



Facility Survey of Delivery Points in Singrauli District Of Madhya Pradesh

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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
- 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.
- 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.
- 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.

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

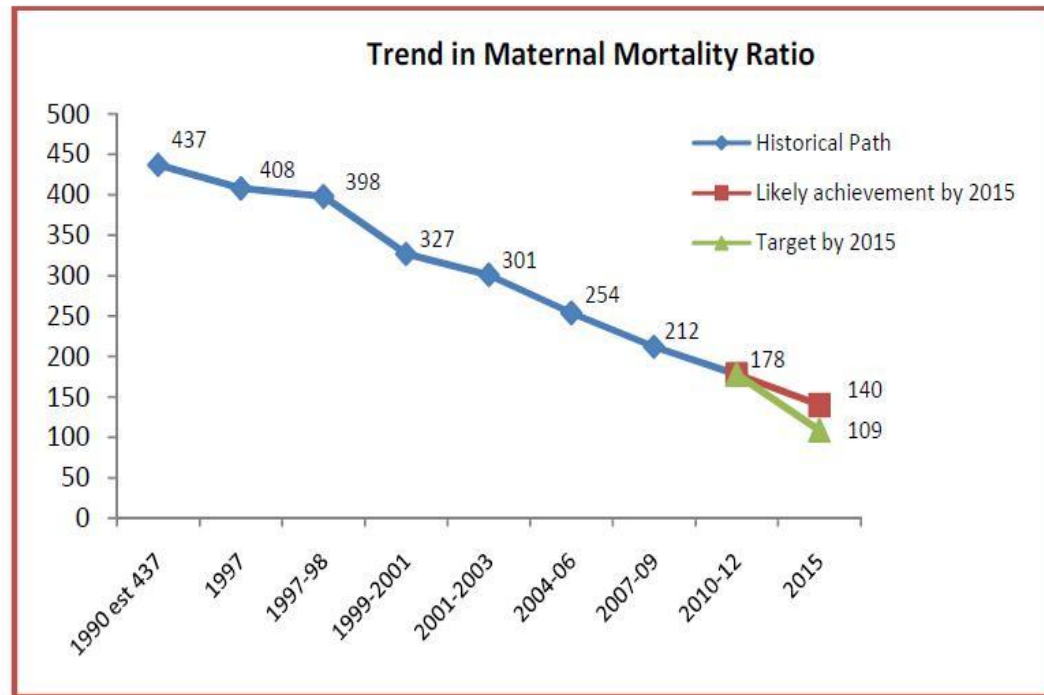
Indicator	State	District
Sex Ratio (census 2011)	931	916
Child Sex Ratio (census 2011)	943	921
Total Literacy Rate (%) (census 2011)	69.32	62.36

