Facility Survey of Delivery Points in District Satna , MP
IMPROVING THE OUTCOME OF DELIVERY

Submitted by:

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Rationale:

The institutional delivery rate in India has improved around sixty four percent in last ten years. Neonatal and Maternal mortality has also shown a declining trend but the decline has not been proportional to increase in institutional delivery rates.

Many push factors work for high ID – JSY, JSSK, Incentive to ASHA, free referral, free drugs, free diet, counseling in VHND, etc.

Cont…

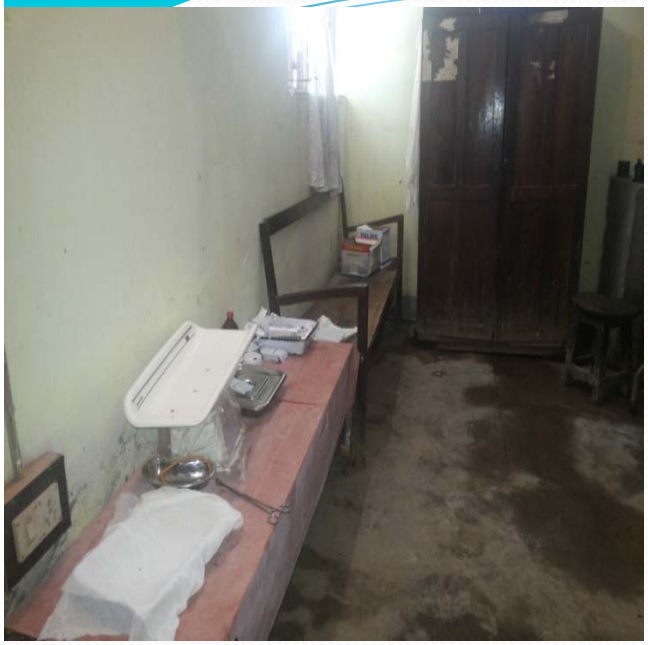
- Satna a high priority district in Madhya Pradesh is also facing such a situation. In order to understand the reasons there was a need to assess the facilities on the basis of the required inputs.

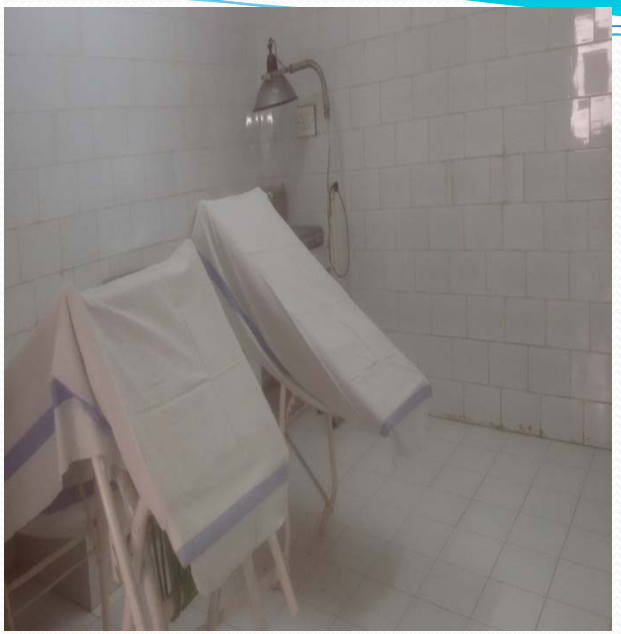
- Studies have suggested that one of the reasons of this situation could be unable to maintain protocols of care during ANC-Delivery-PNC i.e. unavailability, non -functionality and non-utilization of required inputs like infrastructure, skilled human resource, essential equipments and drugs at the health facility, infection management, counseling, 48 hour stay etc., High delivery load on Public health facilities.

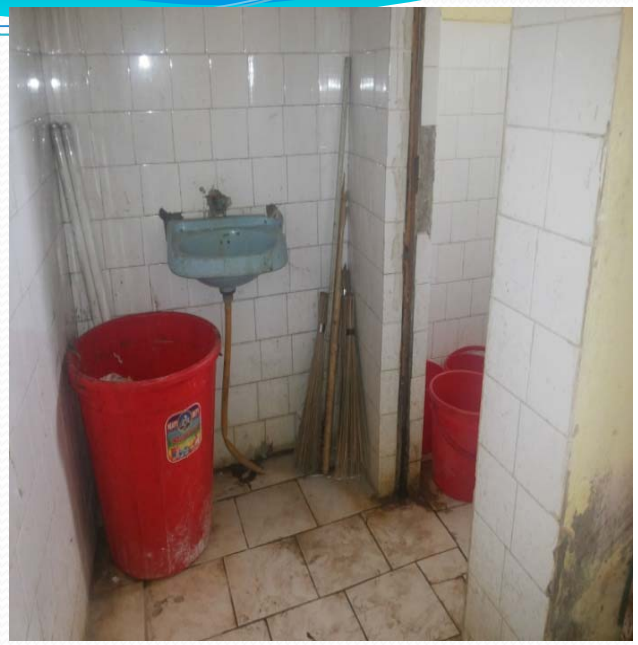
Cont…

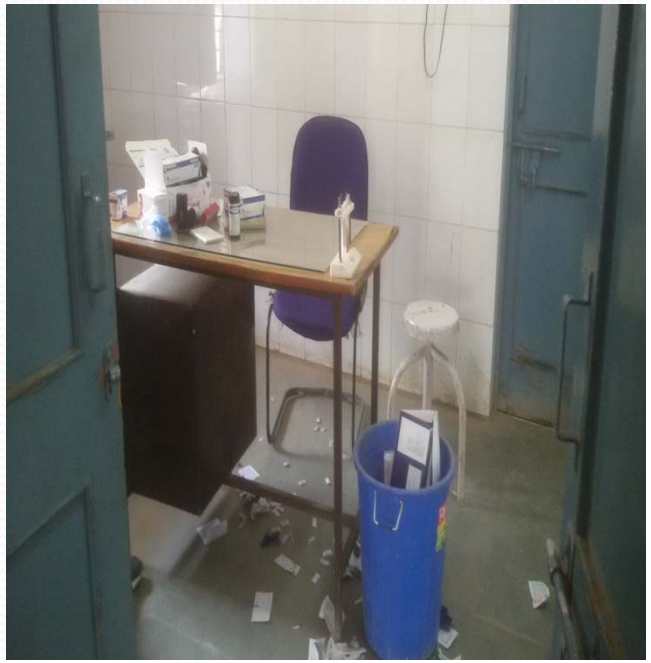
The MMR is the number of women which die from any cause related to or aggravated by pregnancy or pregnancy management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the site of the pregnancy and duration, per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

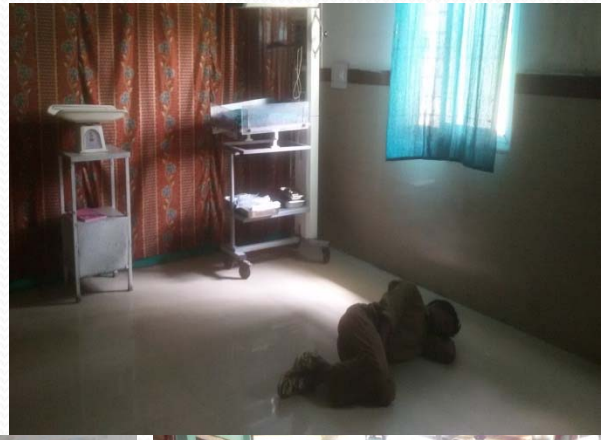
Present Scenario of Institutional readiness





