Internship Training

at

Regional Resource Centre for North – Eastern States

Study Title: Assessment of Existing Status of Labour Room and Newborn Care Corner in Public Health Facilities in Kamrup Rural District of Assam

by

Ms. Gayatri Devi

PG/13/079

Under the guidance of

Ms. Divya Aggarwal

Post Graduate Diploma in Hospital and Health Management

2013-15

International Institute of Health Management Research

New Delhi

This Certificate is awarded to

Ms. Gayatri Devi

In recognition of having successfully completed her Internship in the Department of

Quality Improvement

And has successfully completed her project on

Assessment of Existing Status of Labour Room and Newborn Care Corner in Public Health Facilities in Kamrup Rural District of Assam

Dated: 22-05-2015

At

Regional Resource Centre for North – Eastern States

She comes across as a committed, sincere and diligent person who has a strong drive and zeal for learning

We wish her all the best for future endeavors

Dr. A. C. Baishya
Director

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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Gayatri Devi student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at Regional Resource Centre for North- Eastern States from 12-02-2015 to 12-05-2015.

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 her future endeavors.

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Certificate of Approval

The following dissertation titled **"Assessment of Existing Status of Labour room and Newborn Care Corner in Public Health Facilities in Kamrup Rural District of Assam"** at **"Regional Resource Centre for North -Eastern States"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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Certificate from Dissertation Advisory Committee

This is to certify that **Ms.** Gayatri Devi a graduate student of the **Post-Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. She is submitting this dissertation titled" Assessment of Existing Status of Labour Room and Newborn Care Corner in Public Health Facilities in Kamrup Rural District of Assam" at "Regional Resource Centre for North - Eastern States" in partial fulfillment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Assessment of Existing Status of Labour Room and Newborn Care Corner in Public Health Facilities in Kamrup Rural District of Assam" and submitted by Ms. Gayatri Devi, PG/13/079 under the supervision of Ms. Divya Aggarwal for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 12-02-2015 to 12-05- 2015 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.

Gayatri Devi

Ms. Gayatri Devi

FEEDBACK FORM

Name of the Student: Ms. Gayatri Devi

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ABSTRACT

Objective: The main objective of the present study is to assess the existing status of Labour rooms and Newborn care corner (NBCC) in L1, L2 and L3 public health facilities in Kamrup (Rural) district of Assam with respect to Indian Public Health Standard (IPHS) and guidelines laid down in the MNH Toolkit for availability of infrastructure, human resource and training status, delivery services, drugs and surgical items, supplies and miscellaneous items along with the maintenance of essential records.

Material and methods: The study is exploratory in nature. Data were collected by observation, record review and interviewing of the key staff members of Labour room of the study facilities through semi-structured checklist and semi-structured questionnaire. 10 health facilities were selected for the study by random sampling. 30 key staff members of Labour room were selected conveniently for assessment of knowledge.

Results: It was found that out of 10 study facilities, Labour rooms are available in only 8 health centres. It was observed that with an average 75% of health facilities has adequate infrastructure in the labour room and NBCC. Equipments in Labour room and NBCC were available in an average of 50% and 53.1% study facilities. Shortage of human resources, especially in L2 and L1 facilities were observed. With an average of 46% and 21% of human resource were trained in L3 and L2 facilities respectively. Knowledge level of key staff members are mostly moderately satisfied in the domain of Essential Newborn Care, Essential Obstetric Care and Infection prevention in labour room. Regarding compliance to quality, all the L3 level facility has labour room with compliance to quality protocols above 60%, for L2 and L1 facilities the average scores for compliance to quality protocol are 42% and 51% respectively.

Recommendation: It is recommended that the L2 and L1 facilities should be equipped with qualified manpower as per standards to deliver service on 24 hours basis along with supply of essential drugs and equipments to handle basic emergencies as well as to provide safe and quality service during intra-partum period.

ACKNOWLEDGEMENT

The successful completion of any given task requires a lot of hard work and sincere efforts. Hard work and efforts are only the building blocks of an assignment, but the plinth has to be inspiration, suggestion, support and guidance. Internship in an organization is an important part of the curriculum and this I have achieved from one of the esteemed organization, Regional Resource Centre for North – Eastern States (RRC – NE), Assam. This internship has added a valuable and knowledgeable exposure for the development of my career and achievement of my objective, for which I am highly grateful to the organization. Any attempt at any level cannot be a success without the support and direction of experienced people.

At the outset I would like to express my deep sense of gratitude to Dr A C Baishya, Director, Regional Resource Centre for North-Eastern States for his critical inputs and guidance throughout the internship period. My heartfelt gratitude to my mentor Ms Divya Aggarwal, Assistant Professor, IIHMR(New Delhi) for her constant help and guidance right from the approval of research protocol till the completion of dissertation report.

I gratefully acknowledge Joint Director, NRHM Kamrup(R) for his permission to carry out the study in Public Health Institutions of the Kamrup Rural District of Assam.

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I would like to put words of appreciation to the consultants, programme associate(Quality Improvement), RRC-NE and my fellow colleague and friends for providing all sort of help and co-operation whenever needed.

I am very much gratified to all the medical officer in-charge and medical superintendent of the health facilities as they were always very co-operative and supportive.

The study and the report was possible because of the information provided by the staff of the public health institutions. I would like to extend my gratefulness to all of them for their active participation.

Last but not the least I am thankful to the Almighty God, for keeping me sound and healthy to complete my internship successfully.

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ABBREVIATIONS

ANM	Auxiliary Nurse Midwife
AYUSH	Ayurvedic, Yoga, Unani, Siddha and Homeopathy
BPHC	Block Primary Health Centre
CHC	Community Health Centre
DLHS	District Level Household Survey
FBNC	Facility Based Newborn Care
FIMNCI	Facility Based Integrated Management of Neonatal and Childhood Illness
FRU	First Referral Unit
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
IPHS	Indian Public Health Standard
MCH	Mother and Child Health
MMR	Maternal Mortality Ratio
MNH	Maternal and Newborn Health
MO	Medical Officer
MOHFW	Ministry of Health and Family Welfare
MPHC	Mini Primary Health Centre
MVA	Manual Vacuum Aspiration
NBCC	Newborn Care Corner
NRHM	National Rural Health Mission
NSSK	Newborn Shishu Surksha Karyakram
PHC	Primary Health Centre
PIP	Program Implementation Plan
RHS	Rural Health Statistics
SBA	Skilled Birth Attendants
SD	State Dispensary

SECTION A: INTERNSHIP REPORT

1.1 Introduction

North Eastern States (including Sikkim) have diverse topographical and socio - cultural situation within the region, within the state and even within the districts. In spite of continuous inflow of fund in health sector during last decade, health indicators, except Mizoram, have been poor particularly in Maternal Health, Child Health & Family Planning services in these states.

Although the topographical constraints of the N.E. states hamper in smooth service delivery to some extent particularly in hilly states of Arunachal Pradesh, Meghalaya, Nagaland, Sikkim and Mizoram, the performance of health sector in the region seems to be hampered to a large extent for the poor Management Capacity along with low fund absorption rather than its geographical terrain.

Providing at – scale, high – quality public health services in rural India is one of the country's greatest challenges. In 2005 the Ministry of Health and Family Welfare (MOHFW), Government of India, launched its flagship programme the National Rural Health Mission (NRHM) to improve rural access to quality primary health care. National Health Systems Resource Centre (NHSRC) has been set up under the National Rural Health Mission (NRHM) of Government of India to serve as an apex body for technical assistance. Established in 2007, the National Health Systems Resource Centre's mandate is to assist in policy and strategy development in the provision and mobilisation of technical assistance to the states and in capacity building for the Ministry of Health and Family Welfare (MoHFW) at the centre and in the states. The goal of this institution is to improve health outcomes by facilitating governance reform, health systems innovations and improved information sharing among all stake holders at the national, state, district and sub - district levels through specific capacity development and convergence models. Regional Resource Centre for NE states(RRC-NE) is the regional office of NHSRC set up in the North- East region of India to work for eight north- eastern states , has functional autonomy and implements a similar range of activities.

1.2 Organization Profile:

The Regional Resource Centre for the NE States (RRC - NE) established during November, 2005 by the Ministry of Health & Family Welfare, Govt. of India with financial assistance from European Commission. It has been working with the eight States of the North East to strengthen the health care needs in the states focusing on the short, medium and long run and plan for providing the missing technical and managerial capacity. NRHM being the flagship programme of Ministry of Health & Family Welfare, the RRC - NE assist the states to

develop capacities in planning, implementation and monitoring the health activities under National Rural Health Mission.

RRC - NE has its in – house expert in field of Public Health, Finance and Audit, Procurement and Logistics, Civil and Architecture and Consultants for Community Mobilization and HMIS located at HQ office at Guwahati. To coordinate and facilitate with all NE states, RRC has its State Facilitator located at Mission Directorate Office of NRHM in respective states. The core strategies of RRC - NE is to facilitate planning, implementation and monitoring of all health related programmes and activities in NE states particularly the NRHM. Efforts are being made during last few years to provide technical and managerial assistance as required for smooth implementation of NRHM activities in the states through expert from RRC and State Facilitators located in the states.

It shares the same mission, vision and policy statement with the NHSRC. NHSRC has a 21 member Governing Board chaired by the Secretary, MoHFW, Government of India with the Mission Director, NRHM as the Vice Chairperson of the board and the Chairperson of its Executive Committee. Of the 21 members, 11 are ex - officio senior health administrators, four from the states. Ten are public health experts from academics and civil society. The Executive Director, NHSRC is the Member Secretary of both the board and the Executive Committee. Director is the head of RRC – NE; he is assisted by senior consultants, consultants, programme associate and fellows.

Mission: Technical support and capacity building for strengthening public health systems.

Vision: We are committed to facilitate the attainment of universal access to equitable, affordable and quality healthcare, which is accountable and responsive to the needs of the people.

Policy statement: NHSRC is committed to lead as a professionally managed technical support organisation to strengthen public health systems and facilitate creative and innovative solutions to address the challenges that this task faces. In the above process, we shall build extensive partnerships and network with all those organisations and individuals who share the common values of health equity, decentralisation and quality of care to achieve its goals. NHSRC is set to provide the knowledge - centred technical support by continually improving its processes, people and management practices.

1.3 Practice areas:

A. Public Health & State Health System

B. Planning Process & Capacity Building

C. Community Process

D. HMIS & Evaluation Studies

E. Quality improvement

A. Public Health & State Health System

Public Health deals with the preventive and promotive aspect of health issues at the population - level. Though, private health institutions have a significant presence in the healthcare sector in India, the responsibility for preventive and promotive aspect of health lies largely with the government.

Being a developing nation, the inter region disparities are visible in this sector as well. Based on this, the Government of India has identified EAG and North Eastern States as areas which need more focus and support. The NE States account for only 3.8% of India's total population but the diverse and sparse population, geographical and socio - political constraints, along with connectivity to mainland and other states hamper the implementation of various health programmes

As with other regions of the country, the major issues with healthcare delivery in NE States are lack of infrastructure and manpower. This is further accentuated by the organizational & systemic and operational & management issues. In an effort to improve the delivery of healthcare, resources from NRHM as well as NE non –lapsable pool have been utilized for the development of infrastructure and removal of implementation bottlenecks. Despite this, poor managerial and technical capacity at the State and District level continue to be hindrances in achieving the desired results.

For enabling environmental and architectural change in the health sector, newer management structures at state, district and block level in the form of State Programme Management Unit (SPMU) and District Programme Management Unit (DPMU) having managerial and financial expertise have been set up to support the implementation process for each state.

Utilization of the health services is based on a very large extent on the perceived quality of the services. Also, ensuring quality standards will bring about uniformity in the services thus reducing the inter – regional disparities. To ensure quality improvement of health facilities, all the NE States are covered under the Quality Assurance Program of the hospitals. ISO certification and quality assurance is carried out in co – ordination with all the states. Focused supportive supervision & monitoring is carried out in the high focus districts as well as the difficult, most difficult and the inaccessible areas.