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

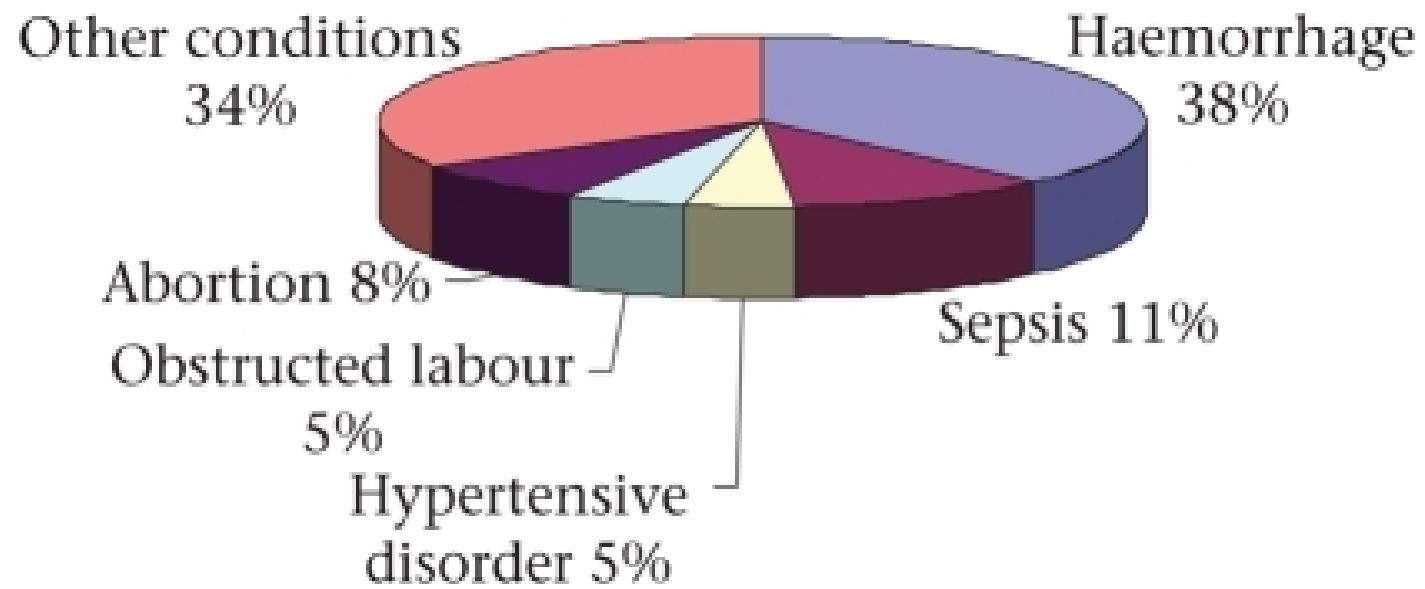
Literature Review

Each year in India, roughly 30 million women experience pregnancy and 28 million have 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.



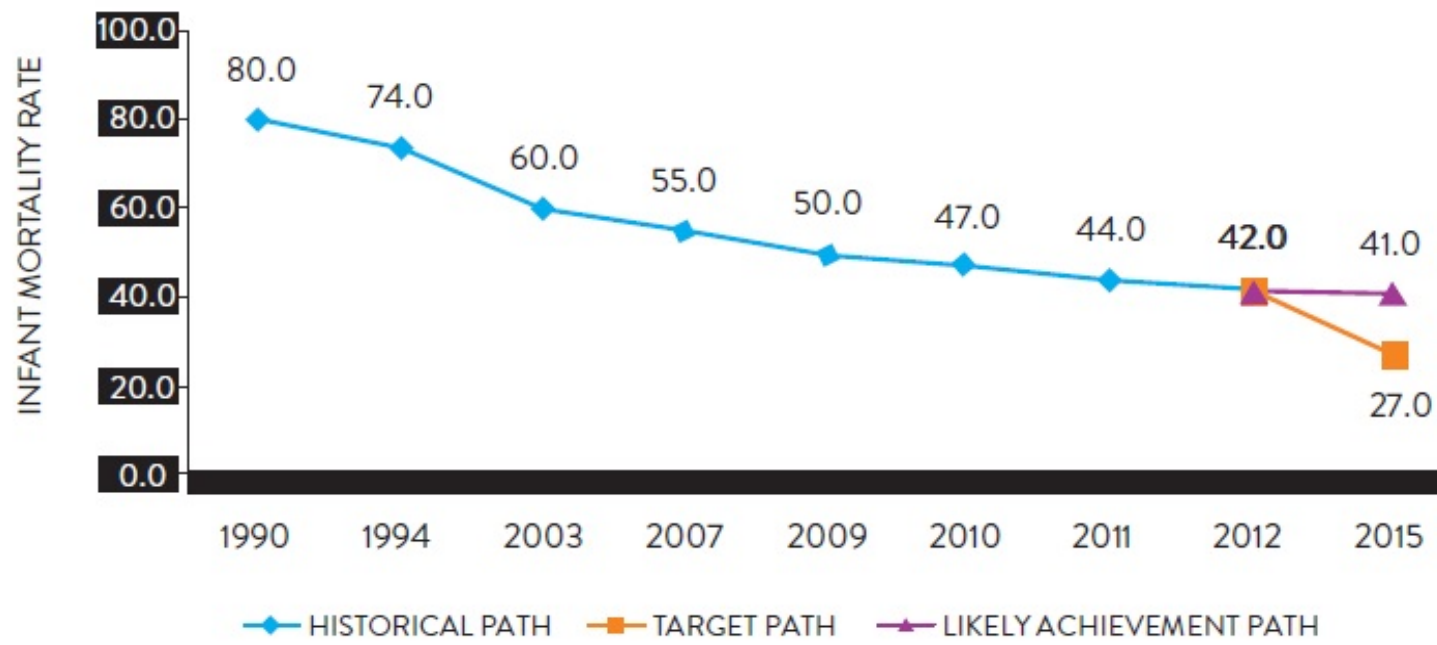
Source: Sample Registration System, Office of Registrar General of India