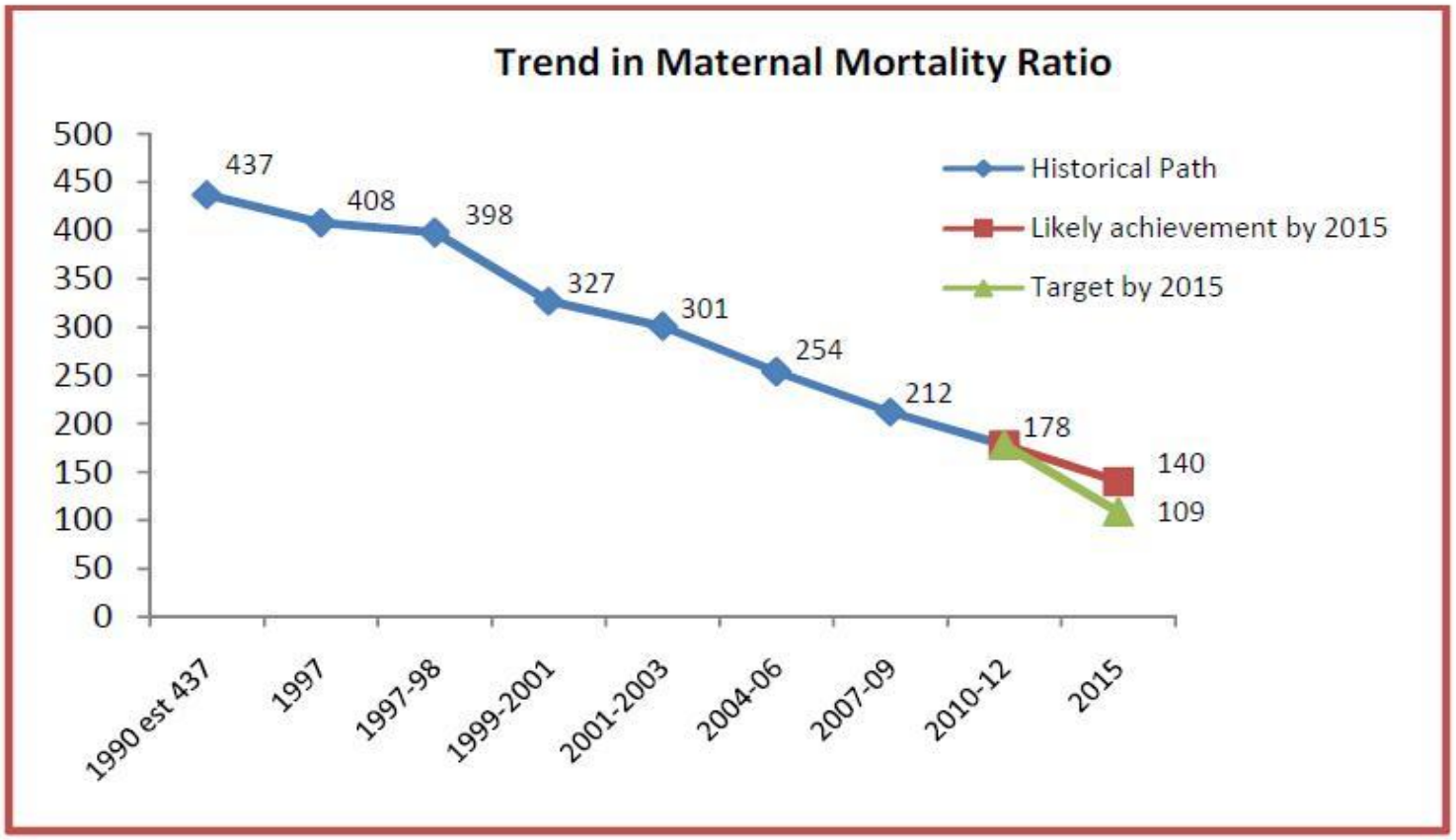






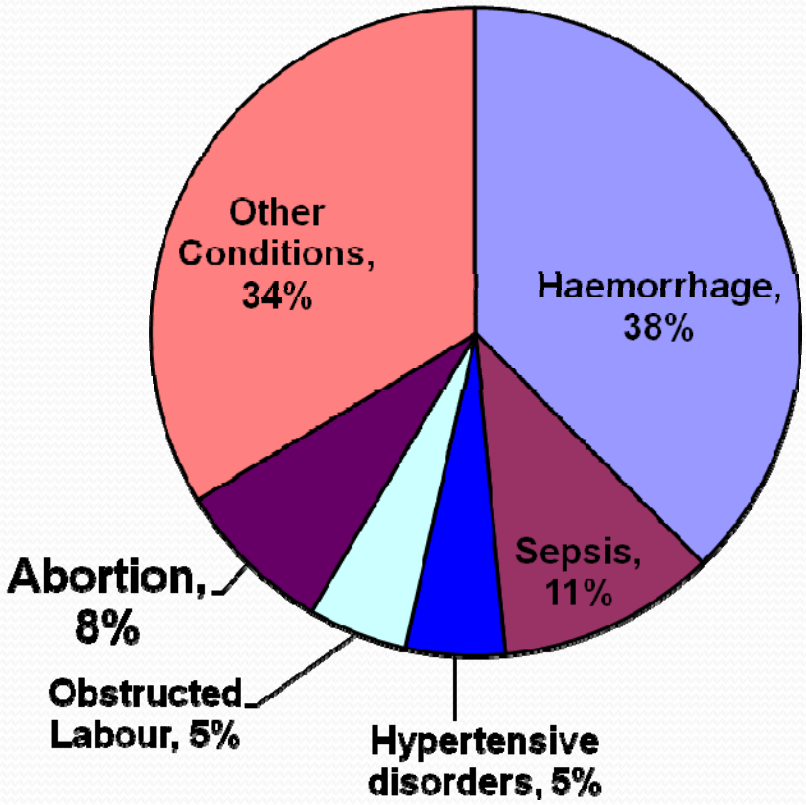

ESSENTIAL DRUG LIST
Inj.Oxitocin
Inj.Mithergin
Inj.Decadron
Inj.Sodibicarb
Inj.5% Dextrose
Inj. NS
Inj.RL
Inj.10% Dextrose

Fig 1. MMR Trend



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

Fig. 2 Maternal Deaths… Unacceptable numbers



•Others conditions

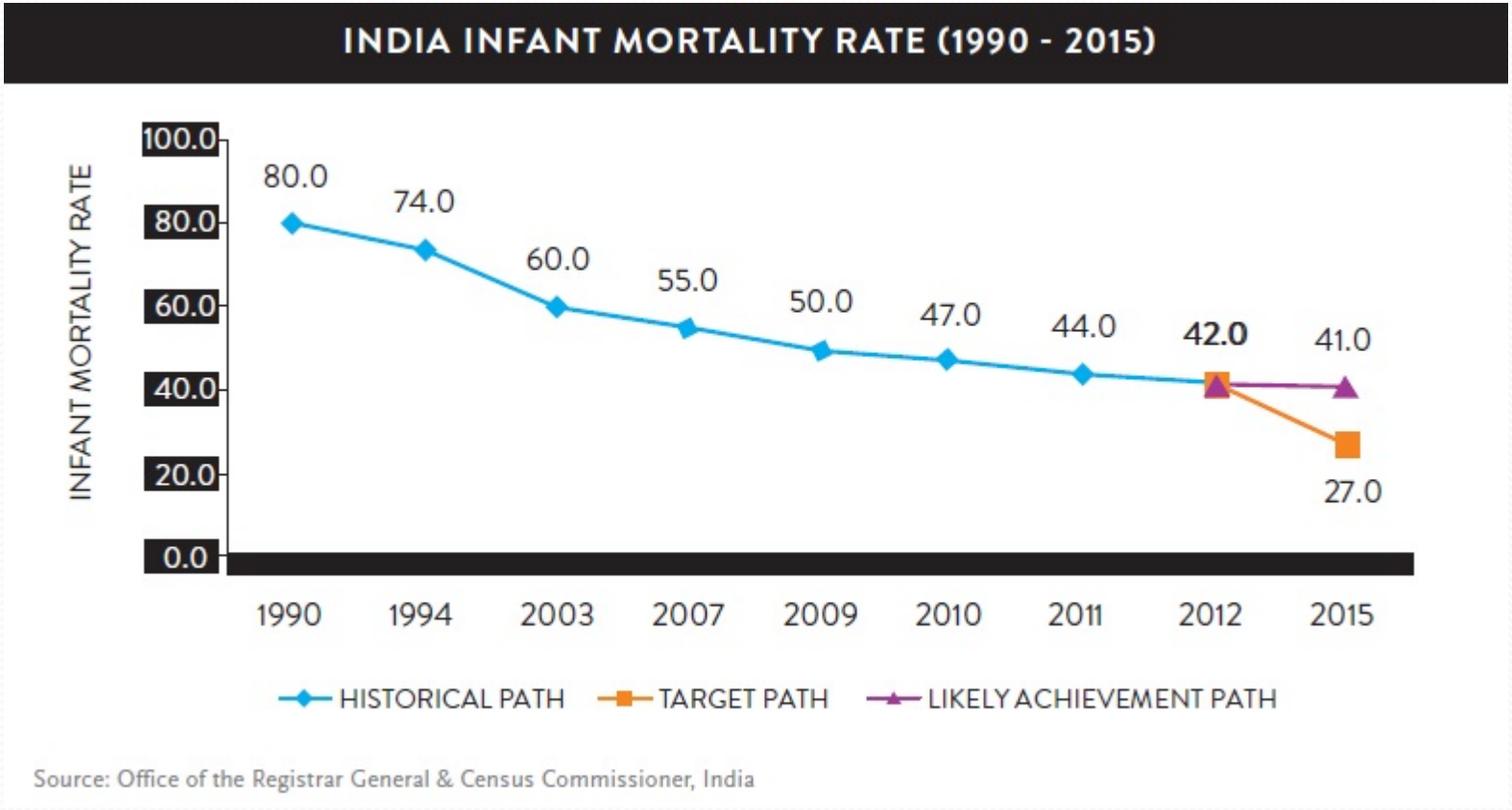
e.g. Ectopic Pregnancy, Severe Anemia, Embolism, Anesthesia etc

•Indirect causes:

- Malaria,
- Anemia and
- Heart & Lung diseases etc.