The Regional Resource Center for NE States (RRC - NE) has a dedicated team headed by the Director at the Regional as well as State level to provide support to all the North East States in the following critical areas:

- ✓ Situational Analyses of health indicators contributing towards overall improvement of the public healthcare system in the NE States - Functionality of Facilities, Service Delivery Outputs, Manpower Gaps etc.

- ✓ Identification of key areas for improvement and facilitate the States in strategic planning based on the HMIS reports of the NE States and published survey reports - NFHS, DLHS etc.
- ✓ District and State Programme Implementation Planning process.
- ✓ Assist the State / District PMSUs and Health Authorities in assessing the health situation and analysis thereof as part of the planning process.
- ✓ Appraisal of DHAPs and SPIPs before presentations during Sub Group and NPCC Meetings
- ✓ Assist the States in reworking the SPIPs in terms of incorporating observations from the Ministry and various divisions.
- ✓ Realignment of District Plans in accordance to final approvals by the NPCC
- ✓ Assessment of execution of various components of the DHAPs/SPIPs through Review Meetings, Field Visits & Periodic Physical Progress Reports.
- ✓ Undertake studies on the health issues of the north-eastern region.
- ✓ Regular supportive visits to the States with an objective to facilitate implementation of components of DHAPs with the objective of improving the public health care delivery system.

B. Planning Process & Capacity Building

The main objective of Capacity Building process for District Health management is as follows:

- ✓ The ability to draw up a district, block or village health plan.
- ✓ The ability to monitor and facilitate the implementation of a district or block health plan.
- ✓ The ability to draw up a facility development annual plan given the resources made available to the Rogi Kalyan Samiti/Hospital development committee so as to provide quality care in IPHS defined services.
- ✓ To develop the public health skills of the public health manager at the district level.(district RCH programme officers, malaria and other disease control programme officers, Chief medical officers and civil surgeons, AYUSH officers, block medical officers).

In order to achieve the above – mentioned objectives a cascade model for conducting the training at the regional and state level is followed. Also the trainings are conducted in a phased manner. The first phase of training for the State level Training of Trainers for all North – eastern states was conducted at State Institute of Health and Family Welfare, Guwahati(Assam) with technical and financial support from National Health System Resource Centre, New Delhi.

C. Community Process

The National Rural Health Mission (NRHM) promised an architectural correction of the health system which included "communitisation" as one of its key anchors and to enable the community and community based organisations to become equal partners in the planning process.

Community Mobilization is defined as a process through which action is stimulated by a community itself, or by others, that are planned, carried out, and evaluated by a community's individuals, groups, and organizations on a participatory and sustained basis to improve health. In addition to improving health, the community mobilization process also aims to strengthen the community's capacity to address its health and other needs in the future. A participatory process of communities identifying and taking action on shared concerns.

Thematic Areas:

- ✓ Facilitating in rolling out of ASHA training program at State / District / Block /Facility / ASHA.
- ✓ Assessment and Evaluation of ASHA Program.
- ✓ Regular Supportive Supervision of the ASHA program and Post – training follow - up support.
- ✓ Capacity building of district, block level community mobilizers
- ✓ Assessment of the functioning of VHSNC and Rogi Kalyan Samitis

Key Achievements and Work Report

- ✓ Facilitated the State and District level ASHA Trainers Training (Round 2) for Module 6th and 7th in NE states.
- ✓ Supportive Supervisory visits to ASHA level training (1st round - Module 6 & 7) in Assam and (2nd round Module 6 & 7) in NE states. The report prepared and shared with the States.
- ✓ Supported the state of Meghalaya in organizing review meeting of District Community processes Coordinators (DCPCs) and Block Programme Managers at Shillong.
- ✓ Orientation Training programme of District Community Mobilizers for Arunachal Pradesh and Nagaland was conducted.
- ✓ Regular follow up and submission of report on progress of ASHA programme.
- ✓ Organized Regional level Review meeting of ASHA Programme Managers and State Trainers in Guwahati supported by NHSRC.
- ✓ ASHA Evaluation completed in Nagaland and the final report shared with the State.

- ✓ Assessment of RKS in three states (Meghalaya, Manipur and Tripura) is completed and final report shared with the states.
- ✓ Assessment of VHSNC in three states (Meghalaya, Manipur and Tripura) completed and final report shared with the state.
- ✓ Assessment of best Sub Centres in Assam for service delivery under
- ✓ Assessment of best ASHAs in each district of Assam under process. process.
- ✓ Assessment of VHSNC in Assam under process.

HMIS & Evaluation Studies

Health management information incorporates all the data needed by policy makers, clinicians and health service users to improve and protect population health. Few countries in the world today have effective and comprehensive systems in place to gather this data.

Under NRHM facility based reporting system with usable data elements has given an opportunity to use the information locally and to use the data for planning and corrective action.

Thematic Areas

- ✓ Maintenance of Record Keeping & Timely proper reporting.
- ✓ Facility based Data uploading in HMIS web portal.
- ✓ Capacity building of the different level of Data Managers.
- ✓ Finding the correlation between different indicators to improve data quality.
- ✓ Use of information for planning & program management.
- ✓ Analysis & Review of the data to improve data quality and necessary feedback to the NE States.
- ✓ Conducted different surveys.
- ✓ Frequent field visit at different level of facilities to improve the reporting System.

Key Achievements and Work Report

- ✓ District wise analysis of HMIS report for FY 2011 - 12 and shared with the respective states.
- ✓ District wise analysis of HMIS report for 2012 - 13 (up to 3rd quarter) and census report done to facilitate SPIP/DHAP planning and shared with the respective states.
- ✓ Periodic review of HMIS data during state / district visit and suggestive correction where ever required.
- ✓ Facilitated the training on improvement of data quality for District and Block data Managers on HMIS in Manipur and Arunachal Pradesh.
- ✓ Conducted the training programme on quality issues of the Health facility level data entry in Sikkim and Meghalaya.
- ✓ Training on MCTS in Meghalaya (Tura and Shillong) conducted.
- ✓ MNGO evaluation study report of Arunachal Pradesh and Tripura completed and shared the report with the state.
- ✓ MNGO evaluation of Sikkim completed and draft report shared with the state.
- ✓ Coverage Evaluation Survey (2011-12) on Maternal and Child Health for Assam completed and report shared with the State.
- ✓ JSY evaluation study done in Meghalaya with support from UNFPA. The report submitted to UNFPA.
- ✓ Field survey on Coverage Evaluation Survey (2012-13) on Maternal and Child Health for Assam completed and analysis of data under process.
- ✓ Coverage Evaluation Survey on Maternal and Child Health in Nagaland started.
- ✓ Estimation of IMR and MMR in Nagaland started.

E. Quality improvement

Universal access to care under NRHM, implies universal access to quality care. The Quality improvement at the Public Health facilities looks into organisation of the work processes critical to health care delivery, which helps in ensuring that investments made in term of money, material and human resources are optimally used to realise expected outcomes. It helps in delivering quality services those are safe and satisfying to users leading better utilization of facilities. RRC-NE's mandate is to make quality improvement an inherent part of service delivery at public health facilities.

The RRC-NE ensures that every public health facility would have a quality assurance program in place. In such an approach every facility is assessed and scored against explicit quality standards and after achieving a certain benchmark gets certified by an external agency. Given the nation's diversity in both health systems development and subjective readiness for assuring quality of care, the quality approach needs to ensure essential norms for facility management, regulatory compliances, clinical protocols & guidelines but at the same time be flexible enough to accommodate variable (essential & Desirable) standards of quality certification objectively and provide scope for innovations.

Department/ Areas worked

I was posted as an intern in the Quality Improvement Division. The thematic areas of Quality Improvement division are:

- ✓ Support to State for Quality improvement.
- ✓ Capacity Building.

Key Achievements and Work Report of the Department:

- ✓ Supportive supervisory visit to IGM Hospital, Agartala, Churachandpur District Hospital, Manipur and MMC Hospital, Guwahati.
- ✓ Provided support to 8 nos. of ISO 9001:2008 certified hospitals and facilitated 2nd surveillance audit.
- ✓ Assessment of District Hospitals in Assam for quality service under process.
- ✓ A 5 days Hospital management training programme was conducted by RRC-NE for 27 districts of Assam. 228 participants (from 25 districts) have already been trained.

1.5 Problem/issues in the various areas

As an intern I did not experience any issues that may create problem in smooth function of the organization.

1.6 Observations/learning

✓ I have learnt the essential features of a Quality Management System(QMS).

✓ I have learnt the process involved in the survey of public health facilities right from the preparation of protocol through obtaining co-operation from respective Joint Directorate of NRHM till approval of budget and training of field investigators.

✓ I came to know the shared values on which it works. Accountability, Ambition, Collaboration, Creativity and Integrity are the key values that are shared by the organization. Team work and transparency is the key to work in the organization.

✓ The employees of the organization need to go for frequent travelling for different project activities in all the North-Eastern states. It reflects the extent of dedication, perseverance and interest that are required to work in the field of public health.

1.7 Conclusion:

My internship experience is a myriad of memories which gave me a golden opportunity to get exposure with an environment working with great commitment and accountability to raise the public health standard across North-Eastern States of India. I am taking away with me an unparalleled wealth of knowledge and intricacies of execution. Time eloped and I had completed my internship. At the very moment make me nostalgic once again and I think the world of public health is challenging and demands preparedness every moment, a mixture of everything; innovative as well as knowledge beyond a text book. I remember a quote published in the Hindustan Times-

"Despite all the progress, wide disparities and inequalities in women's access to healthcare persists. Sadly access largely depends on where one lives, how educated one is, how rich and which community one belongs".

Thanks to such public health organizations like Regional Resource Centre of NE States, who have been working to change this inequity and make the world healthier, better and more just place for all.

SECTION B: DISSERTATION REPORT

CHAPTER-1
INTRODUCTION

Reproductive and Child Health (RCH) care is an essential component of the primary health c the provision of "Health for All" through primary health care approach. The RCH programm effectively bring all the RCH services within easy reach of the community. Since the Eigh was given to the consolidation of existing health infrastructure rather than on expansion with the health services through strengthening of physical facilities like provision of essential eq consumables, construction of buildings and staff quarters, filling up of vacant posts of medic training of staff.

Infrastructure has been described as the basic support for the delivery of public health activ Report on the Health Survey and Development Committee (also known as Bhore Commi existing medical and preventive health organization" as one of reasons for India's poor healt

The National Rural Health Mission (NRHM) was launched nationwide in 2005 and one facilities fully equipped according to Indian Public Health Standards, 2006 (1), to meet pec health care. The National Rural Health Mission (NRHM) Strives to Provide Quality Health c equitable manner (2). India is committed to achieve the reduction in maternal and infant mo Policy-2000. The Maternal Mortality in India continues to remain unacceptably high. In initiated the Child Survival and Safe Motherhood Programme in 1992 to upgrade the existin district hospitals into First Referral Units (FRUs), to be equipped for providing delivery o women with complications.

To augment these efforts, National Rural Health Mission (NRHM) aims to improve the avai care for safe motherhood and child survival through operationalisation of 24X7 PHCs and emergency obstetric and child health services close to the client's home 24-hours a day, all effect, the point of "first referral" for the rural community, such round the clock service percentage of institutional deliveries substantially and thus help in the reduction of maternal

To improve the quality of the care at PHCs, the NRHM has developed the standards called following the launching of the National Rural Health Mission (NRHM) on 12th April 2005 (provide healthcare, which is quality oriented and sensitive to the need of community (4)

As a necessary adjunct to the delivery services, provision of newborn care and e NBCC/NBSU/SNCU at each level of health facility would help in reducing infant mortality.

Maternal health services in the public health sector are categorized into Levels 1, 2 and 3 i specific HR, infrastructure, and service delivery criteria. To deliver quality MCH services it in designing, organizing, and managing MNH services at various levels including specific rec supplies, human resources, capacity building, recording/reporting at L1, L2, L3 MCH centres.

Huge and strategic investments have been made in strengthening infrastructure, building capa uninterrupted flow of drugs and supplies. Despite the encouraging improvements and e resources, issues of inequity in access and poor quality in health care persist.

