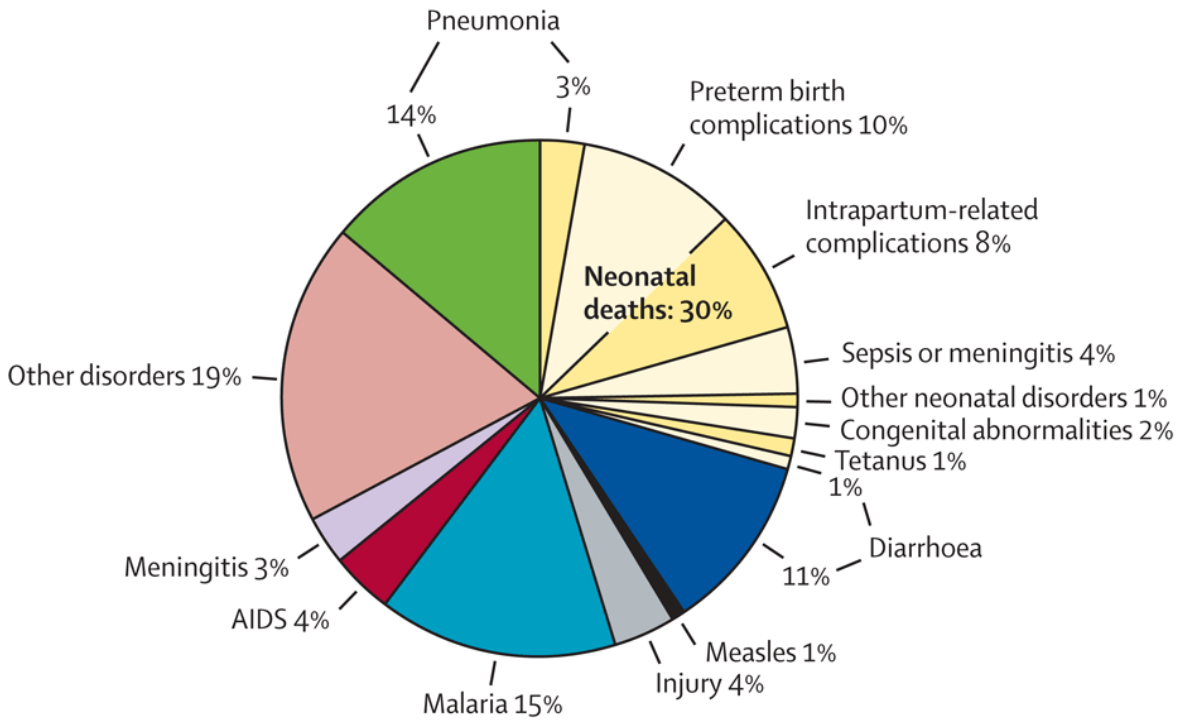
Source: Office of the Registrar General & Census Commissioner, India

Causes of Maternal Mortality in India



Source: RGI (1197-2003)

Causes of Infant Mortality



Source: WHO

As is evident from the data, majority of the maternal and newborn deaths are occurring either during pregnancy or within 48 hours of delivery. This is the time period when the pregnant woman and later both the mother and the newborn are at the health facility. Despite this fact, their deaths are happening which indicates that there is either non-availability of services or non-utilization of the available services.

Public health facilities such as the District Hospital (DH)/Sub-district Hospital (SDH)/Community Health Centre (CHC)/Primary Health Centre (PHC)/Sub-district Health Centre (SHC) are categorized depending on the levels (1, 2 and 3) of maternal and child health care and service delivery. Among these levels, some have been categorized as delivery points based on their performance and case load.

MCH Centres:

Level 3 – (Comprehensive Level-FRU): All FRU-CHC/SDH/DH/area hospitals/ referral hospitals/tertiary hospitals where complications are managed including C-section and blood transfusion. An FRU shall be equipped also with a Newborn Stabilization Unit (NBSU) at CHC/SDH/others or Special Newborn Care Unit (SNCU) at DH and above. A District Hospital irrespective of caseload has to be a Level 3 institution.