Causes of Maternal Mortality in India



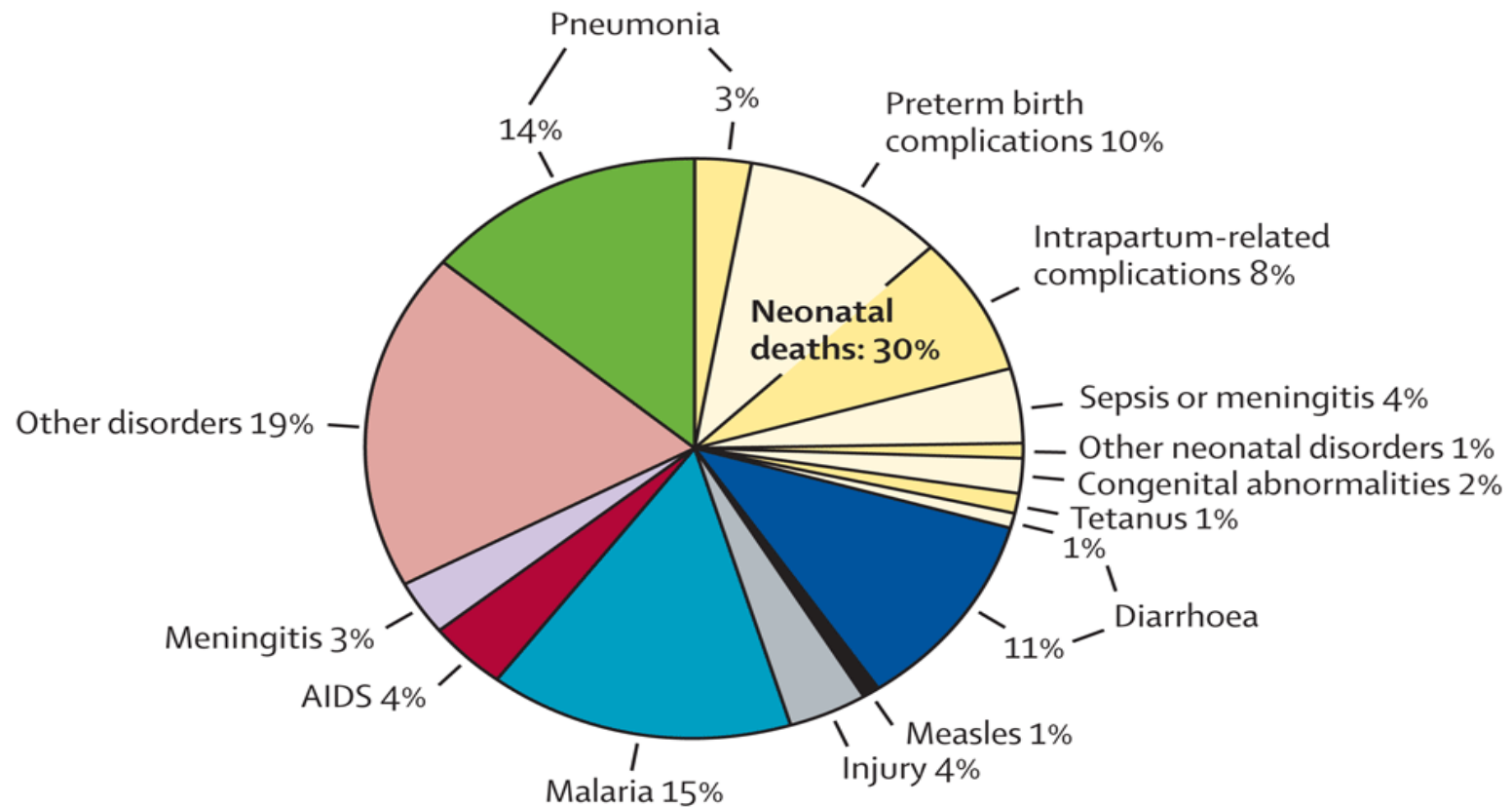
Source: RGI (1197-2003)