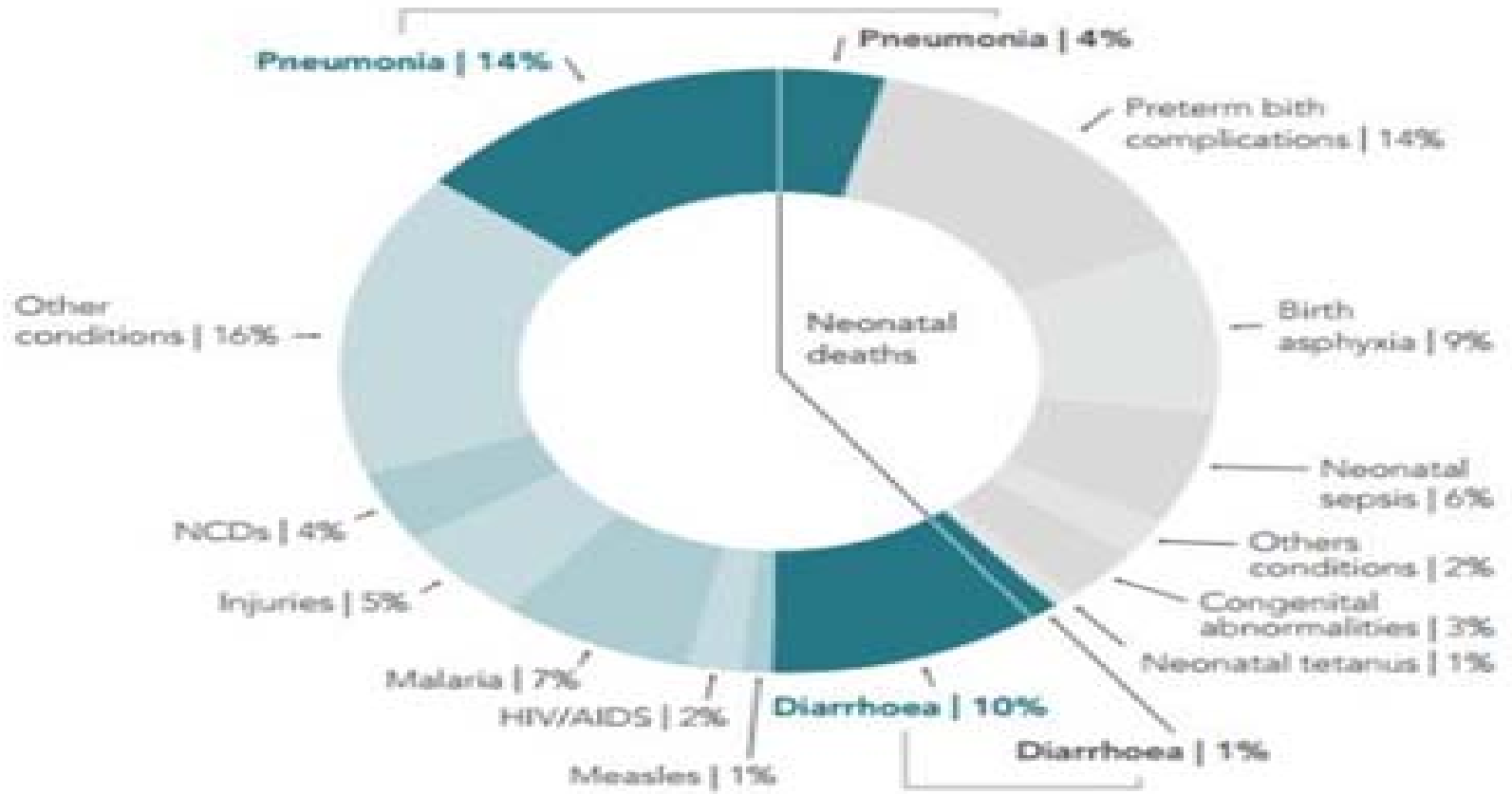
Source: RGI (1997-2003)

Fig. 3 IMR Trend:



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

Fig. 4 Causes of Infant Deaths:



Source: WHO

Table 1: Demographic Profile – District Satna (MP)

Indicator	State	District
Total Population (census 2011)	72,626,809	2,228,935
Urban Population	20069405	474,418
Rural Population	52557404	1,754,517
Male Population	37612306	1,157,495
Female Population	35014503	1,071,440

Cont…

Indicator	State	District
Crude Birth Rate (AHS- 2012-2013)	24.5	28.2
Crude Death Rate (AHS- 2012-2013)	7.7	10.2
Sex Ratio (census 2011)	931	926
Child Sex Ratio (census 2011)	943	910
Total Literacy Rate (%) (census 2011)	69.32	72.26

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

SN	Indicator	Madhya Pradesh State	Satna District
1	Maternal Mortality Ratio	227	268 (Rewa Division)
2	Neonatal Mortality Rate	42	57
3	Infant Mortality Rate	62	83
4	U5MR	83	121
5	Total Fertility Rate	3.1	3.6

Objectives

The study aims to assess the required equipments, drugs, human resources and infrastructural facilities in labour room of delivery points in Satna district;

- Availability of essential equipments
- Functionality of essential equipments
- Utilization of essential equipments
- Training status of available human resources
- Infrastructure facilities
- Drugs and supplies

Methodology:

A mixed method approach (Qualitative and Quantitative research) was adopted for this study.It was a descriptive cross sectional study using supportive supervision checklist was conducted to assess inputs (infrastructure, equipments, drugs and trained personnel) in the labor rooms of eight CHC of eight blocks out of total 32 delivery points (DH, CHC, PHC and SHC) in Satna district of Madhya Pradesh during 3 months, from February 6th 2017 to April 5th 2017.

Cont…

Type of study

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

Study Area

- Satna district is one of the seventeen high priority districts in MP and has eight blocks having thirty two delivery points including DH, CHC, PHC, SHC.

Cont…

Sampling Framework

- A comprehensive list of all the 32 delivery points is made separately for all the eight blocks including DH under district Satna.
- **Convenience sampling is done and all the eight CHCs from each respective eight blocks are taken.**
- Finally survey is conducted at all the selected facilities.

Cont…

Data Collection Procedure

- Primary data was collected by observing available staff in labor room, physical verification of availability and functioning and utilization of required infrastructure, drugs and equipments in the labor room.
- Data for the study was collected during the months of February, March and April 2017 by the researcher in Satna district of Madhya Pradesh to find out the current situation of labor rooms at the delivery points.

Cont…

Data Collection Tools and Techniques

- Primary data was collected from the institutions with the help of supportive supervision checklist provided in the MNH Toolkit which have been designed for the use by Monitoring Personnel and the Supportive Supervisors which contain the information regarding the RMNCH+A services.
- The checklist was filled by direct observation or by asking the concerned staff on duty about the listed services or equipment, physical verification of availability, functioning and utilization of required infrastructure, drugs and equipments in labour room, remarks were noted and quality aspects were explored by interaction with respondents.
- To collect the data of HR availability, their stay at work station and training status was reviewed in records and reports provided by training officer.

Cont…

- Number of institutions covered: (all the CHCs {delivery points} were visited and studied in the study). However DH was also visited and available data is shown in study.

  DH: 1 (Satna)

  CHCs: (Amarpatan, Rampur Baghelan, Kothi, Maiher, Nagod, Ramnagar, Uchchera, Majhgawan)

- **Sample Selection: Convenience Sampling of the delivery points done, all CHC from eight respective blocks were taken.**


Quality in Labour Room
Privacy
Infection Control
Partograph
Trained Staff
Management of Complications
Referral
Drugs Availability
Protocols
Behavior of Staff
Availability of Doctors
Labor room register

Quality of care in Labor room is an critical issue:

- **Proposed activities**
- Adequate Delivery trays proportionate to no. of delivery tables
- Basic equipments as per MNH toolkit
- Availability of one functional NBCC in the LR
- LR protocol to be displayed in the LR
- Partographs to be maintained for each ID
- Adherence to infection management protocols – hand wash, mackintosh sheet, cleanliness of floor & wall, sterilized equipments, sterilized apron & mask, segregation of waste, color coded bean, clean toilet, etc
- All the SNs must be trained in SBA
- All the SNs must be trained in NSSK

Present scenario

Not yet fulfilled any of the proposed quality activities


Delivery with dignity
Let Us Concentrate on an ideal Delivery Room in context of MP

Delivery room, ANC & PNC ward Protocols Mandate:

- Act as pull factor for 100% Institutional Delivery rate.
- Delivery with dignity
- To maintain strict asepsis to reduce maternal and neo-natal death.
- To provide good working atmosphere to the hospital staff
- To ensure 48 hour mandatory stay in PNC ward to look for post partum complications by improving status of PNC ward.