Level 2 – (Basic Level): All 24x7 facilities (PHC/Non-FRU CHC/others) providing BEmOC services; conducting deliveries and managing of medical complications (not requiring surgery or blood transfusion) and have either a NBCC or NBSU.

Level 1 – All sub-centres and some PHCs which have not yet reached the next level of 24x7 PHC: where deliveries are conducted by a skilled-birth attendant (SBA). An NBCC must be established in all such facilities.

Delivery points: Provision of service for delivery in a facility generally serves as an important indicator to assess whether the facility is operational or not. The concept of delivery point emerges from this presumption. Among the facilities, designated as L1, L2 and L3 there are some facilities which are conducting deliveries above a minimum benchmark. These facilities are designated as Delivery Points According to Government of India (GoI) mandate; these functional facilities should be the first to be strengthened for providing comprehensive reproductive maternal newborn and child health (RMNCH) services. Benchmarks for each level of facility are based on actual average number of deliveries being conducted per month.

A gap identification and analysis was done at various delivery points in Singrauli district of Madhya Pradesh in order to prioritize the activities required to fill these gaps and thus improving maternal and newborn health in the long run.

Research Problem :

Singrauli, being one of the high priority districts, belongs to Rewa division of Madhya Pradesh has institutional delivery rate fifty two per cent and delivery by skilled personnel have increased up to seventy one per cent(AHS 2012-13),but still IMR-72,NNMR-54,U5MR-118(AHS 2010-11) and MMR of Rewa division is 336 (NFHS 2012-13)which is unacceptably high. That means despite of progress in institutional delivery and deliveries by professional personnel MMR, IMR have not reduced as expected. From this data we can say that women are coming to institutions but the quality of service is low. Poor infrastructure, inadequate equipment and drugs availability, unavailability of adequate skilled human resource leads to poor quality of service

3. Research Question:

Are the required inputs like essential equipments, skilled human resource, infrastructure and drugs available in the labor rooms of the delivery points in Singrauli district of Madhya Pradesh as per the checklists in MNH toolkit?

4. Research Objective:

Specific Objective: To find out the gaps in the availability and utilization of the required inputs, including trained manpower, infrastructure, equipment and drugs at the delivery points in Singrauli.

General Objective: Establishing a baseline for monitoring the progress of MCH services, that can further be used for setting targets and strategies by the district administration.

5)Methodology:

Observational Study

Type of study: Descriptive cross sectional study was conducted to assess inputs (infrastructure, equipments, drugs and trained personnel) in the labor rooms of Delivery points in Singrauli district of Madhya Pradesh in the duration of 3 months, from February 2107 to April 2017.

Data for the study was collected during the months of February, March and April 2017 by the researcher in Singrauli district of Madhya Pradesh to find out the current situation of labor rooms at the delivery points. The primary data was collected from the institutions with the help of checklist provided in the MNH Toolkit which contain the information regarding the RMNCH+A services. The checklist was filled by direct observation, remarks were noted and quality aspects were explored by interaction with respondents.

Number of institutions covered: 6

DH: 1 (Singrauli)

CHCs (Chitrangi, Khutar, Niwas, Sarai, Berdah)

Sample Selection: Convenience Sampling of all CHCs.

The only DH was included.

Data Collection Methods:

Primary data was collected by observing available staff in labor room, physical verification of availability and functioning of required infrastructure, drugs and equipments in the labor room. Primary data was collected with the help of checklists provided in the MNH Toolkit as well as the standard assessment lists which have been designed for the use by Monitoring Personnel and the Supportive Supervisors. The checklists were filled either by direct observation or by asking the concerned staff on duty about the listed services or equipment.