INDIA INFANT MORTALITY RATE (1990 - 2015)



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

Causes of Infant Mortality



Source: WHO 2014

Apart from the availability of infrastructure and equipments, another important factor in the labor room is the knowledge of the staff (Staff nurses, ANMs and Doctors) about the standard practices and the actual use of those practices during and after delivery.

The most important factors in the practices include timely filling of the partograph and standard Active Management of Third Stage of Labor. These two practices enable the staff to identify the possible danger signs in the pregnant woman, so that any complications can be prevented or timely managed.

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.

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

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?

Methodology

Observational Study, Unstructured Interview of staff and Record Checking

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.

Sample Size:

Number of institutions covered: 8

DH: 1(Singrauli)

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

Sample Selection: Convenience Sampling of all the CHCs.

The only DH was included.

Data Collection Methods:

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.

Unstructured Interview of the SNs, ANMs and Doctors was conducted to gauge their knowledge of the standard procedures or practices to be followed in the labor room.

Also, the older case sheets were checked to see if the Practices (i.e. partograph and AMTSL were properly being followed or not)

Study Tool:

For quantitative analysis, primary data was collected by observation of the staff in labor room, physical verification of availability and functioning of required inputs in labor room.

Inputs: Trained Manpower, infrastructure, Equipments and drugs.

For this survey, checklist in MNH Toolkit, Supportive Supervision Checklist was used.

Research Objective

To assess the availability and utilization of the required inputs, including trained manpower, infrastructure, equipment and drugs at the delivery points in Singrauli.