Assessment : Labour Room

Labour Room

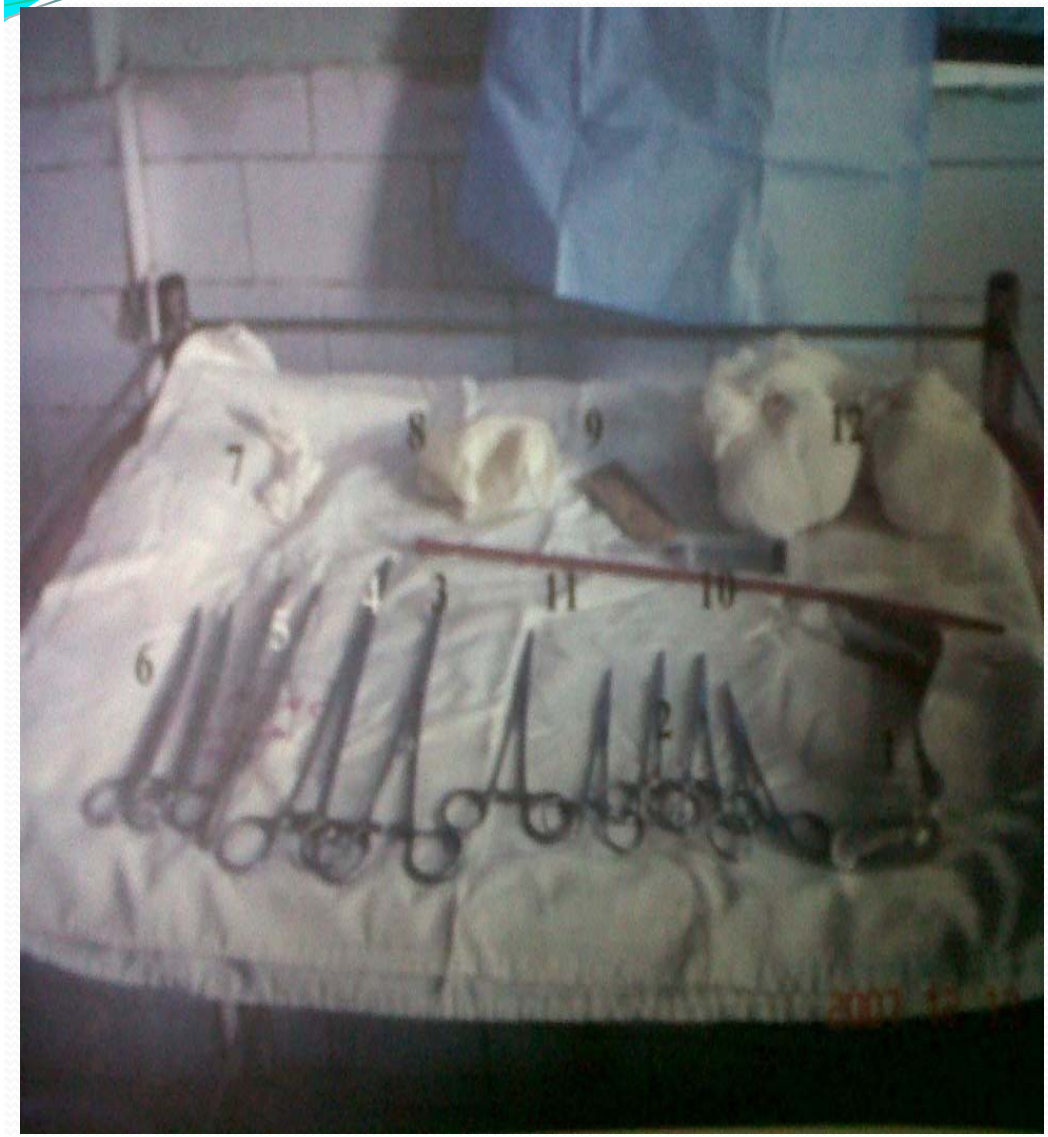
- **Labour table with McIntosh sheet**
- **Suction machine**
- **Oxygen cylinder with face mask, wrench & regulator / Oxygen Concentrator**
- **24 hour water supply**
- **Waste disposal system in place**
- **24 hour electricity with backup**
- **Attached toilet in the labor room**
- **Designated Newborn Corner (Radiant warmer, separate drug tray for the baby, suction canula, Pedal suction machine /mucus extractor, Ambu bag)**
- **Privacy in the labor room**
- **Flooring, Walls, Ceiling and Lighting adequate**

- **Emergency Drug tray with:**
  - **Oxytocin injection**
  - **Diazepam Injection**
  - **Magnesium Sulphate Injection**
  - **Lignocaine Hydrochloride Injection**
  - **Nifedipine Tablet**
- **Normal Delivery Kits availability**
- **Equipment for assisted vacuum delivery**
- **Equipment for forceps delivery (outlet forceps)**
- **Surgical set for Episiotomy and minor procedures available**
- **Availabilty of Gloves, Sterilized cotton gauze, Sterile syringes and needles, drip sets and IV infusions**
- **Protocols displayed**

Labor room

- Protocol
- Delivery tray
- Availabilty of Gloves,
- Sterilized cotton
- gauze,.
- Spot light
- Curtain
- Oxygen Cylinder
- Labour table
- Attached toilet
- Ramp
- Monitor
- Infection control
- Drugs
- New born corner
- Trained staffs
- Trained Dr.
- Partographs
- Watch

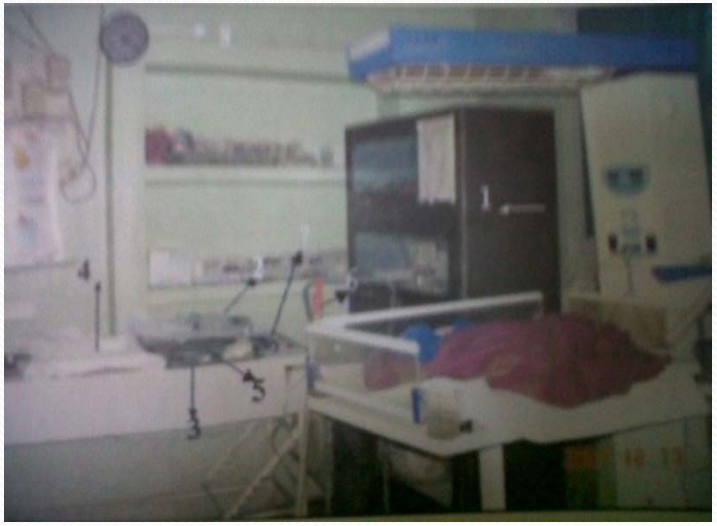
Delivery Trolley



1. **Speculum**
2. **Artery Forceps**
3. **Needle holder**
4. **Sponge holder**
5. **Thumb Forceps**
6. **Scissors- Straight & curved**
7. **Cord Tie**
8. **Gloves size 6, 6.5**
9. **Catgut**
10. **Xylocaine loaded Syringe**
11. **Urinary Catheter**
12. **Mop/Pad**

*** Retractor**

NEWBORN CARE CORNER



1. Radiant warmer
2. Neonatal Ambu Bag with face mask
3. Mucous Extractor
4. Infant tray with clean cloth for draping the baby
5. Oxygen cylinder with flow meter
6. Nasal catheter
7. Laryngoscope and Endotracheal intubation tube
8. Paediatric Stethoscope
9. Baby scale

Surgical asset for Episiotomy and minor procedures available

Caesarean Section Set

	Description	Quantity
1	Episiotomy Scissor	1
2	Scissor Straight	1
3	Sponge Holding Forceps	1
4	Vaginal Speculum	1
5	Artery Forceps Straight	2
6	Artery Forceps Curved	2
7	Needle Holder 7 Inch	1
8	Gallipot	1
9	Kidney Tray	1
10	Tissue Forceps Toothed 1x2Teeth	1
11	Tissue Forceps Toothed 1x2Teeth	1
12	Instrument Tray	

Results and Findings

A) Labor Room

a) Infrastructure

Block CHC	Separate Labor Room	7 Trays Available	Functional Kelly's Pad	BMWM	Privacy	16 Protocols	Functional NBCC
Kothi	Yes	Yes	Yes	Yes	Yes	No	Yes
Maiher	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Amarpatan	Yes	Yes	No	No	Yes	No	Yes
Rampur Baghelan	Yes	No	No	No	No	No	No
Majhgawan	Yes	Yes	No	No	Yes	No	Yes
Uchchera	Yes	Yes	No	No	No	No	No
Ramnagar	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nagod	Yes	Yes	Yes	No	Yes	No	Yes

Cont…

b) **Practices**

Block CHC	Partograph	AMTSL	Initiating Early Breast Feeding	Inj. Vit K1	0 Day Immunization
Kothi	No	Yes	Yes	Yes	Yes
Maiher	Yes	Yes	Yes	Yes	Yes
Amarpatan	Yes	Yes	Yes	Yes	Yes
Rampur Baghelan	No	No	Yes	Yes	Yes
Majhgawan	Yes	Yes	Yes	Yes	Yes
Uchchera	Yes	No	Yes	Yes	Yes
Ramnagar	Yes	Yes	Yes	Yes	Yes
Nagod	Yes	Yes	Yes	Yes	Yes