1.1 Problem Statement:

There is widespread and growing demand for primary health care services in developing healthcare sector has an important role in providing health care to rural households and to

India's contribution to global neonatal death is 27%. Around 36% of all neonatal deaths o partum period and the first 24 hours of postpartum period contribute to 46% of materna mortality continues to be a cause for concern despite investment from Central and State gov has decreased from 390 (Sample Registration System, 2007- 09) to the current figure of 328 India being signatory to Alma Ata Declaration is committed to attaining Health for all thro The ultimate objective of a health - care delivery system is to ensure that the rich and p become disability and wealth is not an advantage towards accessibility of health care. In and accountable health care system to all, especially underprivileged and vulnerable sect emphasized towards improvement in health care infrastructure in demographically backwar Thus, apart from increased budget the involvement of people in the form of Village Hea Health Societies, Rogi Kalyan Samities, etc. the emphasis is on improvement of basic health human resource, material, drugs, equipments, transport system, etc (6).

The National Rural Health Mission seeks to provide effective healthcare to rural populatio focus on 18 EAG states including Assam, which have weak public health indicators and / o Project of the Government of India has stipulated norms for each health facility considering adequate for rendering quality RCH services, yet the public health facilities of Assam is st infrastructure and human resources.

Timely provision of emergency obstetric care and routine essential obstetric and newborn ca of Maternal and Neonatal morbidity and mortality. Mother and newborn is a dyad, hence th to provide care to the mother from antenatal to postnatal period. Essential newborn care continue thereafter. To accelerate the decline in MMR it is necessary to improve the qualit health facility. During the field visits, it has been observed that there is a lack in knowledg friendly facility which renders quality services with dignity and respect to the mother and lack of standardization of design in terms of infrastructure, equipment, HR, infection pre models have been major bottlenecks in ensuring quality maternal and neonatal health services

Facility survey has been envisaged as an important activity to assess the existing status monitoring progress. NRHM has developed the Indian Public Health standards which infrastructure, equipments, drugs, services, manpower, training and quality control for all ty PHC, CHC & district hospitals of different sizes. As envisaged under National Rural Hea institutions in rural areas are to be upgraded from its present level to a level of a set of Standards (IPHS)". The Indian Public Health Standards are the benchmarks for quality Public health care organizations and may be used for assessing performance of health care d The present study was conducted using checklist prepared on the basis of IPHS and M uniform and standard designs and protocols for setting up state of the art maternal and Maternal and Newborn Health toolkit has been prepared by the Maternal Health Division Welfare to provide quality maternal and newborn health services at health facilities in In room/OT/wards.

The present study aimed to examine opportunities for strengthening intra - partum care at th the current status of rural primary care model of labour rooms in Assam. Reviewing the cu from different surveys conducted in Assam, the researcher chose the research topic to analy and Newborn Care Corner (NBCC) of Kamrup (Rural), a district of lower Assam, which death in Assam; so that further recommendation can be put forwarded for the improvement as for quality intra - partum care and newborn care.

1.2 Objectives of the study

General objective: To assess the existing status of labour rooms in public health facilities laid down in the MNH Toolkit.

Specific objectives

1. To assess the availability of infrastructure, human resource and training, equipme miscellaneous items along with service delivery and recording system in Labour Ro health facilities in Kamrup (R).
2. To assess the knowledge understand regarding standard measures to be followed i members.
3. To assess the compliance to quality standard.
4. To suggest measures for the enhancement of functioning of the Labour room.

1.3 Hypothesis

- H0: The Labour rooms of public health facilities do not fulfill the criteria as per IPH
- H0: There is no awareness regarding standard measures to be followed in labour roon
- H0: The Labour room of public health facilities has no compliance as per the standard

1.4 Research variables: Standard and knowledge.

1.5 Demographic variables: In this study demographic variables are age, sex, education/ leve experience.

CHAPTER - 2
REVIEW OF LITERATURE

Advent Health Care Group conducted a facility survey in Assam for the Mission Director was conducted across 24 districts covering a total 5,425 health centres including PH questionnaires used in the study were developed on the basis of IPHS format although some format to suit the state's specific requirements. The study found that most of the CHCs furniture like delivery table, saline stand; 94.1% of CHCs have Labour room. Among Bloc services, 96% of BPHC has at least one medical officer out of which 79% has 2 or more least one staff nurse while 28.2% centres have 3 or more staff nurses to provide 24 hours 84.6 percent of BPHCs and labour table are available in 93.2 percent facilities. Among instrument is available in 87.8 percent BPHCs where as stethoscope is only 55.4 percent, I in only 79.7 percent BPHCs. Only 17% of MPHC provide 24 hours delivery services. Lab availability of electricity (39.1%) and power back up facility (3.2%) is very low. No distr essential newborn care equipments such as resuscitation bag, radiant warmer and photothera hours delivery service. Nearly 85 percent of SDs in the state has at least a medical officer. is either manned by an AYUSH doctor or a pharmacist. Nearly 42.7% SD has labour roo infrastructure facilities like water supply, power backup (generator) are required by almost district in Assam has adequate number of essential newborn care equipments like Infant Photo – therapy unit.

Biswas Devika et al conducted a study on "Adherence to IPHS guidelines: a study of the Bihar. The objective of the study was to assess the present status of health facilities accor Bihar. All existing CHC (1), PHCs (5), APHCs (17) and SCs (85) were included in the sa version was used to prepare a checklist to elicit information from the facilities. The formats areas such as services, human resources, investigation facilities, physical infrastructure, equ quality control. The study concluded that there is also a huge shortage of health infrastructu sub centres (SCs), 72 % primary health centres (PHCs) and 20% community health centres (CH the total required health facilities according to the Rural Health Statistics, compiled by the Government of India in 2008. The study recommended that RKS (Rogi Kalyan Samiti) nee responsibility.

Sodani Rai Prahlad et al conducted a study on "Assessing Indian Public Health Standards case study with special reference to newborn care services". The main objective of the prese with respect to Indian Public Health Standards (IPHS) for availability of infrastructure, hum essential newborn care services at 24 × 7 primary health centres (PHCs) of Bharatpur district were selected for the study. Data were collected from medical officer in - charge from the data on infrastructure, human resources, investigative services and newborn health care questionnaire. It was found that the availability of operation theatre, telephone and E - mail room was available at almost all the 24 × 7 PHCs while nearly 75% of the 24 × 7 PHCs Shortage of human resources, especially laboratory technician and pharmacist were observed. 24 × 7 PHCs have fully equipped newborn corner. The study concluded that the availability facilities for newborn care services at the 24 × 7 PHCs were not satisfactory as per the p priority to strengthen OT, investigative facilities and communication facilities at the 24 availability of pharmacist/compounder shall be as per IPHS norms at the 24 × 7 PHCs. New PHCs should be provided adequate equipment/items as recommended by the IPHS so as provide newborn care services in the rural areas.

Srinath V et al conducted a study on "NRHM and IPHS - Standards in Primary Health Car

to assess the compliance of PHCs according to the IPHS. A sample of 5 PHCs was rand Bangalore urban district. Both quantitative data using the IPHS survey tool and qualitative (KII) were collected. There were great variations between the PHCs in terms of manpo supplies. The medical doctors in the PHCs were not aware of the IPHS. Interviewees opinec to be addressed and adequate number of equipments in working condition needs to be pro favoured the standards, which increased the patient inflow by improving the quality introduction of the IPHS for PHCs is an important factor in the improvement of the quality of standards and norms alone cannot change or improve the facility and the services provid of gaps for the targeted approach to be implemented. The issue of the functionality of h account seriously and alternatives designed for addressing the staff shortages.

Malhotra Sumit et al conducted a study on "Assessment of essential newborn care services district of India". The study examined newborn care services, with a focus on essential nev each from two states in India. Nagaur district in Rajasthan and Chhatarpur district in secondary - level facilities from the districts two district hospitals (DHs) and four community where maximum institutional births within districts were taking place. The assessment inclu and competency assessment of service providers, using structured checklists and sets of qu competency were: resuscitation, provision of warmth, breastfeeding, kangaroo mother care, corners existed within or adjacent to the labour room in all the facilities and were larg facilities. Resuscitation bags and masks were available in four out of six facilities, with sizes. Two CHCs in Chhatarpur did not have suction device. The average knowledg resuscitation was 76% and, in the remaining ENC domains, was 78%. The corresponding av highlighting a huge contrast in knowledge and skill scores. This disparity was observed for knowledge domain scores were largely satisfactory (>75%) for the majority of providers in breastfeeding, the scores were only moderately satisfactory (50-75%) for all other knowled domains were predominantly non - satisfactory (<50%). The findings underpin the need for in making newborn care corners functional and enhancing skills of service providers to reduce

Thakor Nilesh et al conducted a cross – sectional study on "Quality assessment of facili Centres in Rajkot District". The objective of the study was to assess the quality of fac centres as per IPHS guidelines. The study was conducted in 14 PHCs randomly selected, Pretested close ended questionnaire was used. The facility was assessed according to IPHS g PHCs was located within the village area and 28% was within 1 KM from village; Doctor, available in 92%, 57%, 100% and 100% PHCs respectively. Residential facility is available Doctors, staff nurses and health worker are trained for IMNCI and ANC services. The stu be given to work at remote places and all the post of staff should be filled up as early as

Shah Rakesh et al conducted a study on "Availability of services and facilities at Primary Gujarat." This is a cross sectional study conducted among 10 PHCs of Ahmedabad district randomly one from each Talukas from the list of PHCs functioning in the district except the C study because of its proximity to Ahmedabad city & also difficulty in defining the areas precisely. was used for the study. The questionnaire was formed of various questions related to human resour information regarding various equipments and instruments existing in the PHC. The study rev ranging from 11.3% to 30%; significant staff residing >30 Kms away from the facility; inade inadequate supplies, functional PHC vehicle and, bed paucity. The study reveals the necessity for su with their envisaged role in health care delivery in line with our national guidelines.

CHAPTER-3
METHODOLOGY

3.1 Study Design and setting: An exploratory quantitative study design was adopted. The

by the dissertation organization. In the study district Kamrup Rural, there are 12 Block PH study covered 4 Block PHCs out of which 3 serves as CHC/FRU, 3 Mini PHCs and 3 SD of Assam. A total of 10 health centres were selected randomly to cover under the study. F 30 samples were selected conveniently.

3.2 Study Area: The study was conducted in the Kamrup Rural district of the state Assam.

3.3 Data collection technique : The data was collected for a period of 2 weeks (6^{th} to 22 observation, record review and interview method.

3.4 Study Tool: For assessment of the facility and knowledge level of key staff members ol method were used. The data collection was carried out using checklist developed by RR modifications were made according to the type of health facility. The checklist was develo guidelines given in MNH Toolkit. For the assessment of knowledge, quantitative data Interview (KII) of Medical Officers and nurses using a semi structured questionnaire devel and handbook for Medical Officers during training period. The detailed pro forma used in th 3.

Tools were divided into 2 sections

SECTION A: Deals with demographic details such as age, sex, education/ level of training, prof staff members; General profile of the health facilities such as name of the block, type of the expected live birth.

SECTION B: Deals with semi – structured questionnaires to assess the level of knowled followed in Labour Room and semi – structured checklist to assess the existing status of labou

3.5 Data analysis: Collected quantitative data were entered in SPSS version 16.0 and analys analysed calculating average percentage.

3.6 Key research questions:

1. Do Labour rooms of public health facilities meet the standard laid down in the IPHS
2. Are the staff members of Labour room aware about these standards?

3.7 Challenges/constraints faced during the study: During the study I faced several mentioned below:

1. Delay in getting approval for the study from the Joint Directorate office of the st session in Assam.
2. Untimely rains and weak transportation facilities in some remote areas.
3. Non- availability of staff due to long holidays on behalf of Bihu festival.

3.8 Limitations of the study:

1. The study required data to be collected from selected Block PHCs, Mini PHCs an study district of the state. Because of the difficult terrain and closing of some SD had to shorten the interview period to complete one facility study in one day.
2. The data were mainly provided by the staff nurses and ANM. Many a time responde of labour room equipments as they were not kept particularly for the labour room a immunization room. Moreover with the limited nursing staff it was difficult for the while to assist in the record review and staff interview during the duty hours.