Results and Findings

7) Labor Room

7.1 Availability of 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 followed

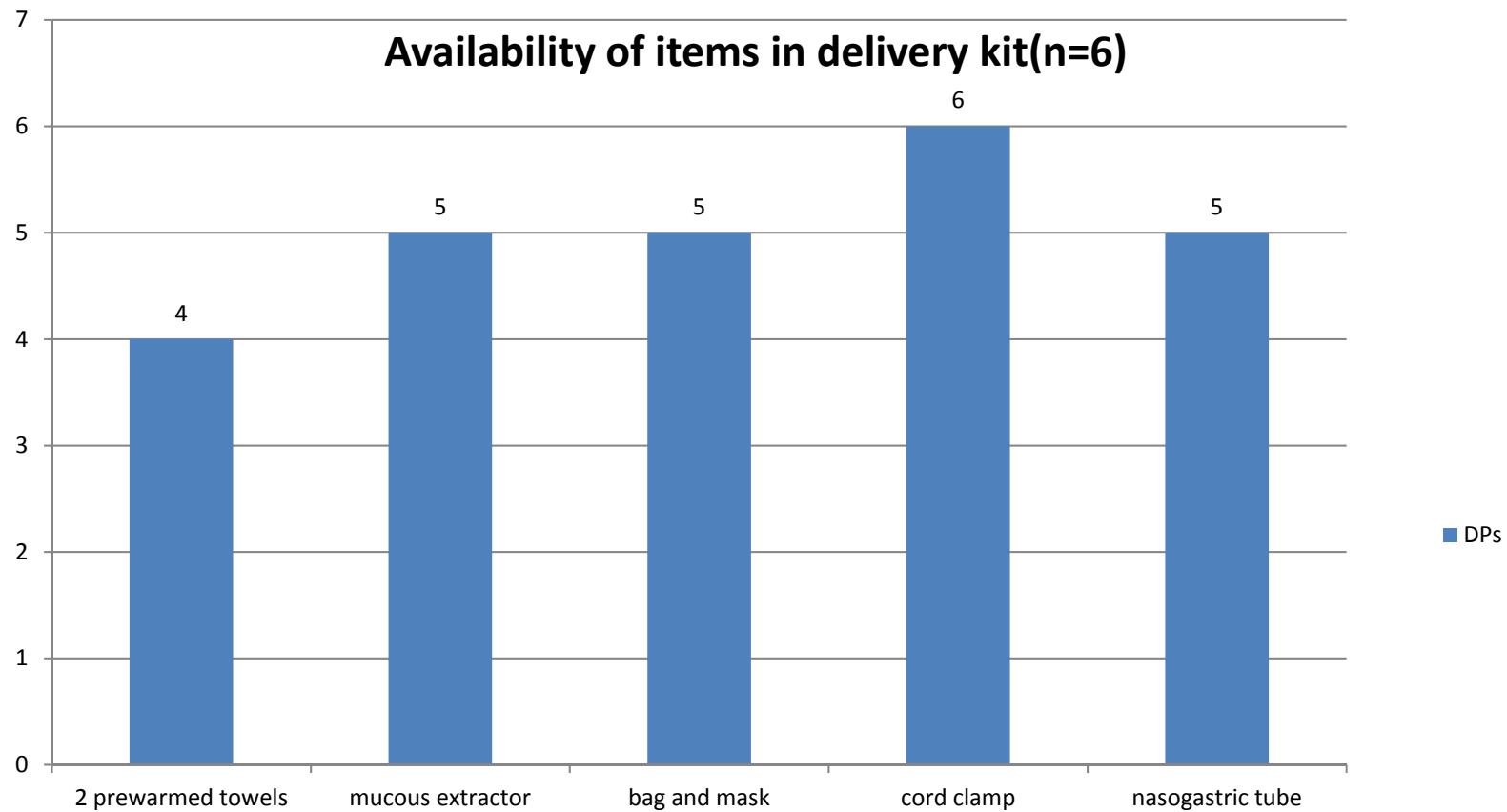
	Partograph	AMTSL	Initiating Early Breast Feeding	Inj. Vit K1	0 Day Immunizati on
Niwas	No	Yes	Yes	Yes	Yes
Sarai	Yes	Yes	Yes	Yes	Yes
Chitrangi	No	Yes	Yes	Yes	Yes
Khutar	No	No	Yes	Yes	Yes
Berdah	Yes		Yes	Yes	Yes
DH Waidhan	Yes	Yes	Yes	Yes	Yes

This data was collected through the Unstructured Interviews conducted of the Staff.