6)General Profile of Singrauli District:

Singrauli is the 50th district of the state of Madhya Pradesh. It was granted district status on May 24, 2008. Its headquarter is situated at Waidhan. Jayant is the most watched out place in the area with all the amenities of life. It has been formed after disintegrating it from Sidhi district.It was formed by separating three tehsils of the erstwhile Sidhi district: Singrauli, Deosar and Chitrangi. Singrauli is fast emerging as an energy hub of India , especially for electric power and coal and therefore locally it is also called urjanchal (a Hindi word which means land of energy). The total installed capacity of all power plants at Singaruli is around ten percent of total installed capacity of India.

Geography :- Singrauli district covers an area of 5,672 square kilometres (2,190 sq mi).

Divisions :- Singrauli district comprises five tehsils, namely, Singrauli, Deosar, Chitrangi, Mada and Sarai. There are three Madhya Pradesh Vidhan Sabha constituencies in this district, namely, Chitrangi, Singrauli and Deosar. All of these are part of Sidhi Lok Sabha constituency

Table 1: Demographic Profile – District Singrauli (MP)

Indicator	State	District
Total Population (census 2011)	72,597,565	1,178,132
Urban Population	20,059,666	226828
Rural Population	52,537,899	951304
Male Population	37,612,306	614885
Female Population	35,014,503	563247
Crude Birth Rate (AHS- 2012-2013)	24.5	26.1
Crude Death Rate (AHS- 2012-2013)	7.7	7.8
Sex Ratio (census 2011)	931	916
Child Sex Ratio (census 2011)	943	921
Total Literacy Rate (%) (census 2011)	69.32	62.36

Table 2: Major Indicators (AHS- 2012-2013)

SN	Indicator	State	District
1	Maternal Mortality Ratio	227	336 (RewaDivision)
2	Neonatal Mortality Rate	42	54
3	Infant Mortality Rate	62	72
4	U5MR	83	118
5	Total Fertility Rate	2.9	3.2

Results and Findings

7) Labor Room

7.1 Infrastructure

	Separate Labor Room	7 Trays Available	Functional Kelly's Pad	BMWM	Privacy	16 Protocols	Functional NBCC
Niwas	Yes	Yes	No	Yes	Yes	No	Yes
Sarai	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chitrangi	Yes	No	No	No	Yes	No	Yes
Khutar	Yes	Yes	No	No	No	No	No
Berdah	Yes	Yes	No	No	No	No	No
DH Waidhan	Yes	Yes	Yes	Yes	Yes	No	Yes