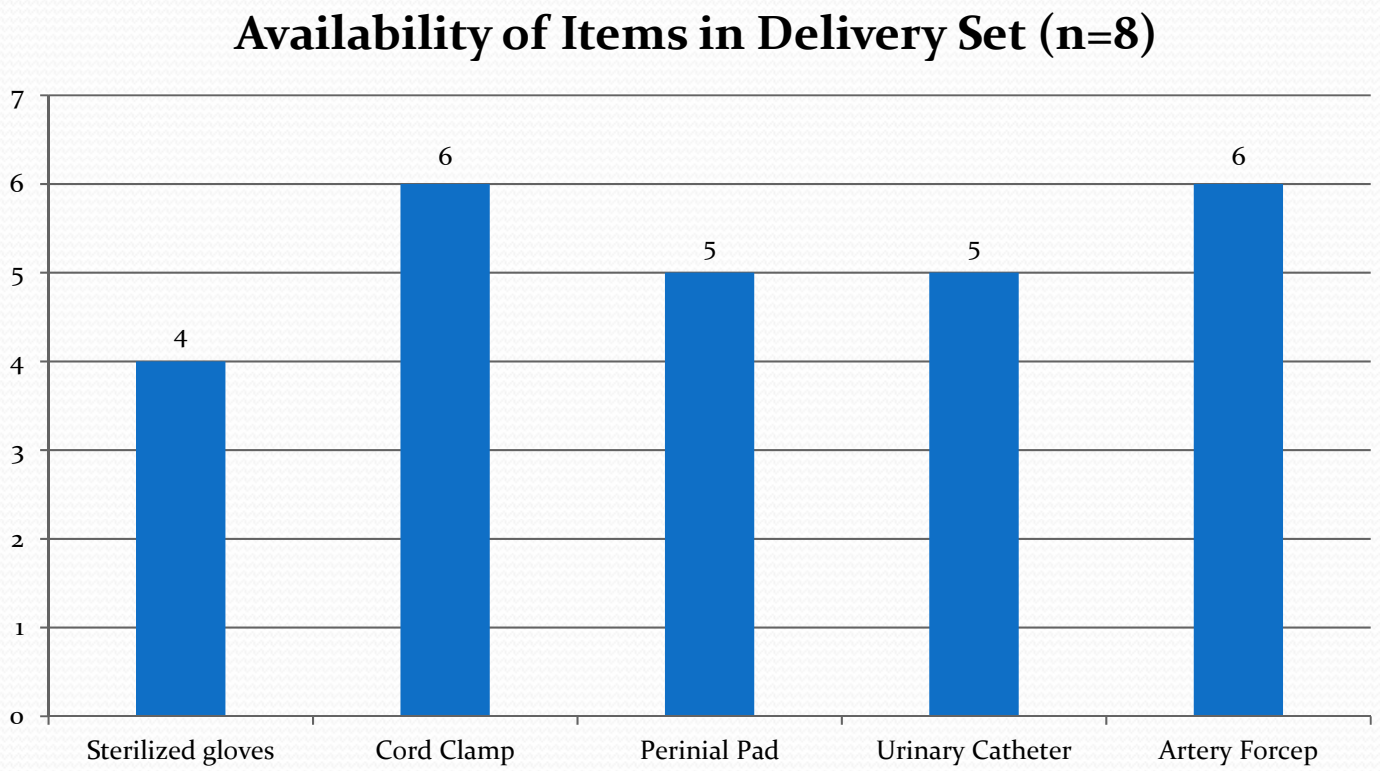
Cont…

c) Equipments

Block CHC	Autoclave	Delivery Kit
Kothi	Yes	Yes
Maiher	Yes	Yes
Amarpatan	Yes	Yes
Rampur Baghelan	No	No
Majhgawan	No	Yes
Uchchera	No	Yes
Ramnagar	Yes	Yes
Nagod	Yes	Yes

Cont…

d) **Delivery Kit**



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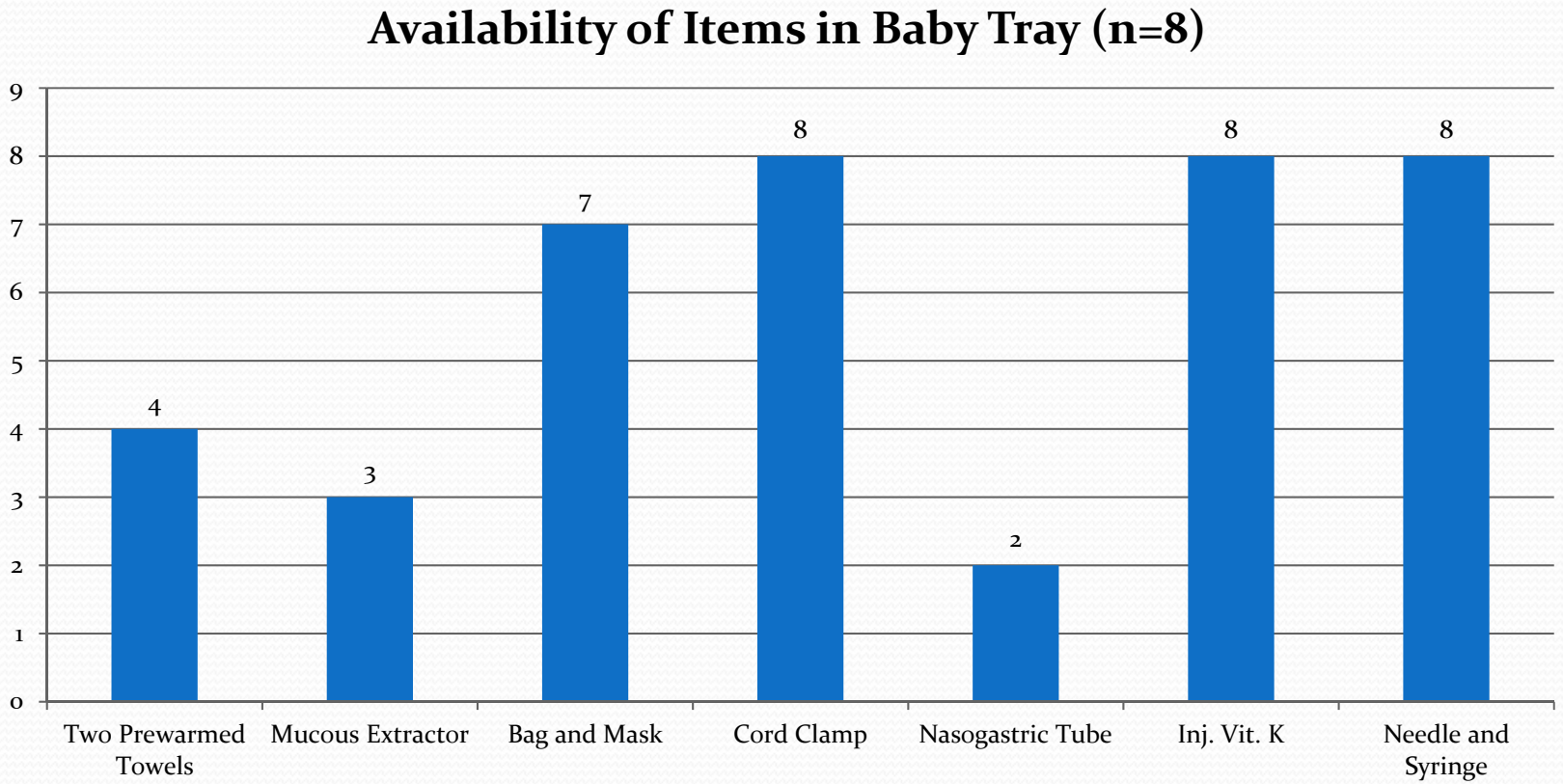
e) Baby Tray