7.3 Equipment Available

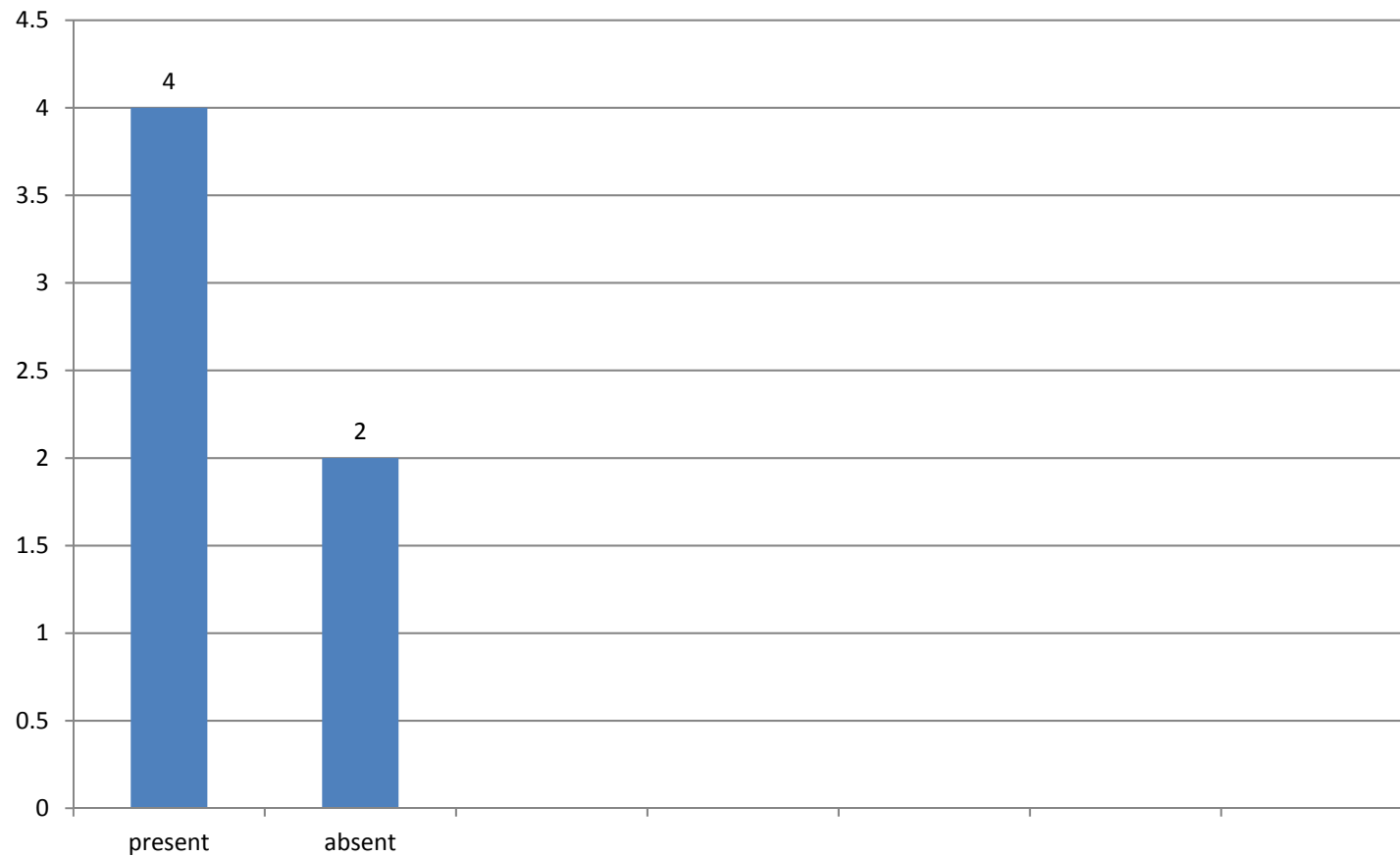
	Autoclave	Delivery Kit
Niwas	No	No
Sarai	No	Yes
Chitrangi	No	No
Khutar	No	Yes
Berdah	No	No
DH Waidhan	No	No