3. Some of the information like catchment population, expected live birth, targeted pop number of newborn/mothers referred were not available with the staff ; so the researc unit of the respective block and sometime had to wait for long hours to get th schedule of the data manager.
4. A common pro-forma was used for collecting data which was based on the IPHS the pro-forma needed more customisation to capture some of the information as example- Some of the equipments, medicine and

Services are not applicable for all levels of facilities. So, in that case the checkpoints for calculating scores.

3.9 Expected outcome of the study: The study provided new insight for researchers and ho achieving the best possible quality of maternal and child health services as the study result in facilities along with key recommendations which in turn will help in developing quality in facilities.

3.10 Approval of the study: Approval for the study was obtained from the concerned auth well as from office of the Joint Director of the study district, Kamrup(Rural) of Assam obtaining verbal consent of the subject.

CHAPTER-4
RESULT

In the study district Kamrup Rural, there are 12 Block PHC, 27 MPHC and 22 SD. The fa of which 3 serves as CHC/FRU, 3 Mini PHCs and 3 SD currently functional in Kamrup R centres were covered under the study. Block wise number of centres of various categories Table 4.1:

Table 4.1 List of Block PHCs and its corresponding MPHCs and State Dispensary covere

Name of the BPHC	Name of the PHC	No. of the facilities covered in the survey	
		MPHC	SD
Boko BPHC/CHC/FRU	Bamunigaon MPHC Bhalukghata SD Chatabari SD Deochar MPHC √ Dhupguri SD Hahim SD Jambari MPHC Tarabari SD √	1	1
Kamalpur BPHC	Dorakohora SD √ Guiya SD Puthimari MPHC √	1	1

SL No.	L3(FRU-CHC)	L2(24x7 PHC/Non FRU CHC)	L1(SC/Non 24X7 PHC)
1	Boko BPHC/CHC/FRU	North Guwahati BPHC	Puthimari MPHC
2	Kamalpur BPHC	Changsari SD	Dorakohora SD
3	Sualkuchi BPHC	Deochar MPHC	Suktaguri MPHC
4	----------	----------	Tarabari SD
Total	3	3	4

North Guwahati BPHC	Athiaboi Banmaja PHC Baihata MPHC Changsari SD √ North Guwahati OPD Phulung MPHC Suktaguri MPHC √	1	1
Sualkuchi BPHC	Bongsor PHC Dampur SD Halogaon MPHC	0	0

√ represents the facility selected for the study.

Under Boko BPHC out of 8 PHCs every 4th PHCs were selected, under Kamalpur BPHC were selected, under North Guwahati BPHC out of 6 PHCs every 3rd PHCs were selected PHC could be covered as study unit. The study depicts that out of 10 surveyed health facili

Table 4. 2 depicts the categorization of the selected health facilities in to L1, L2 and L3 lev

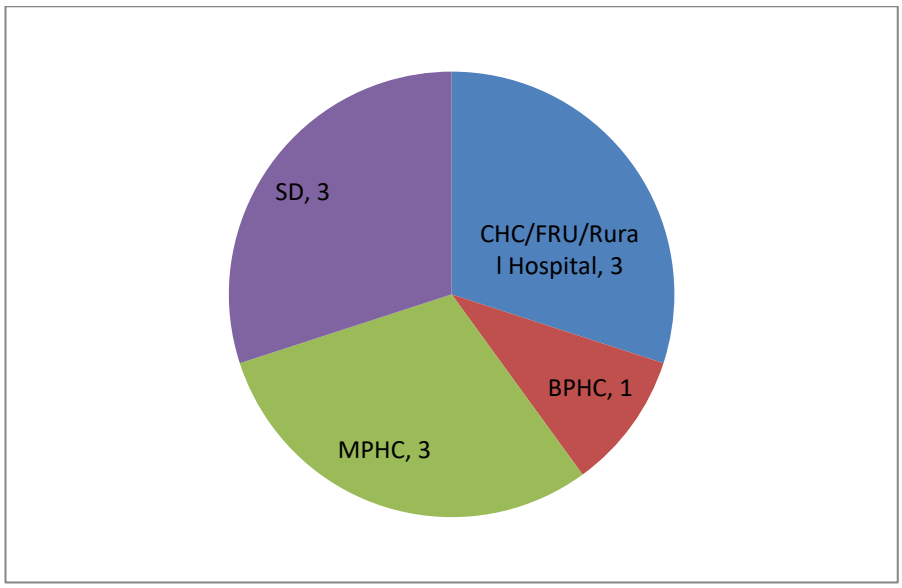


Figure 4.1 Distribution of different types of institutions covered under the Facility Survey

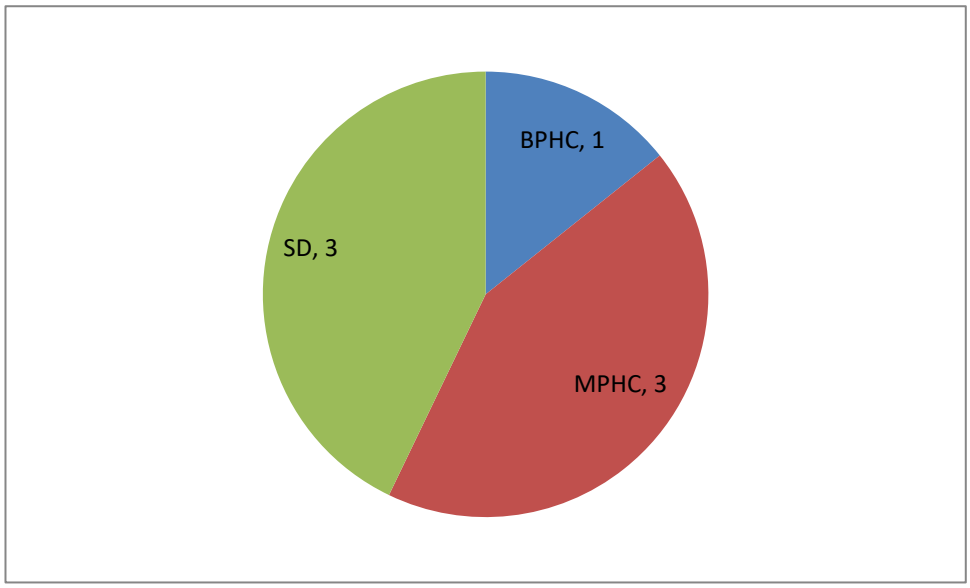


Figure 4.2 Distribution of different types of institutions covered as PHC under the Facility Su

Percentage distribution of health facilities by availability of Physical Infrastructure

Availability of a well equipped and fully functional labour room is the most crucial cor institutional delivery. Labour rooms are available in 8 health facilities out of 10 study u

facilities available in labour room is given below:

Table 4.3: Distribution of health facilities by availability of Infrastructure

Table 4.3 Availability of Infrastructure (n=8) as per IPHS	
Monitoring parameters	**Percentage of health facilities(n%)**
Without water leakage/ Dampness from the room	87.5
Intact door and windows with panes	100
Curtain and side screen between Labour tables	62.5
Clean Labour Room	62.5
Washbasin inside Labour Room with running water and soap	87.5
Wash basin with elbow tap	0
Attached Toilet with Labour Room	87.5
Clean toilet and running water supply	62.5
Table 4.3 continues…. Power Supply in Labour Room	100
Backup power supply (Generator or Inverter)	62.5
Functional fan, Bulb, Tube within Labour Room	100
Functional room heater for winter	25
High capacity torch with rechargeable cells	62.5

Table 4.4: Distribution of health facilities by availability of Equipments and Accessories

Table 4.4 Availability of Equipments and Accessories	
Monitoring parameters	**Percentage of health facilities**
Labour table with mattress, sheet, Macintosh, Foot-rest, Kelly's pad	50
Suction Machine (Electrical / Foot operated)	37.5

Mobile lamp with stand	12.5
Watch/ clock with second hand	50
Delivery tray	75
Episiotomy tray	75
Medicine tray	25
Emergency drug tray	25
Baby tray	75
MVA tray	0
Stethoscope	100
Foeto-scope	75
BP apparatus	100
Weighing machine for newborn (Preferably Digital)	100
Thermometer (Digital)	50
Measuring Tape	25
Table 4.4 continues.... Stretcher with trolley	50
Wheel Chair	62.5
Focused lighting	62.5
Stool for birth companion	37.5
Autoclave drums	75
Electrical sterilizer	50
Refrigerator	0
Pulse oxymeter	12.5
Oxygen cylinder with flow meter tube + Mask + Wrench	62.5
Partograph	25
Coloured bin for bio medical waste management (RED)	62.5
Coloured bin for bio medical waste management YELLOW)	87.5
Coloured bin for bio medical waste management (BLUE)	62.5
Hub cutter	12.5

Puncture proof container	0

Table 4.5: Distribution of health facilities by availability of Equipments and Accessories

Table 4.5 Availability of Equipments and Accessories	
Monitoring parameters	**Percentage of health facilities**
Radiant Warmer	75
Phototherapy unit	25
Baby Scale	75
Oxygen hood (Neonatal)	25
Mucus extractor with suction tube and a foot operated suction machine NG tubes	62.5
AMBU bag (Size- 0 and 1) / Bag & Mask	87.5
Feeding tubes (Nasogastric tube)	50
Table 4.5 continues… Laryngoscope and Endotracheal intubation tubes	25

Table 4.6: Distribution of health facilities by availability of Human Resource (*As per case MO is 1-2; for 100-200 deliveries/month requirement of MO is 4. NE: Not essential)

Table 4.6 Availability of Human Resource									
Human Resource	Minimum requirement as per MNH Toolkit			Facilities fulfilling the norms					
	L3	L2	L1	L3		L2		L1	
				No.	%	No.	%	No.	%
Medical officer(MBBS)	*4	1 to 2(on call after OPD hours)	NE	3	100	1	33.3	1	50
Paediatrician	1	NE	NE	2	66.7	NE	NE	NE	NE
Obstetric & Gynaecology specialist	1	NE	NE	3	100	NE	NE	NE	NE
Anaesthetist	1	NE	NE	3	100	NE	NE	NE	NE
Staff Nurse	4	2	NE	3	100	2	66.7	NE	NE
ANM	4	2	2	2	66.7	1	33.3	1	50
Laboratory Technician	2	2	1	3	100	1	33.3	2	100
Counsellor/Health educator	1	1	1	3	100	0	0	0	0

Cleaner	4	3	1	0	0	0	0	0	0

Table 4

by training status of Human Resource

Table 4.7 Availability of trained **Human Resource**

Type of training	No. of staff trained					
	L3		L2		L1	
	No.	%	No	%	No.	%
MO trained with BEmOC	0	0	0	0	NE	NE
MO trained with FIMNCI	1	33.3	0	0	NE	NE
MO trained with NSSK	3	100	1	33.3	NE	NE
SBA trained SN	3	100	0	0	1	50
SBA trained ANM	0	0	1	33.3	2	100
NSSK trained SN	2	66.7	1	33.3	1	50
NSSK Trained ANM	1	33.3	1	33.3	2	100
FIMNCI trained SN	1	33.3	1	33.3	NE	NE

NE : Not essential

Distributions of health facilities by equipments available in Delivery Tray

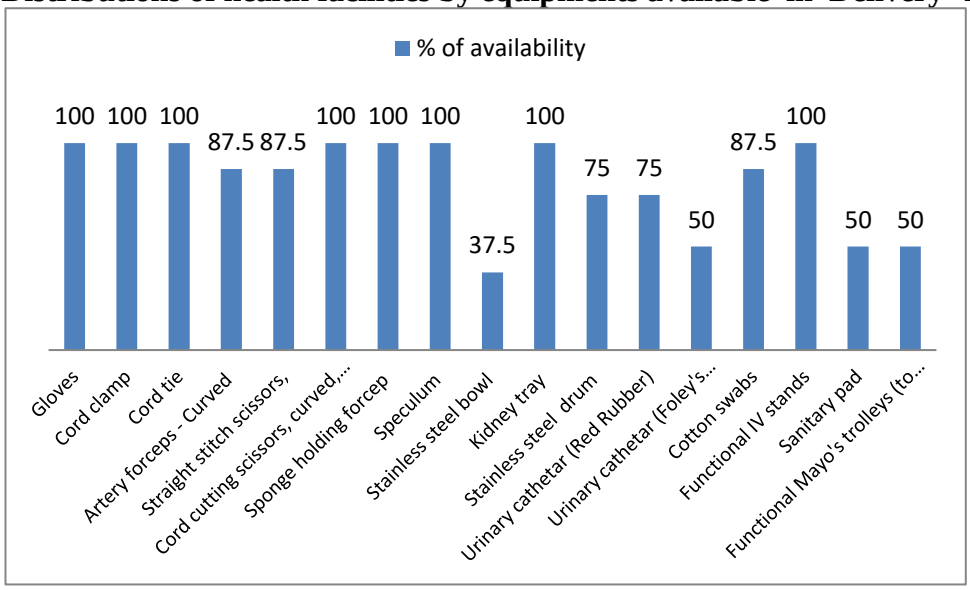


Figure 4.2: Distribution of health facilities by availability of equipments in Delivery Tray