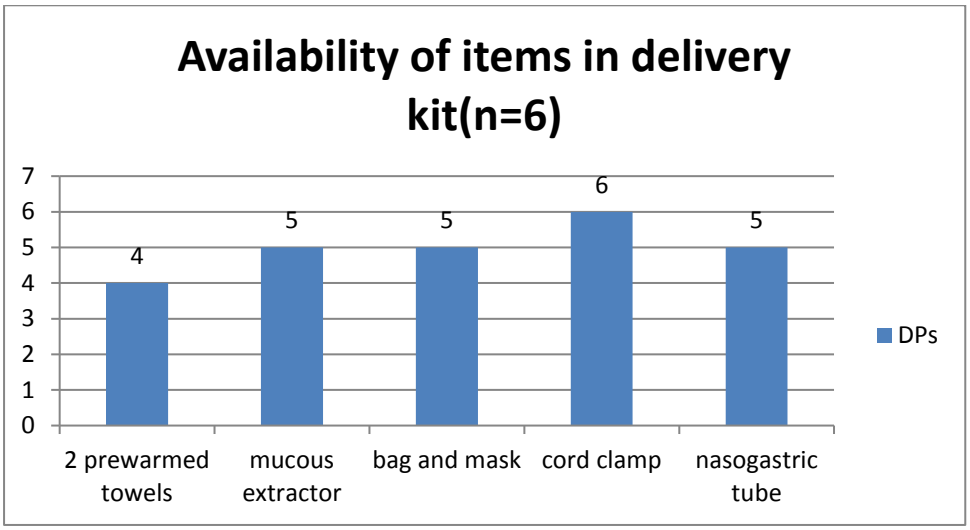
7.2 Practices

	Partograph	**AMTSL**	**Initiating Early Breast Feeding**	**Inj. Vit K1**	**0 Day Immunization**
Niwas	No	Yes	Yes	Yes	Yes
Sarai	Yes	Yes	Yes	Yes	Yes
Chitrangi	No	Yes	Yes	Yes	Yes
Khutar	No	No	Yes	Yes	Yes
Berdah	Yes		Yes	Yes	Yes
DH Waidhan	Yes	Yes	Yes	Yes	Yes

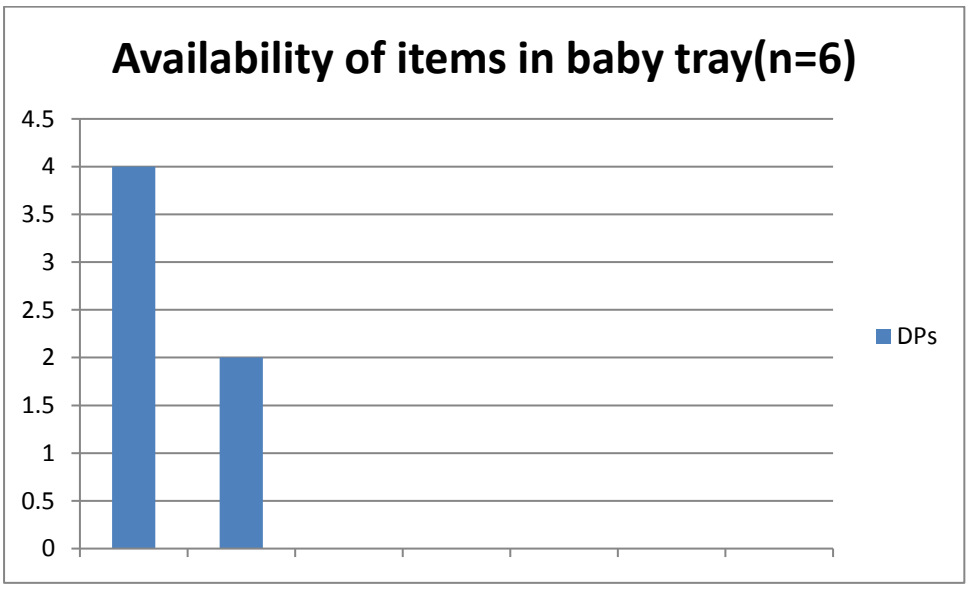
7.3 Equipment

	Autoclave	Delivery Kit
Niwas	No	No
Sarai	No	Yes
Chitrangi	No	No
Khutar	No	Yes
Berdah	No	No
DH Waidhan	No	No