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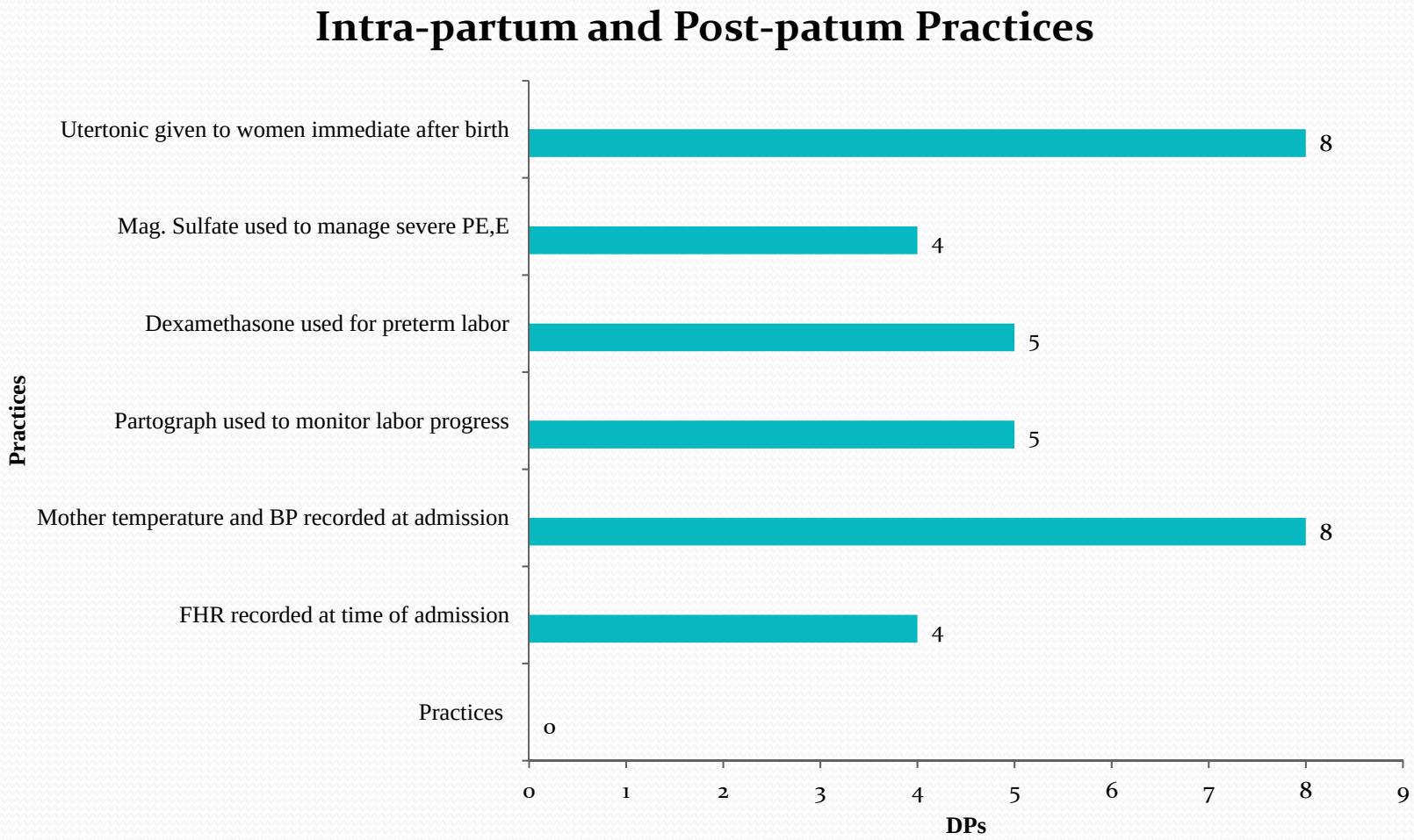
f) Intrapartum and Immediate Postpartum Practices



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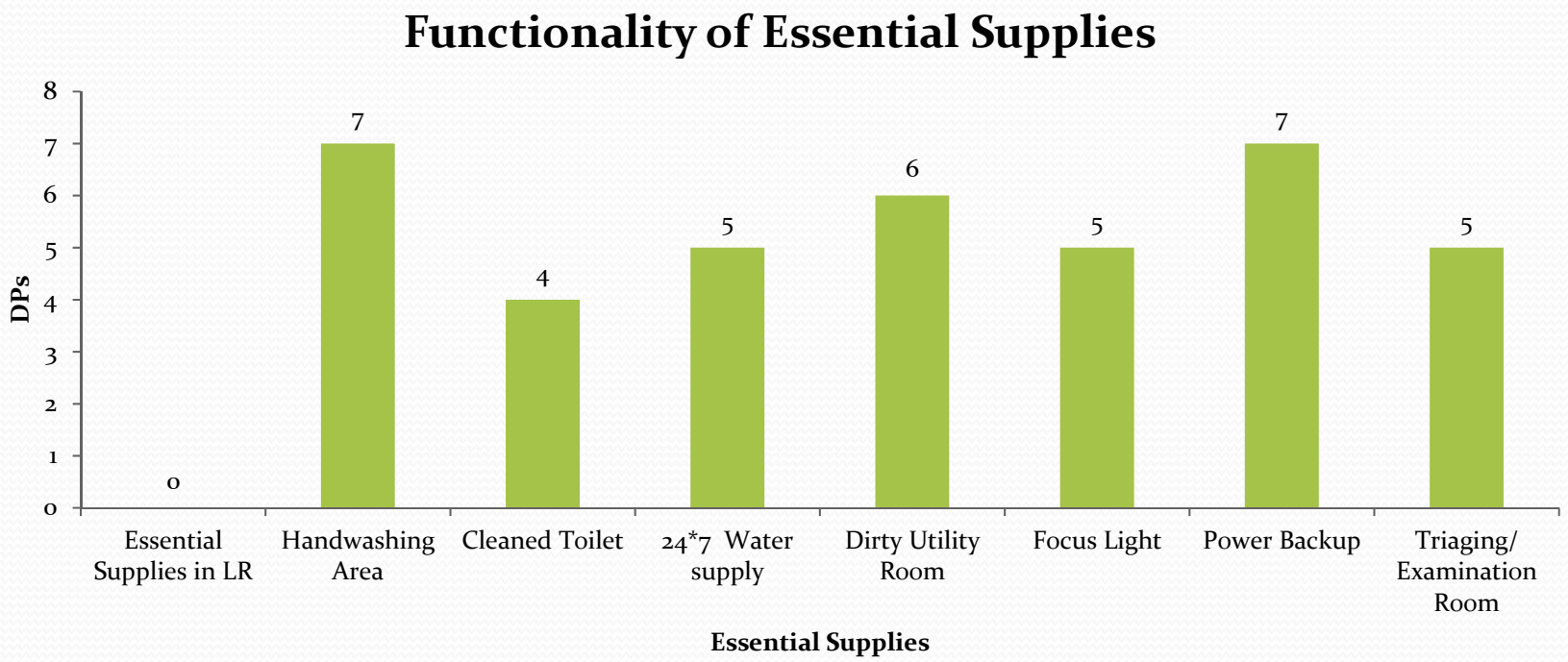
g) Functionalities of Available Essential Supplies



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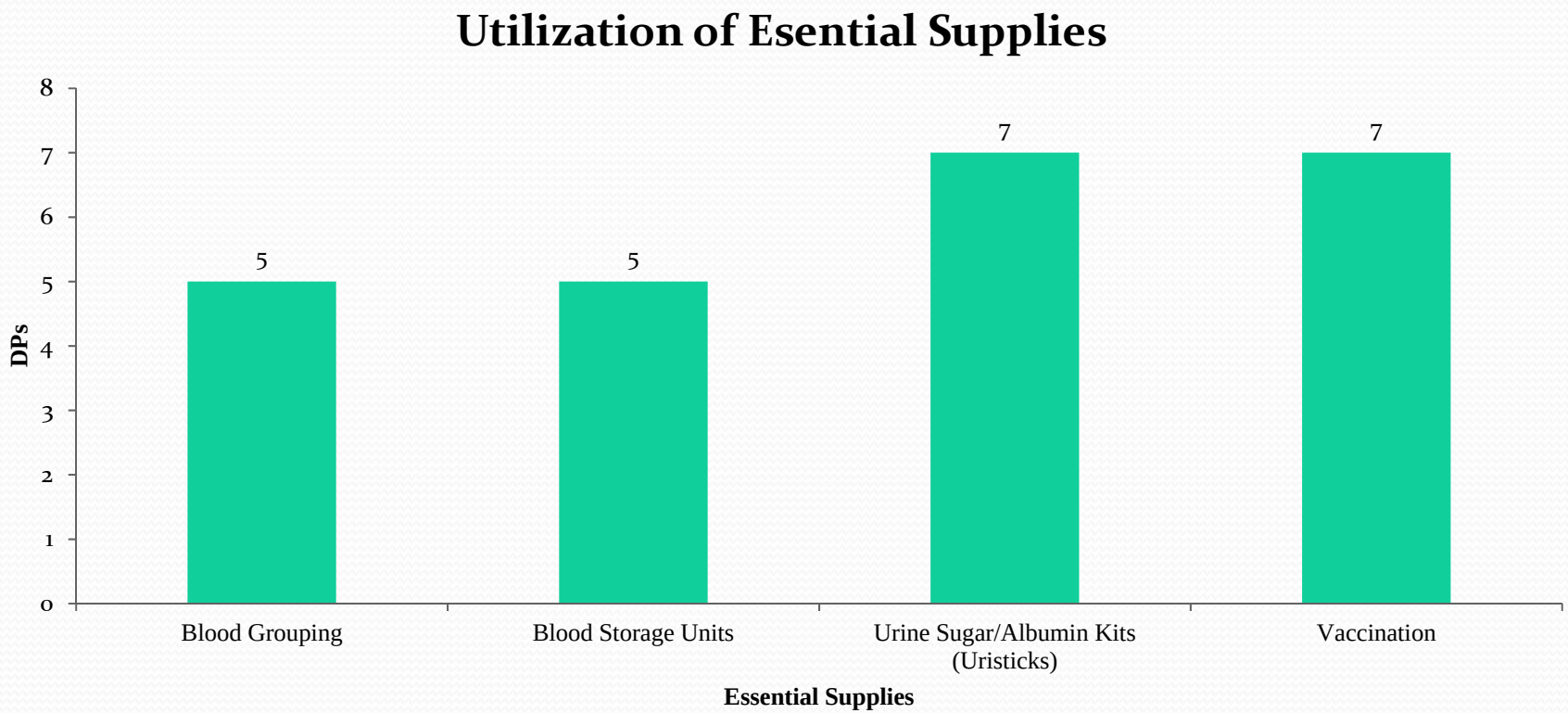
h) Utilization of Essential Supplies