Distribution of health facilities by availability of Essential Drugs

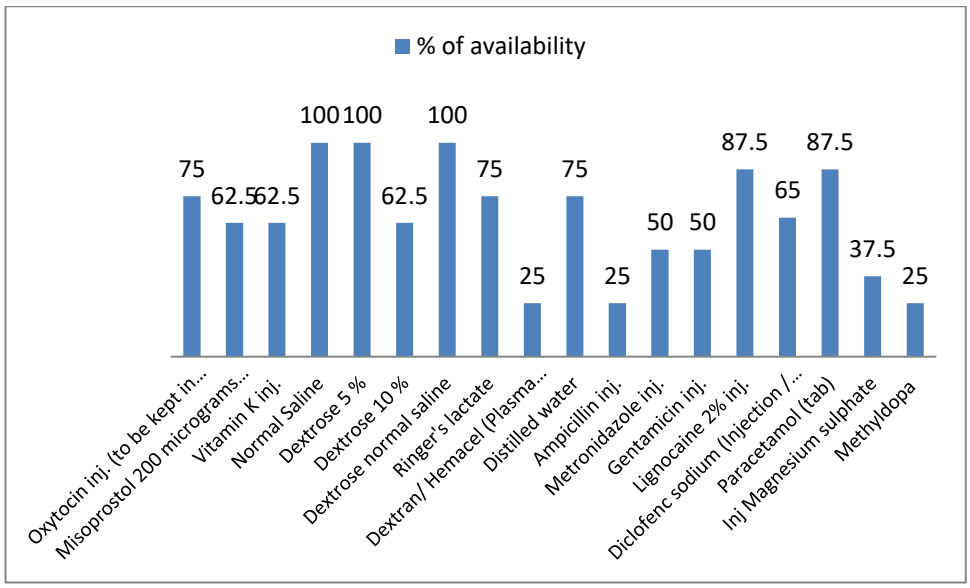


Figure 4.3: Distribution of health facilities by availability of Essential Drugs

Distribution of L3and L2 health facilities by availability of Emergency Drugs

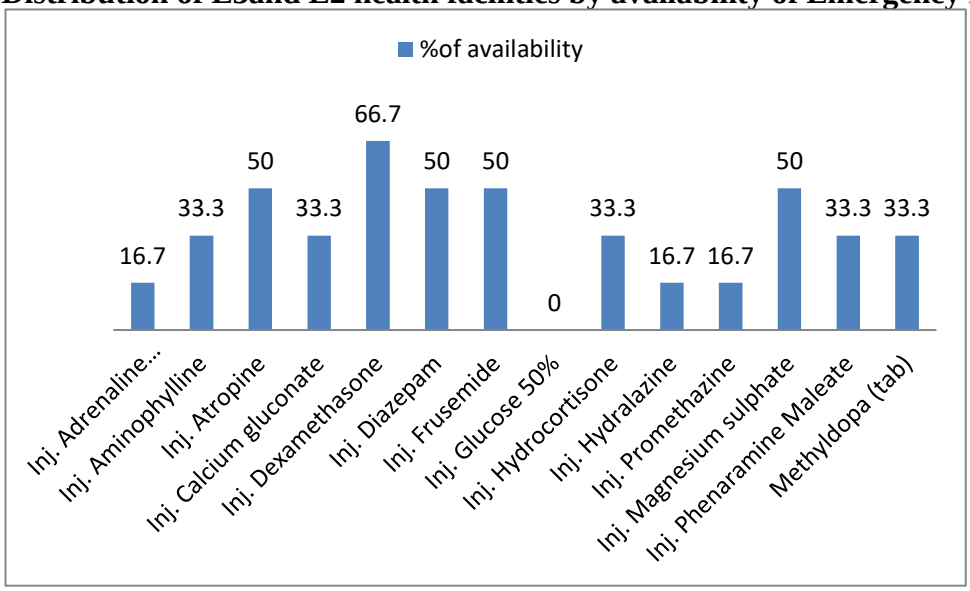


Figure 4.4: Distribution of L3 and L2 facilities by availability of Emergency Drugs

Percentage of health facilities by availability of Dressing materials, Antiseptics and Disinfecta

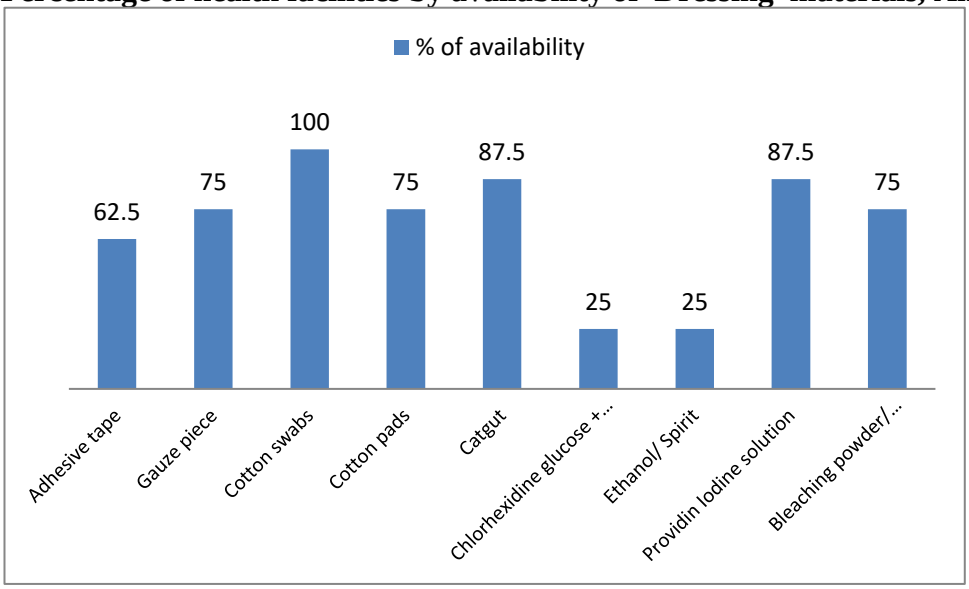


Figure 4.5: Percentage of health facilities by availability of Dressing materials, Antiseptics and Disi

Availability of essential services in the Labour room and NBCC of the facilities

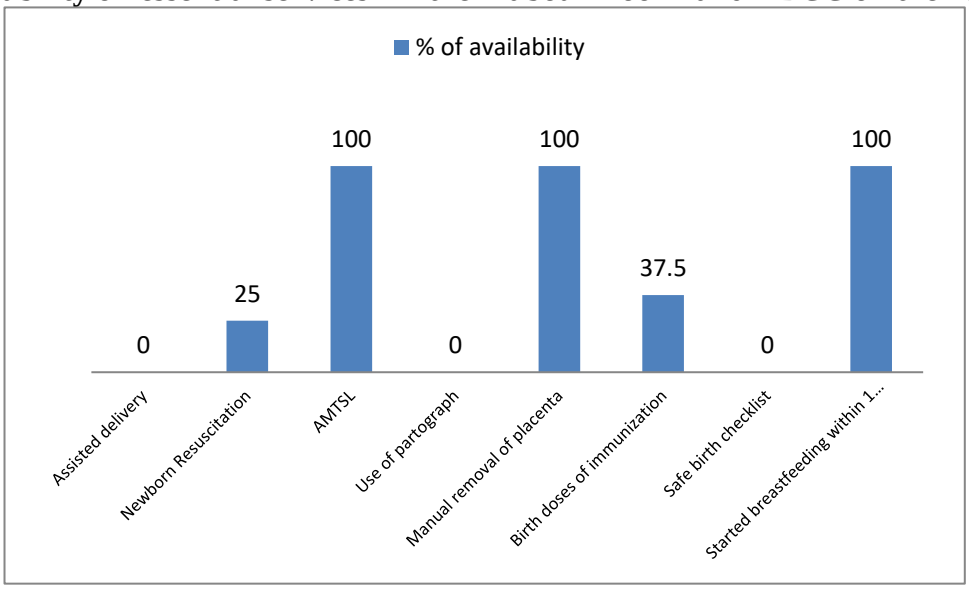


Figure 4.6 : Availability of essential services in Labour room and NBCC

Percentage distribution of health facilities by availability of Records:

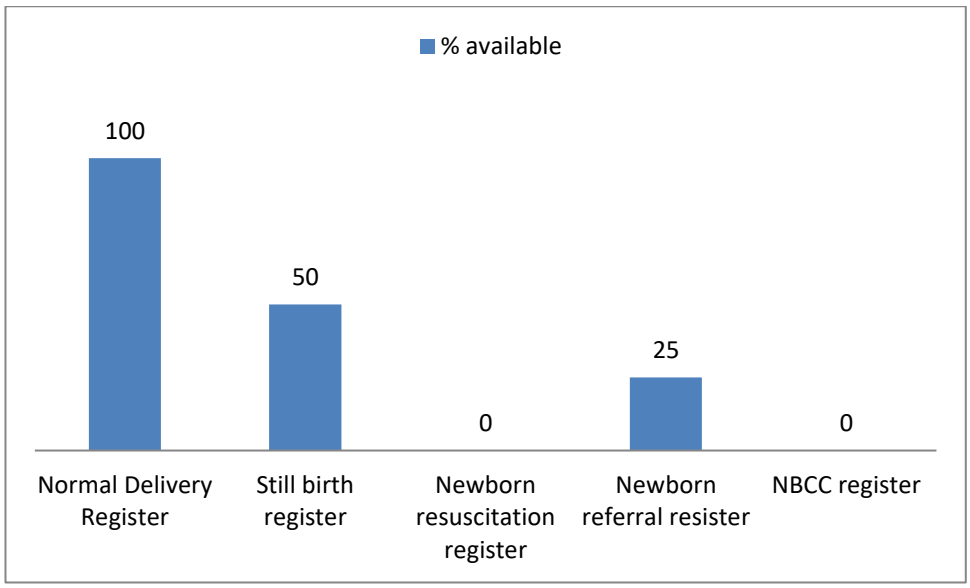


Figure 4.7 : Percentage distribution of health facilities by availability of Records

Distribution of health facilities by availability of Supplies and Miscellaneous items in Labour

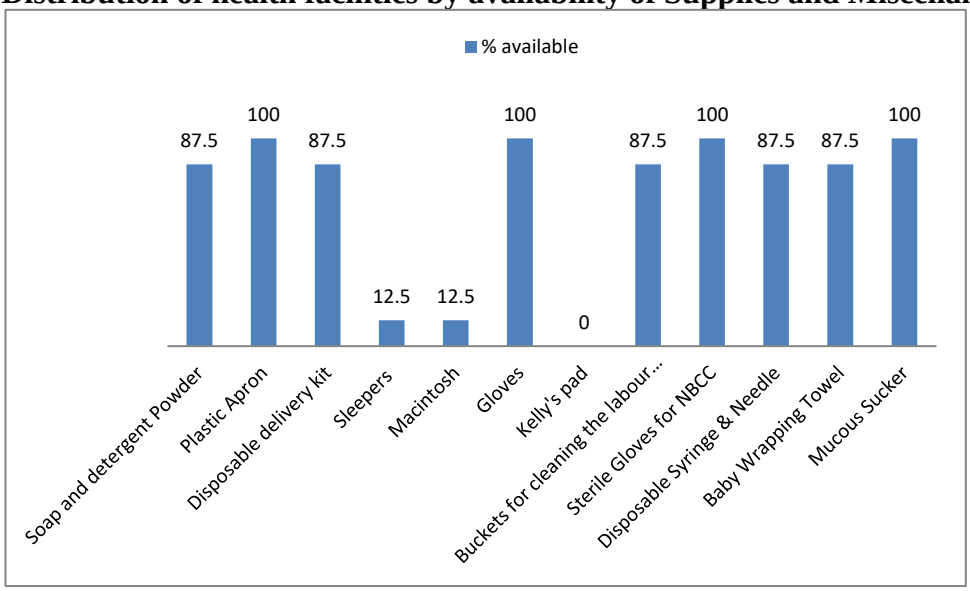


Figure 4.8: Availability of Supplies and Miscellaneous items in LR & NBCC

Providers Knowledge regarding protocols and guidelines

The study assess the knowledge regarding standard measure to be practiced in Labour Roon

nurses. A total of 30 healthcare providers, 3 from each health facility were assessed. Among general- duty medical officers), 1 Rural Health practitioner, 11 staff nurses and 9 ANM. Th different domains such as Essential Obstetric care and knowledge of emergency drugs, Essen are assessed. Different questionnaires are used for doctors and nurses. The individual domai nurses are presented in Table 4.8 .