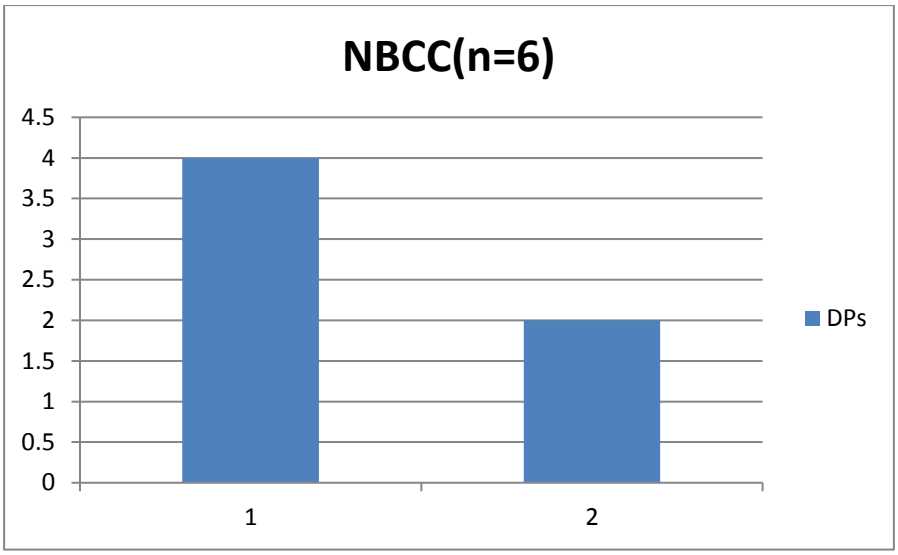
7.4 Delivery kit



7.5 Baby Tray

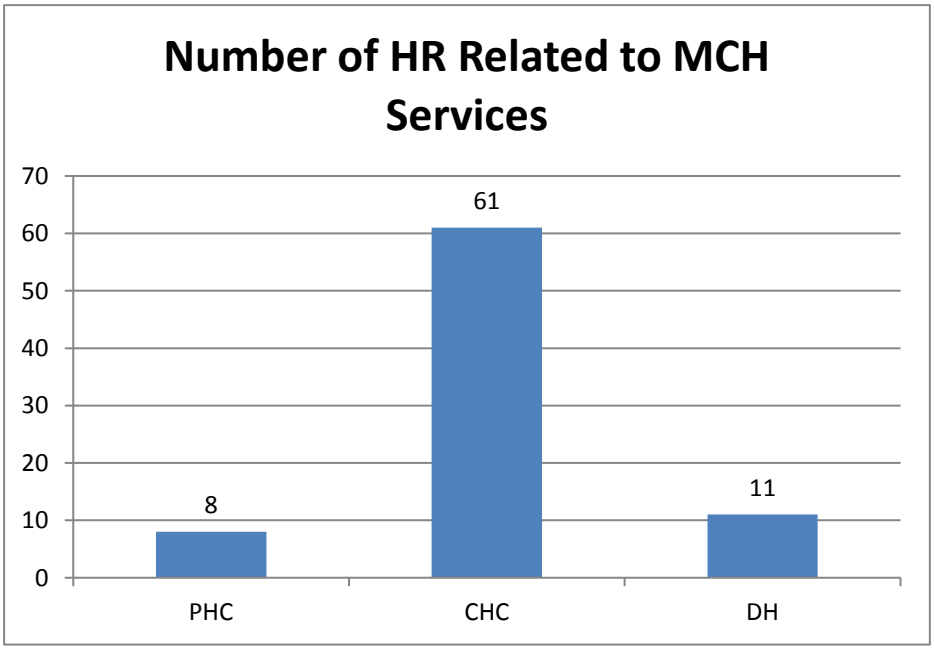


8) New Born Care Corner



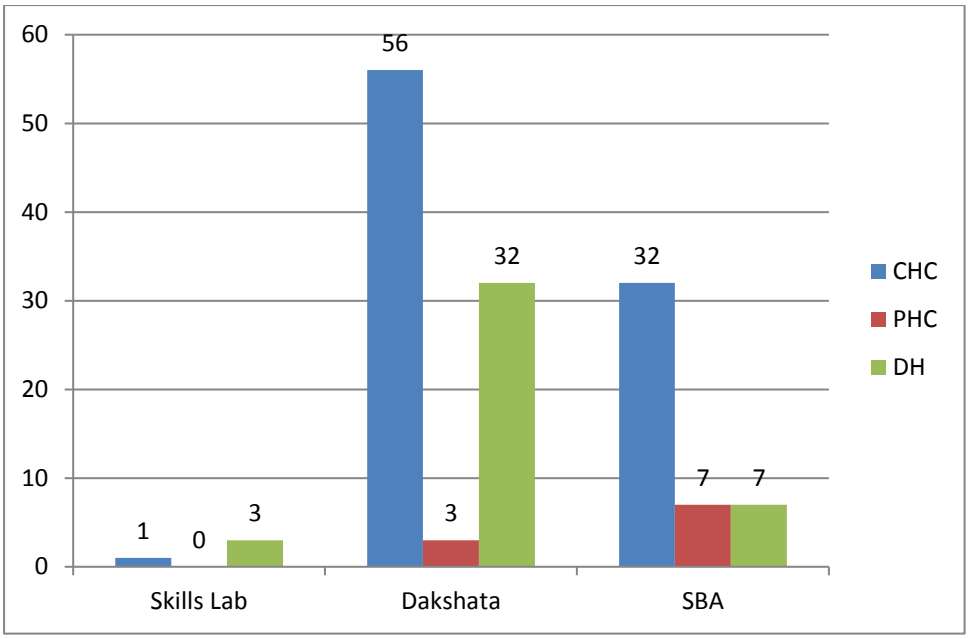
9) Human Resource

Number of Existing HR Related to MCH Services



10) Training

Training Status of HR Related to MCH Services:



Discussion:

As is seen from the data collected and presented in the form of graphs, the outcome of pregnancy is positive (i.e. safe delivery of a healthy newborn and a healthy mother) when there are all the inputs as per the standard guidelines, including infrastructure, equipment, drugs, trained staff and following of standard procedures.

Filling of the partograph is important to recognise the danger signs, if any, in the pregnant women. Therefore, it is of great importance that all the staff is well trained and experienced in filling the partograph accurately. This would help in timely detection of danger signs and thus timely initiation of corrective measures to be taken.

A functional radiant warmer is necessary, without fail, to ensure the management of any newborn who has either respiratory distress/ birth asphyxia or is of low birth weight. Such newborns need essential newborn care which cannot be provided at the labor table or in the mother's lap. The radiant warmer is necessary to prevent hypothermia in the newborn and also if the newborn requires resuscitation.

For the purpose of new born resuscitation, a functional ambu bag with masks of sizes 0 and 1 should always be available at the radiant warmer. Also, it is imperative that the staff posted in the labor room is trained to use it effectively on the newborn.

The training of the staff posted in the labor room is also of paramount importance, because if the staff is not knowledgeable about the standard protocols and procedures to be followed, mistakes are bound to happen which may turn out to be harmful to the woman and her child.