7.4: Availability of items in delivery kit

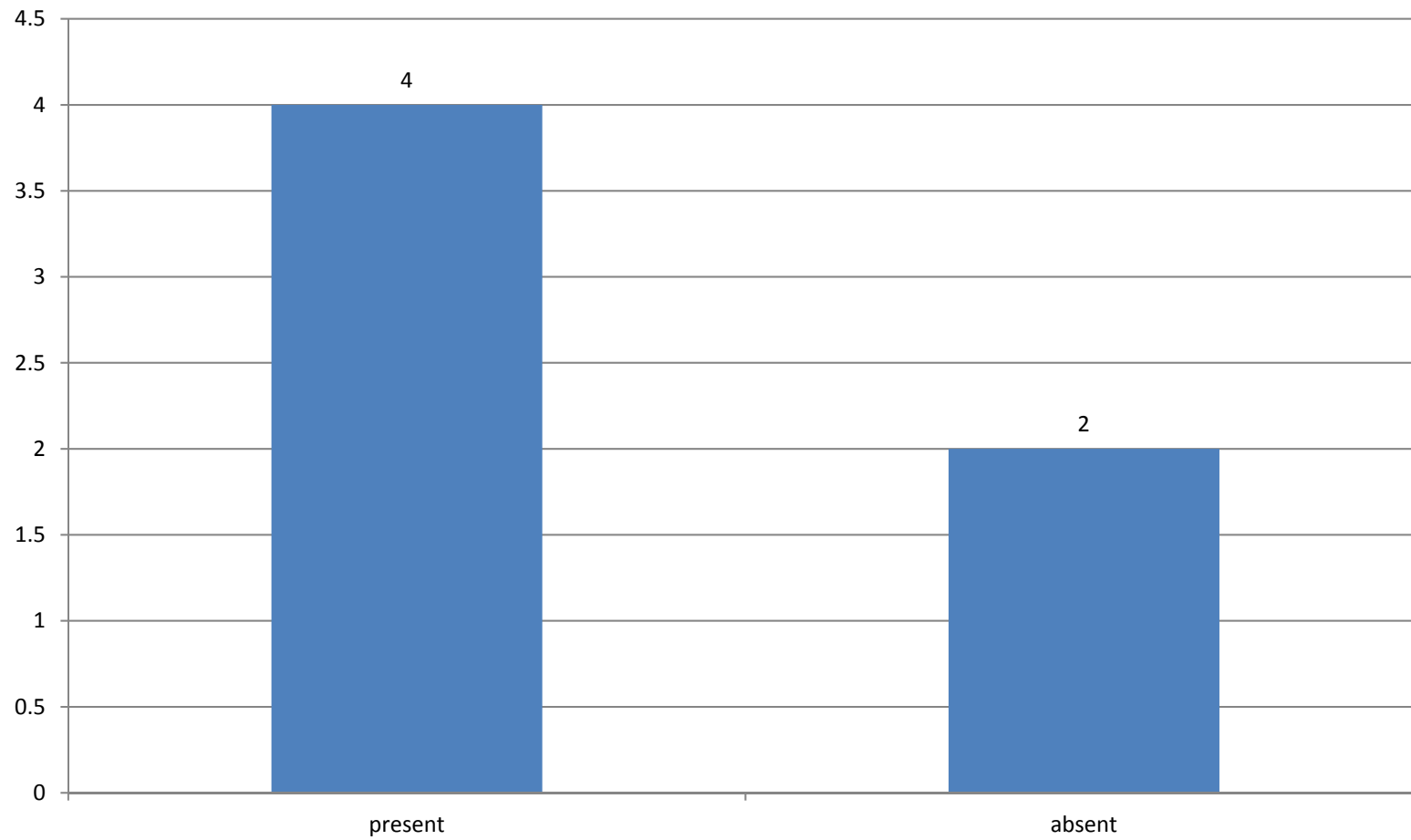


7.5Baby Tray

Availability of Equipment in Baby Tray (n=6)



7.6 New Born care corner Availability (n=6)



Discussion

- 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. It was found from the Records i.e. The older case sheets of patients, that most of the staff does not fill the partograph as per guidelines during Labor Pain in the patient
- 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 BMWWM protocols, so that it can be sent to the processing effectively.

Recommendations

1. An incharge should be assigned to the MCH services at block level to monitor the services at each delivery point.
2. The supervisor should timely and regularly check the functioning of the equipment and practices followed by the staff.
3. There should be half yearly or annual maintenance of all the equipments from the service providers.
4. There should be proper communication channel between the block and district stores of the department, in order to place timely orders of drugs and equipment.

Limitations of the study

1. Lack of Mobility Support to visit the Delivery Points, resulting in convenience sampling.
2. The findings of the study cannot be generalised, but can only be applied to the Delivery Points visited.

Conclusion

As the samples are selected by convenience sampling, the study cannot be generalised. But, it can be said about the supervised Delivery Points that the availability of the Inputs (Infrastructure, Functional Equipment, Trained HR and Drugs) and following of the standard protocols as mentioned by the GoI, can reduce the complications during delivery in the labor room, which can reduce the number of deaths of women during delivery and the death of newborns.(to establish this fact, a further study can be conducted)

Only availability of infrastructure and equipment is not the key to reduce the complications, but the staff also needs to be knowledgeable and trained to follow the standard procedures.

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).

THANK YOU