Table 4.8 : Average percentage distribution of knowledge of providers

Table 8 Average scores (%) in different domains			
Categories of nursing personnel	Essential Newborn Care	Essential Obstetric Care	Infection Prevention
GNM	77.7	70.8	70.5
ANM	71.1	57.8	41.7

Th an as tal lal pe

RHP by their knowledge of protocols and standard to be followed in LR in the domain of

Table 4.9 . Average scores (%)		
Categories of Health professional	Essential Newborn Care	Essential obstetric Care
Medical Officer	71.1	68.9
RHP	20	20

Table 4.10 presents the results in different domains based on grading of knowledge into thre scored moderately satisfactory scores for the most of the knowledge domains, except infecti satisfactory.

Table 4.10. Knowledge of healthcare providers (n=30) in different domains			
Domain	Satisfactory n(%)	Moderately satisfactory n(%)	Not satisfactory n(%)
Essential newborn care	40	56.7	3.3
Essential obstetric care	33.3	40	26.7
*Infection prevention	35	20	45

*n=20

(Satisfactory (domain score more than 75%), moderately satisfactory (50-75%), and not satisfactory (less than 5 answers in each domain.)

GNM performed better than ANM. Among the doctors, all specialists (n=3) had satisfactory officers (n=6) and RHP. Among nurses GNM nurses(n=11) had satisfactory knowledge than nurses had unsatisfactory knowledge in most of the domains except essential newborn satisfactory.

COMPLIANCE TO QUALITY STANDARD:

As per the Maternal and Newborn Heath Toolkit, all the L1, L2, and L3 facilities shou

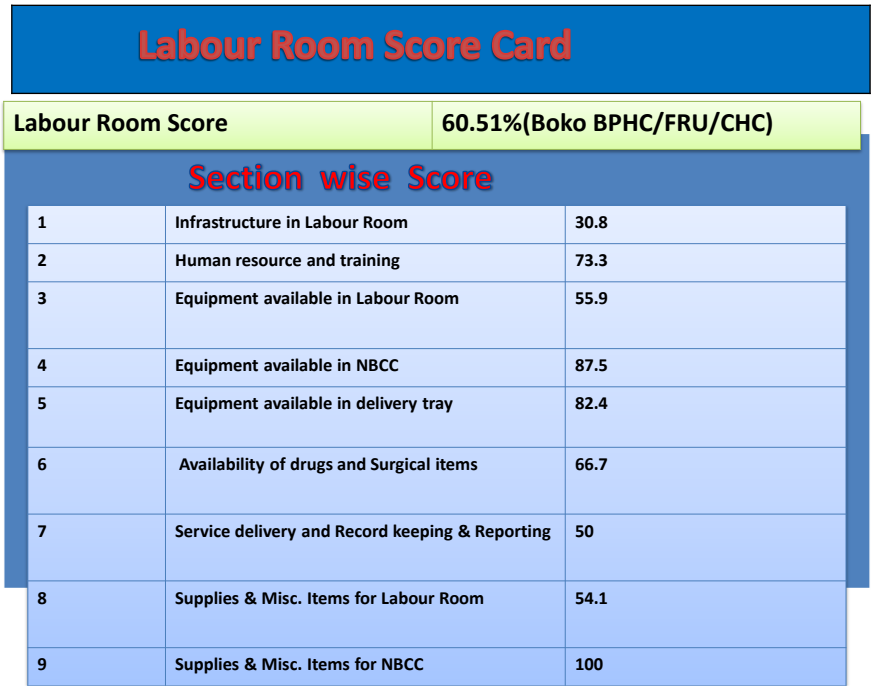
adequate infrastructure, Human Resource and skill, equipments, supplies of essential drugs an per the level of the facility with maintenance of adequate records. The compliance of the L in the MNH Toolkit and Assessor's Guidebook for quality assurance in public health insti and scoring is given as per the guidelines

The checklist consists of 8 parameters and corresponding key checkpoints taken from the for quality assurance that are essential to measure the quality of Labour Room. To assess water leakage/ Dampness from the room, Intact door and windows with panes, Curtain ar Cleanliness in Labour Room, wash basin inside Labour Room with elbow tap, running water Room, Cleanliness of toilet and running water supply, Power Supply in Labour Room, back functional fan, Bulb, Tube within Labour Room, functional room heater for winter, High capa appropriate protocol display at the Labour Room.

Each checkpoint was given a score of 2 for full compliance, 1 for partial compliance and have equal weightage to keep scoring simple. The individual scores for each checkpoints calculated in percentage, so that the compliance score of each area/parameters can be comp depicts the various parameters of labour room and NBCC that are assessed for compliance to quality

Table 4.11 Areas of Labour Room and NBCC
Infrastructure in Labour Room
Human Resource and training status
Equipments available in Labour Room
Equipments available in NBCC
Equipments available in delivery tray
Availability of drugs and surgical items
Service delivery and record keeping
Supplies and miscellaneous items in labour room
Supplies and miscellaneous items in NBCC

The following figures (figures 4.9 to 4.16 show the quality scoring of Labour rooms along with facilities of the study district.



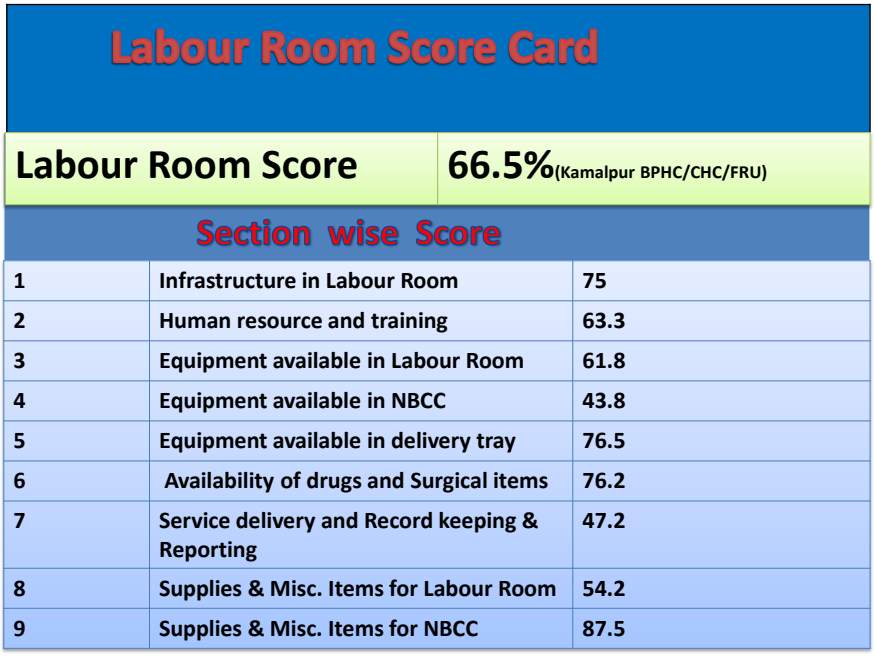
Labour Room Score Card

Labour Room Score	60.51%(Boko BPHC/FRU/CHC)

Section wise Score

1	Infrastructure in Labour Room	30.8
2	Human resource and training	73.3
3	Equipment available in Labour Room	55.9
4	Equipment available in NBCC	87.5
5	Equipment available in delivery tray	82.4
6	Availability of drugs and Surgical items	66.7
7	Service delivery and Record keeping & Reporting	50
8	Supplies & Misc. Items for Labour Room	54.1
9	Supplies & Misc. Items for NBCC	100

Figure : 4.9 Labour room score card of Boko BPHC/FRU/CHC



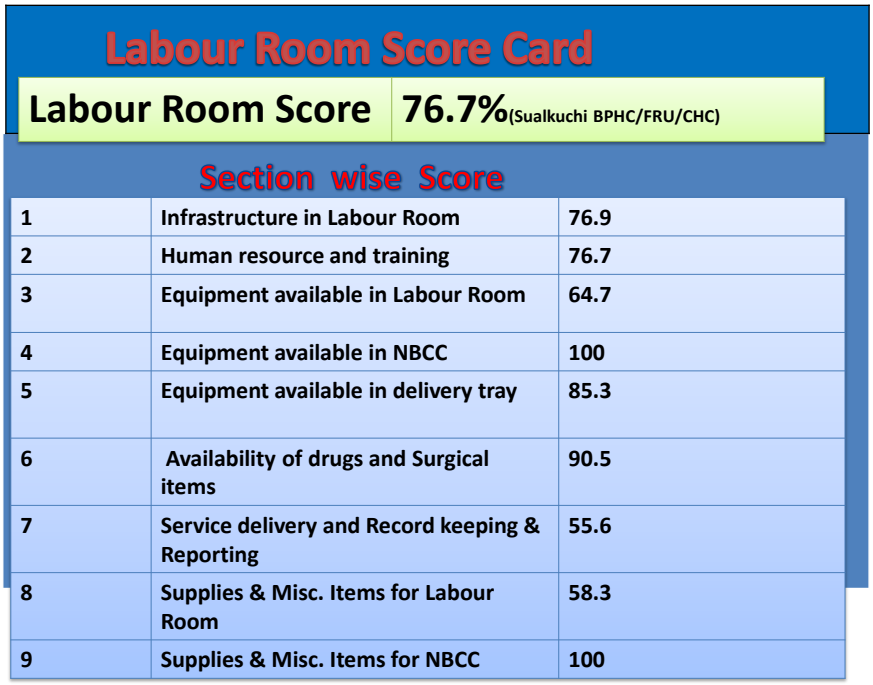
Labour Room Score Card

Labour Room Score	66.5%(Kamalpur BPHC/CHC/FRU)

Section wise Score

1	Infrastructure in Labour Room	75
2	Human resource and training	63.3
3	Equipment available in Labour Room	61.8
4	Equipment available in NBCC	43.8
5	Equipment available in delivery tray	76.5
6	Availability of drugs and Surgical items	76.2
7	Service delivery and Record keeping & Reporting	47.2
8	Supplies & Misc. Items for Labour Room	54.2
9	Supplies & Misc. Items for NBCC	87.5