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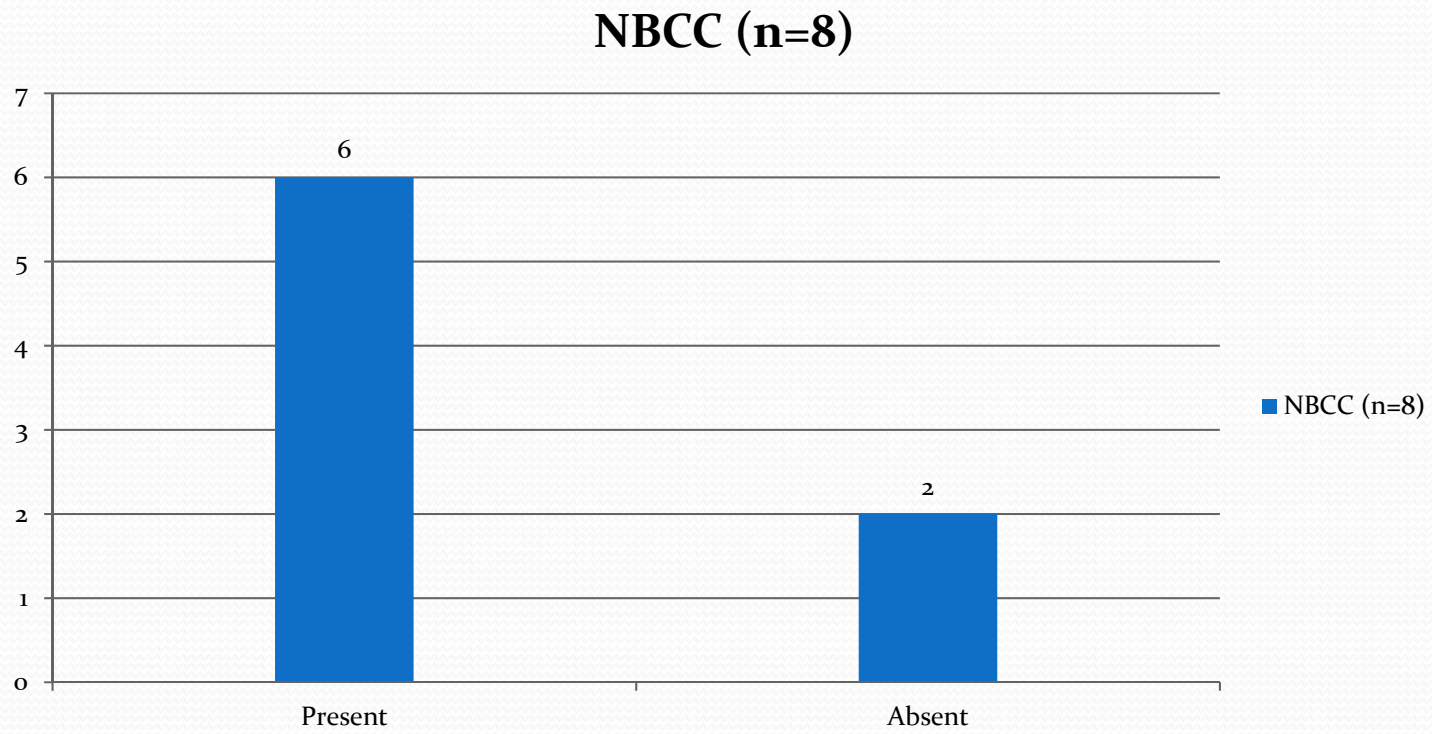
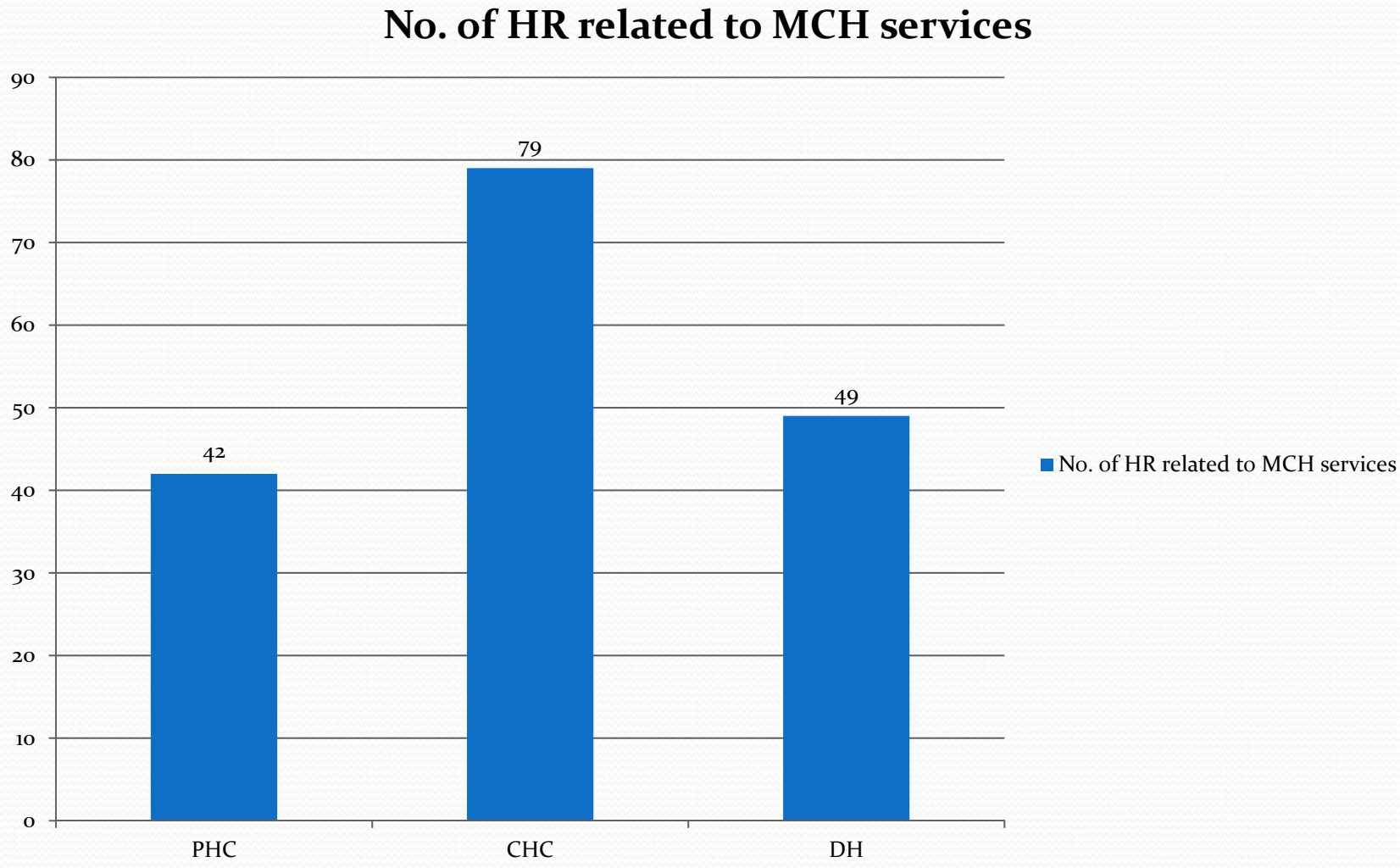
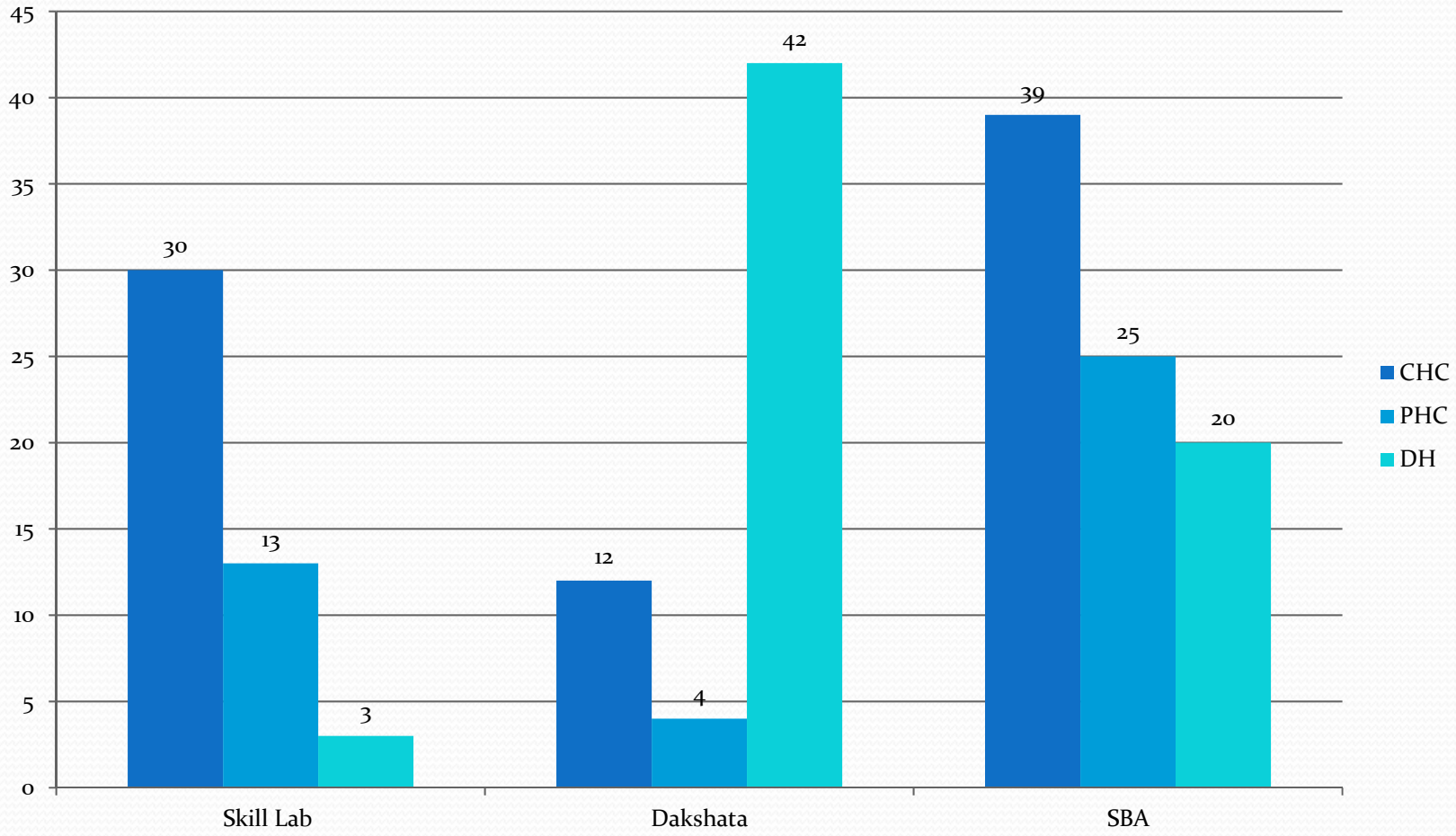
i) New Born Care Corner