Sterilization and Bio Medical Waste Management are also of great importance in order to control infection, both to the mother and the newborn. Proper sterilization of all the instruments used during delivery and resuscitation, if required, is mandatory to prevent infection. Also, all the soiled material should be disposed off as per the BMWM protocols, so that it can be sent to the processing effectively.

All the above mentioned points are a part of the checklists which are used during the monitoring and supervision visits to the delivery points. They are, no doubt, of great importance during and after the delivery so that a positive outcome is got from the woman's pregnancy and in the long run, to reduce Maternal Mortality and Neonatal Mortality.

Conclusion:

As is evident from the study, the load of Maternal Deaths and Neonatal Deaths can be reduced to a large extent if all the protocols regarding infrastructure, equipment and drugs, trained Human resource are followed as per the guidelines and standards. Also the procedures which are to be followed in the labor room as well as during PNC are to be as per the standards. All these factors combined, along with a positive supportive supervision and good communication at all levels (block-district-state) in order to converse and fill the gaps, are the key to deliver satisfactory services to pregnant women. Only planning and initiating programs once is not the way to meet the goals or objectives of any programme. For this, regular monitoring and supervision is required, starting right from the ground level up to the highest administrative level. Only then will the gaps be identified in time, and corrective measures planned and appropriate action taken.

Around 70 percent of maternal deaths can be prevented by small interventions which required availability and functionality of adequate essential equipments, drugs, skilled human resource, and infrastructure (WHO 2014).