Figure 4.10 : Labour room score of Kamalpur BPHC/CHC/FRU



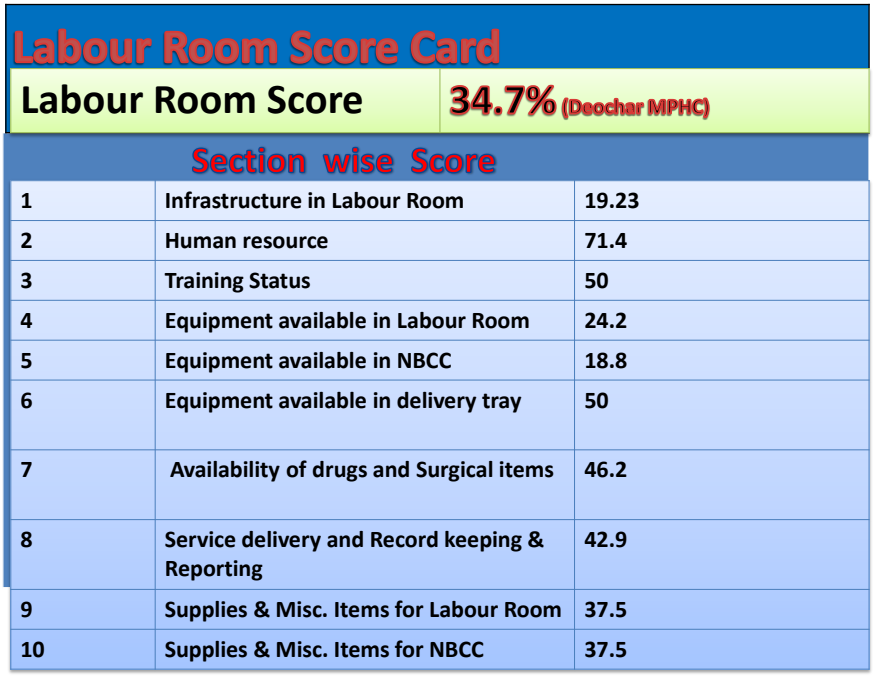
Labour Room Score Card

Labour Room Score	76.7% (Sualkuchi BPHC/FRU/CHC)

Section wise Score

1	Infrastructure in Labour Room	76.9
2	Human resource and training	76.7
3	Equipment available in Labour Room	64.7
4	Equipment available in NBCC	100
5	Equipment available in delivery tray	85.3
6	Availability of drugs and Surgical items	90.5
7	Service delivery and Record keeping & Reporting	55.6
8	Supplies & Misc. Items for Labour Room	58.3
9	Supplies & Misc. Items for NBCC	100

Figure 4.11: Labour room score of Sualkuchi BPHC/FRU/CHC



Labour Room Score Card

Labour Room Score	34.7% (Deochar MPHC)

Section wise Score

1	Infrastructure in Labour Room	19.23
2	Human resource	71.4
3	Training Status	50
4	Equipment available in Labour Room	24.2
5	Equipment available in NBCC	18.8
6	Equipment available in delivery tray	50
7	Availability of drugs and Surgical items	46.2
8	Service delivery and Record keeping & Reporting	42.9
9	Supplies & Misc. Items for Labour Room	37.5
10	Supplies & Misc. Items for NBCC	37.5

Figure 4.12: Labour room score of Deochar MPHC

Labour Room Score		
Labour Room Score	42.3% (SUKTAGURI MPHC)	
Section wise Score		
1	Infrastructure in Labour Room	23
2	Human resource	42.9
3	Training Status	25
4	Equipment available in Labour Room	43.5
5	Equipment available in NBCC	6.3
6	Equipment available in delivery tray	70.6
7	Availability of drugs and Surgical items	44.2
8	Service delivery and Record keeping & Reporting	32.1
9	Supplies & Misc. Items for Labour Room	58.3
10	Supplies & Misc. Items for NBCC	100

Figure 4.13: Labour room score of Tarabari State Dispensary

Labour Room Score Card		
Labour Room Score	52.5%(North-Guwahati BPHC)	
Section wise Score		
1	Infrastructure in Labour Room	60
2	Human resource	58.33
3	Training Status	30
4	Equipment available in Labour Room	50
5	Equipment available in NBCC	38
6	Equipment available in delivery tray	88.2
7	Availability of drugs and Surgical items	44
8	Service delivery and Record keeping & Reporting	31
9	Supplies & Misc. Items for Labour Room	54.1
10	Supplies & Misc. Items for NBCC	100

Figure 4.13: Labour room score of North Guwahati BPHC

Labour Room Score Card		
Labour Room Score	41%(CHANGSARI SD)	
Section wise Score		
1	Infrastructure in Labour Room	44.2
2	Human resource	50
3	Training Status	0
4	Equipment available in Labour Room	38.7
5	Equipment available in NBCC	31.3
6	Equipment available in delivery tray	73.5
7	Availability of drugs and Surgical items	48
8	Service delivery and Record keeping & Reporting	35.7
9	Supplies & Misc. Items for Labour Room	54.2
10	Supplies & Misc. Items for NBCC	87.5

Figure 4.14: Labour room score of Changsari SD

Labour Room Score		
Labour Room Score	42.3% (SUKTAGURI MPHC)	
Section wise Score		
1	Infrastructure in Labour Room	23
2	Human resource	42.9
3	Training Status	25
4	Equipment available in Labour Room	43.5
5	Equipment available in NBCC	6.3
6	Equipment available in delivery tray	70.6
7	Availability of drugs and Surgical items	44.2
8	Service delivery and Record keeping & Reporting	32.1
9	Supplies & Misc. Items for Labour Room	58.3
10	Supplies & Misc. Items for NBCC	100

Figure 4.16 : Labour room score of Suktaguri MPHC

CHAPTER- 5
DISCUSSION

This study is quantitative assessment that examined the existing status of labour room and Assam. Assam is one of the North-Eastern states of India with highest maternal death of which t death than its urban part. Among the 10 selected facilities, labour room and newborn care corner w facilities had newborn care corners either within the labour room or adjoining room.

The present study assessed the availability of human resources and training status, infrastructur essential supplies and miscellaneous items, essential maternal and newborn services along with m newborn care corner at the selected L1, L2 and L3 health care facilities with respect to IPHS gui MNH Toolkit.

There are very few studies which assessed the availability of infrastructure, human resources partic corner emphasizing on intra-partum and new born care services at the public health facilities in As conduct more such studies in the state for better understanding of the situation of public health ins as well as quality assurance guidelines developed by the Government of India and how far we neec

As per the working group report of NRHM on progress and performance of NRHM (2011), many because there are higher level public facilities almost as easy to access providing a better range a development of roads, the desirability of health teams as compared to single doctor PHCs or singl seeking behaviour have all made a number of facilities redundant.(9) The present study finding newborn care corner are established in the L1 and L2 health facilities but due to lack of adequate i assured services and availability of FRU/CHC/Civil hospitals within easy reach the utilization of int L1 facilities are below the norms.

The study conducted by Advent Health care group in Assam for Mission Director NRHM, Assam essential labour room and NBCC equipments in PHCs and CHCs are much higher than availability. that the though equipments are available the utilization is less because of lower case load in L2 and I

As per DLHS 4 report of Assam, there are 48.5% of PHC functioning on 24x7 basis, 46.2% of PHC PHCs has NBCC functioning on 24x7 basis and 58.8% of PHC conducted at least 10 deliveries at that 42.8% of PHC are functioning 24x7, 14.2% of PHC are equipped with AYUSH doctor, 28.5% basis and 14.2% of PHC conducted at least 10 deliveries at the last month. As per DLHS 4, 21.5 present study found that out of the 3 CHCs all are designated as FRU. From the above statistic functioning on 24x7 is still lacking in the state and less than 60% of PHCs has been providing at Regarding availability of MO (AYUSH) the present study result also showed that less than 50% of The study result shows that the training status of human resource is very poor with 0% medical trained SN in L2 facilities.

The study addresses the level of understanding about standard measures to be practiced in labour staff members the study revealed that the staff has mostly moderately satisfied knowledge in the Essential Obstetric Care but unsatisfactory knowledge in the area of infection prevention in labour have not heard about BEmOC signal functions. Among nurses most of the ANM has unsatisfactory except essential newborn care. The study showed that only 25% of labour room stuff uses part revealed that lack of training is the cause for not using partograph. The present study findings und delivery services by enhancing the knowledge and skills of service providers by adequate training Assam.

The provision of quality services requires adequate infrastructure and human resources, proper eq organization of work and a high level of motivation and a consciousness about quality. There is as

quality in the public health facilities. The present study also assessed the compliance to IPHS and quality assessment for District Hospitals has already started in Assam but this is the first study FRU/CHC/BPHC/PHCs. In the present study quality scoring was done for the labour room and NB 3 Level-III facilities score an average of 68%, the L2 facilities scores an average of 43% and the L1 50%.

Component wise issues/gaps identified and suggestions:

Table 5.1: Component 1: Human Resource

Issues identified	Suggestion
a. MO(MBBS/AYUSH) – - Only 33.3% and 50% L2 and L1 facilities respectively fulfil the norms. - Presence of MO AYUSH is only 14.2%. b. Paediatrician – - Only 66.7 % L3 facilities fulfil the norm. c. Staff nurse – - 66.7% L2 facilities respectively fulfil the norms. **Table 5.1 continues...** d. ANM – - 66.7%, 33.3% and 50% L3, L2 and L1 facilities fulfil the norms. e. Laboratory technician – - 33.3% L2 facilities fulfil the norm. f. Cleaner – - Not a single study facility of all levels fulfils the norm. **Training status–** a. MO trained in BEmOC is 0%. b. MO trained with FIMNCI in L2 facilities are 0% c. SBA trained SN in L2 and L1 facilities are 33.3% and 50% respectively. d. MO trained with NSSK in L2 facilities are 33.3% e. NSSK trained SN in L3, L2 and L1 facilities are 66.7%, 33.3% and 50% respectively.	- Need to hire more MO(MBBS/AYUSH), paediatrician, SN, ANM, Laboratory technician and cleaner as per standard norm. - Need to train the human resource as per requirement.

f. NSSK Trained ANM in L3, and L2 facilities are 33.3%. g. FIMNCI trained SN in L3, and L2 facilities are 33.3%.	

Table 5.2: Component 2 : Infrastructure

Issues identified	Suggestion
a. Labour rooms are not clean b. Toilets are available for pregnant women in labour but found to be unhygienic. c. No wash basin with elbow tap d. Availability of back - up power supply is less. e. Functional room heater for winter is not present in all labour room	a. To ensure cleanliness of labour room, adequate posting of cleaner. b. To ensure cleanliness of toilets, floor, wall etc. c. Provide elbow tap d. Provision of back up power supply in labour room for uninterrupted care. e. To ensure availability of room heater for winter.

Table 5.3: Component 3 : Essential equipments and accessories

Issues identified	Suggestion
a. Labour table of all facilities are not equipped with mattress, sheet, Macintosh, foot-rest and Kelly's pad. b. Suction machines are available in only 37.5% study facilities. c. All the tray needed in labour room (Delivery tray, medicine tray, emergency tray, and episiotomy tray) have not kept arranged in labour room. d. Availability of foetoscope /foetal Doppler is not 100% e. Stretcher with trolley, Wheel Chair, Oxygen cylinder with flow meter tube + Mask + Wrench is not available in all the facilities. f. Partograph is available in only 25% of facilities. g. Though electric sterilizer and autoclave drums are available in some facilities but	a. Each table should have a mattress, sheet, Macintosh, foot-rest and Kelly's pad. b. To ensure availability of suction machine c. To ensure 100% availability of all the tray in the labour room of all levels of health centres. d. Provide at least 1 foetoscope for all level of facilities for monitoring of foetal heart. e. To ensure availability. f. As above g. To set up autoclave system as per case load with equipments and training. h. Consider providing refrigerator i. Provide a cupboard. j. Place/replace/improve colour Coded

autoclave is available in operation theatre of two L3 level facilities, for L2 and L1 level facilities autoclaves are not available. h. No refrigerator for storage of drugs. i. No Drugs Cupboard for storage and organised access to medicines for patients of LR. j. Colour Coded Bins for segregation of waste and proper disposal appear inadequate and some are broken. k. All the NBCC are not equipped with functional radiant warmer, Baby Scale, Oxygen hood (Neonatal), Mucus extractor with suction tube and a foot operated suction machine NG tubes, **Table 5.3 continues.....** l. AMBU bag (Size- 0 and 1) / Bag & Mask, Feeding tubes (Nasogastric tube), Laryngoscope and Endotracheal intubation tubes m. Delivery tray of all the labour rooms are not equipped with all essential articles, especially sanitary pad, stainless steel bowl, Functional Mayo's trolleys are present in very less study facilities.	Bins k. To ensure availability, check the NBC equipment and replace what is not functioning well l. To ensure availability.