B) Human Resource



C) Training


45
40
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42
39
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20
Skill Lab
Dakshata
SBA
CHC
PHC
DH

Results:

Nearly three fourth of the respondents (73.8%) had knowledge of protocols followed in Labour room but lacked detail and indepth knowledge of the component parts of the partograph, AMTSL, PPH management, Pre-eclampsia management and eclampsia management., knowledge of seven delivery trays set-up, equipment functionality, drugs availability had a significant relationship with its utilization. Satisfactory knowledge of the partograph (75%), lack of retained knowledge on AMTSL, PPH management (60%), availability of non-expired drugs (40%), shortage of staff (51.5%) and the fact that most of them were less motivated towards their work.

Postnatal Ward

Busiest postnatal ward

Absence of staff

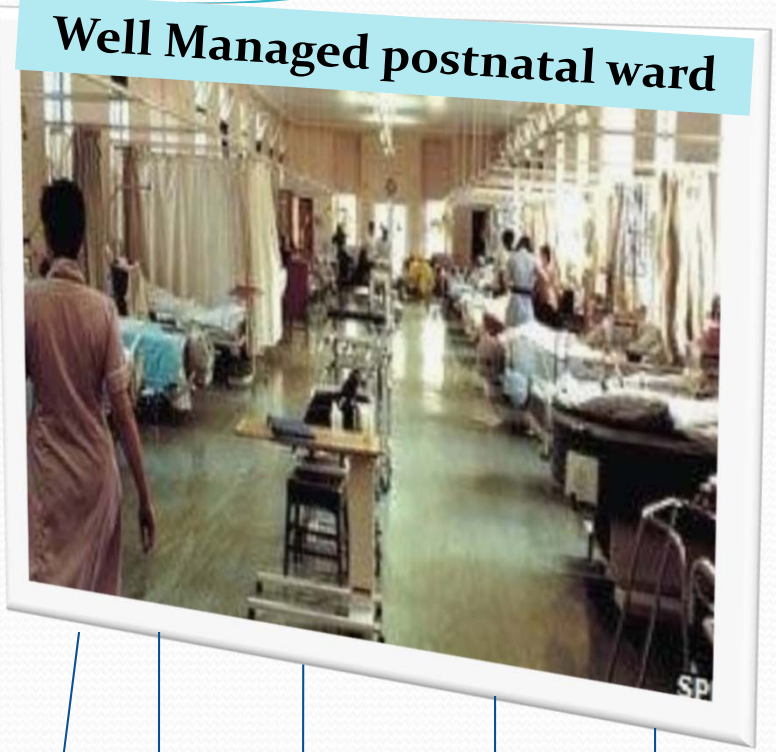
Clumsy

Lack of Space

No Privacy

Unhygienic

Well Managed postnatal ward



Traine d staff

Well Manage d

Rack

Space

Privacy

White Tiled

Cleanliness

Maihar CHC

Noticeable Changes: New Labour Table, Mackintosh Sheet, Curtains, Spot Light/Lamp & Color Coded Bins are in place. New Born Care Corner (NBCC)have been installed at the right place of Labour Room (LR).

Ramnagar CHC









Noticeable Changes: A radical change inside the Labour Room with all Equipments & Accessories, NBCC, basin with a good Infection Control Management System.

Amarpattan CHC

Noticeable Changes: New Labour Table, Mackintosh Sheet, Curtains, Spot Light/Lamp, necessary Equipments, Drugs & Consumables, Protocols are in place

Nagod CHC

Noticeable Changes: One of the most challenging hospitals of the State, Labour Room (LR) was very much congested and conceptually there was no ANC/PNC Ward. However, whole LR & ANC/PNC ward has been shifted in the 1st Floor of the Facility's building with new Labour Table, Curtains, Lights, Water Connectivity & Infection Control Management.

Findings after Corrective Measures taken: Delivery Room

- The working atmosphere in the delivery rooms has drastically improved due to availability of all necessary resources inside the labour room.
- The sanitation and cleanliness has improved a lot.
- The Infection preventive practices has improved as Clean table , Clean hands, Clean Cord practices has been ensured by use of plastic aprons, gloves, clean floor, disposal of the products of delivery by Biomedical waste management etc. use of chappals.
- The storage of the essential consumable items like sterile cotton, antiseptics, and all essential medicines has improved.

Cont…

- The equipments like Different trays e.g. Delivery tray, baby tray has become proportionate to number of deliveries taking place per day. This ensures adequate time for sterilization of these items prior to its next use. This will help to reduce the infections in Delivery Room.
- **Privacy of the woman in Delivery room has been ensured with use of curtains on windows, doors which is more important in case of rural healthcare settings**.
- Various Labour Room Protocols like treatment of PIH, Postpartum Hemorrhage, Neonatal Resuscitation etc almost 12 different varieties has been put up in all 30 facilities for assistance of doctors ,staff nurses working in labour room.

Cont…

- Focus has been given on ensuring the availability of necessary skills like skilled birth attendance, Essential newborn care by training of nurses on SBA, NSSK and ENC training.
- In New born Care Corner all essential equipments like Radiant warmer, Ambu Bag, Oxygen trolley, Baby weighing scale, Mucus extractor baby towel etc. are made available.
- Protocol for Neonatal resuscitation has been made available next to warmer for assistance of the trained staff nurses.
- These will ensure reduction in Neonatal morbidity and mortality due to hypothermia, asphyxia, which are most important reasons of neonatal death.

Conclusion:

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.

Cont…

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 (if any) be identified in time, and corrective measures planned and appropriate action taken.

Cont…

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

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