Table 5.4: Component 4: Drugs and consumables in LR and NBCC

Issues identified	Suggestions
a. Availability of & consumables needs to be far more than immediate requirement b. While situation is reported to be better after the provision of Delivery Kit there is still scope for	a. Ensure uninterrupted and adequate supply of essential and emergency drugs and consumable. -Maintain proper stock register and indent in time. b. Review the existing supply system through different sources

improvement in the management of supplies.	

Table 5.5: Component 5: Non-Clinical services provision

Issues identified	Suggestions
a. Bio Medical Waste Management - Improper segregation at waste generation sites (Labour Room/NBCC) due to lack of colour coded bins, hub cutter and puncture proof containers. **Table 5.5 continues....** b. Laundry service - There is no proper cleaning staff in place in almost all the facilities. c. Housekeeping and sanitation - Many of the toilets inspected were very unclean and sanitation appeared inadequate. The Labour room & floors & corners are found be stained with dirt.	a. Availability of adequate and trained grade –IV personnel to handle and manage waste safely, - Needs constant review, supervision and monitoring, with refresher training to the handlers periodically. b. Well managed cleaning staff. c. Need constant supervision to maintain adequate standard of cleanliness.

Table 5.6: Component 5: Good practices

Issues identified	Suggestions
A. Cleanliness, hygiene and infection control a. Labour rooms and toilets are not so clean and some of them are smelly. b. People walking in and out with very little restriction; no footwear change; Utility / Wash Room not so clean; Waste Bins are not available and not used properly, Sterilisation is done through boiling, not using autoclaving in all most 75% of facilities. c. There is no kitting of instruments, so no first in- first out system, instruments probably not getting	**A.** - Create awareness and motivation among all the staff for infection control. - Create a standard operating procedure for all instruments used in LR and NBCC that need to be sterile, are actually sterile. - Provide adequate number of good quality high-use instruments such as Sponge forceps, toothed forceps, needle-holders, scissors and disinfectant bowls. - Provide needed electric sterilizer

adequate time in Boiler, instruments then shifted to instrument tray; in all the labour rooms ethanol/spirit, savlon solution and bleaching powder/hypochlorite solution is not available; No Bleach Solution system observed for disinfection ; No autoclave machine; No elbow taps in Labour room. Table 5.6 continiues... d. Availability of functional Mayo's trolleys to keep sterile instrument is very less. B. No monitoring of pregnant women in labour with the help of partograph. This increase the risk of late recognition of any risk to the mother and the baby. It also increases the risk of still birth and birth asphyxia. C. Assisted delivery is not performed in any of the L3 and L2 facilities and newborn resuscitation is performed in very less number of facilities due to unavailability of adequate infrastructure, equipments and skill. D. Birth doses of immunization is not administered within 24 hrs of delivery in any of the L2 and L1 facilities due to inability to keep mother and newborn till 48 hrs of delivery. E. Patients put on bare labour room tables with no sheet / mackintosh / mattress F. No safe - birth checklist is practiced during the delivery.	and autoclave machines. Create a kitting system for regular autoclaving in batches, Provide elbow taps and Mayo's trolleys B. The number of Nurses needs to be increased along with SBA training. C. Staff can be trained; infrastructure and functional equipments should be made available. D. Facility to ensure administration of birth doses of immunization. E. Patient Comfort also needs to be addressed. Mattresses with washable sheet and Mackintosh needs to be provided. F. Ensure use of WHO safe – birth checklist

Table 5.7: Component 6 : Record keeping and Registers

Issues identified	Suggestions

None of the facility maintains newborn resuscitation and NBCC register. Only 25% of facilities keep newborn referral register. None of the L2 and L1 facility keeps records of newborn and mother referral register.	Maintenance of registers and records should be mandatory; the data management unit of BPHC should collect data from each of its PHC on daily basis to keep track of all necessary records thereby updating HMIS with real time data.

CHAPTER - 6
CONCLUSION AND RECOMMENDATION

As evident from the study, all the types of health centres in the district are not adhering to the norm services. Infrastructure development must be prioritised accordingly by taking into consideration access. The study result recognizes that there is a need to assess Quality of Care in Labour room a but to add value; by identifying gaps and areas that need strengthening, and arriving at suggestions National Health Mission that each pregnant mother coming to public health facilities will get Quali as Infrastructure and Equipment, and on "soft variables" such as adherence to good practices, a critical factors tend to get compromised possibly due to heavy workloads / staff shortages / infra attitude issues. Therefore there is utmost need to focus on them. There should be continuous monito mechanisms to improve quality of care and accountability.

In order to improve the functioning of facilities as per standards, the following recommendations are

1. Pooling of human resource need to be done at the block PHCs who can go to mini PHCs a services.
2. All MPHC and SD to be fully functional for basic services like 24x7 delivery and newborn s
3. All health care professional should be provided with related manuals/ guidebooks about s service delivery points.
4. Strengthening the Delivery points (Level I, II, III) by providing required equipments, infrast provide assured services.
5. Ensure delivery by the SBA trained personnel other than the medical officers.
6. Strengthening the operationalization of Blood Bank and Blood Storage Units in the FRUs.
7. At present 40 FRUs are designated in Assam, out of which 6 FRUs are not conducting functional.
8. Strengthening Facility Based New Born Care by strengthening NBCC and ensuring postn postnatal care.
9. All the health facilities should be made functional according to IPHS i.e. adequate staff esp to provide emergency and quality services.

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ANNEXURES

ANNEXURE 1 : Model Labour room and NBCC assessment checklist.

Section 1	**General Information**	
	Name of State:	**Name of District:**
	Name of Block :	**Name of Facility:**
	Name of Respondent:	**Type of Facility:**
	Catchment Population :	**Targeted Population :**
	Expected Live Birth :	**Others:**
Section 2	**Infrastructure of Labour Room**	

2.1	**Monitoring Parameters**	**Available**	**Functional (with remarks if any)**
2.1.1	Water leakage/ Dampness from the room		
2.1.2	Intact door and windows with panes		
2.1.3	Curtain and side screen between Labour tables		
2.1.4	Cleanliness in Labour Room (Floor, Walls, Toilet, Washbasin etc)		
2.1.5	Washbasin inside Labour Room with Elbow tap, running water and soap		
2.1.6	Attached Toilet with Labour Room/ Distance of Nearby Toilet		
2.1.7	Cleanliness of toilet and running water supply (Attached & Nearby both)		
2.1.8	Power Supply in Labour Room		
2.1.9	Backup power supply (Generator or Inverter)		
2.1.10	Functional fan, Bulb, Tube within Labour Room		
2.1.11	Function room heater for winter		
2.1.12	High capacity torch with rechargeable cells		
2.1.13	Applicable protocol at appropriate places within Labour Room		
2.2	**Protocol display at appropriate places and utility**	**Availability (Y /N)**	**Location (LR , NBCC)**
2.2.1	Hand washing		
2.2.2	Infection prevention		
2.2.3	Simplified partograph		

2.2.4	Vaginal bleeding before 20 weeks		
2.2.5	Vaginal bleeding after 20 weeks		
2.2.6	Management of PPH		
2.2.7	Eclampsia		
2.2.8	Active Management of Third Stage of Labour (AMTSL)		
2.2.9	Breastfeeding		
2.2.10	LR sterilization*		
2.2.11	Management of atonic PPH *		
2.2.12	Newborn resuscitation		
2.2.13	Kangaroo Care		
2.2.14	Management of Hypothermia		

Section 3	**Human Resources and Training**						
3.1	**HR Status**	**In Position**		**Training**			
		Regular	**Contractual**	**BeMoc**	**SBA**	**NSSK**	**FIMNCI/FbNC**
3.1.1	Paediatrician						
3.1.2	O & G specialist						
3.1.3	Anaesthetist						
3.1.4	Medical Officer						
3.1.5	Staff Nurse						
3.1.6	ANM						

3.1.7	Laboratory Technician						
3.1.8	Pharmacist						
3.1.9	RMNCH+A Counsellor						
3.1.10	Cleaner						

Section 4	**Equipment available in L R :**		
4.1	**Name of Equipment**	**Available (Y/ N)**	**Functional (with remarks if an**
4.1.1	Labour table with mattress, sheet, Macintosh, Foot-rest, Kelly's pad		
4.1.2	Suction Machine (Electrical / Foot operated)		
4.1.3	Mobile lamp with stand		
4.1.4	Watch/ clock with second hand		
4.1.5	Delivery tray		
4.1.6	Episiotomy tray		
4.1.7	Medicine tray		
4.1.8	Emergency drug tray		
4.1.9	Baby tray		
4.1.10	MVA tray		
4.1.11	PPIUCD tray		
4.1.12	Stethoscope		
4.1.13	Foeto-scope		
4.1.14	Foetal Doppler		
4.1.15	BP apparatus		

4.1.16	Weighing machine for newborn (Preferably Digital)		
4.1.17	Thermometer (Digital)		
4.1.18	Measuring Tape		
4.1.19	Stretcher with trolley		
4.1.20	Wheel Chair		
4.1.21	Focused lighting that can be used during procedure such as Episiotomy		
4.1.22	stool for birth companion		
4.1.23	Autoclave drums for instrument, linen, gloves, cotton, gauge, thread sanitary pads		
4.1.24	Electrical sterilizer		
4.1.25	Refrigerator		
4.1.26	Pulse oxymeter		
4.1.27	Oxygen cylinder with flow meter tube + Mask + Wrench		
4.1.28	Oxygen concentrator		
4.1.29	Partograph		
4.1.30	Coloured bin for bio medical waste management (RED)		
4.1.31	Coloured bin for bio medical waste management YELLOW)		
4.1.32	Coloured bin for bio medical waste management (BLUE)		
4.1.33	Hub cutter		
4.1.34	Puncture proof container		
Section 5	**Equipment available in NBCC :**		

5.1	**Name of Equipment**	**Available (Y/ N)**	**Functional (with remarks, if ar**
5.1.1	Radiant Warmer		
5.1.2	Phototherapy unit		
5.1.3	Baby Scale		
5.1.4	Oxygen hood (Neonatal)		
5.1.5	Mucus extractor with suction tube and a foot operated suction machine NG tubes		
5.1.6	AMBU bag (Size- 0 and 1) / Bag & Mask		
5.1.7	Feeding tubes (Nasogastric tube)		
5.1.8	Laryngoscope and Endotracheal intubation tubes		
Section 6	**Equipment available in Delivery Tray:**		
6.1	**Name of Equipment**	**Available (Y/ N)**	**Functional (with remarks if an**
6.1.1	Gloves		
6.1.2	Cord clamp		
6.1.3	Cord tie		
6.1.4	Artery forceps - Curved		
6.1.5	Straight stitch scissors,		
6.1.6	Cord cutting scissors, curved, 135mm, S/S		
6.1.7	Sponge holding forcep		
6.1.8	Speculum		
6.1.9	Stainless steel bowl		
6.1.10	Kidney tray		

6.1.11	Stainless steel drum		
6.1.12	Urinary catheter (Red Rubber)		
6.1.13	Urinary catheter (Foley's Catheter)		
6.1.14	Cotton swabs		
6.1.15	Functional IV stands		
6.1.16	Sanitary pad		
6.1.17	Functional Mayo's trolleys (to keep sterile instruments during procedure)		
Section 7	**Status of Drug availability and Surgical items at Labour Room and NBCC:**		
7.1	**Name of Drugs and surgical items**	**Available**	**Functional (with remarks if an**
7.1.1	Oxytocin inj. (to be kept in refrigerator)		
7.1.2	Misoprostol 200 micrograms (tab.)		
7.1.3	Vitamin K inj.		
7.2	**IV fluids:**		
7.2.1	Normal Saline		
7.2.2	Dextrose 5 %		
7.2.3	Dextrose 10 %		
7.2.4	Dextrose normal saline		
7.2.5	Ringer's lactate		
7.2.6	Dextran/ Hemacel (Plasma expander)		
7.2.7	Distilled water		

7.3	**Antibiotics:**		
7.3.1	Ampicillin inj.		
7.3.2	Metronidazole inj.		
7.3.3	Gentamicin inj.		
7.3.4	Other antibiotics		
7.4	**Anaesthetic agents and gases :**		
7.4.1	Lignocaine 2% inj.		
7.4.2	Lignocaine 2% with adrenaline (inj.)		
7.4.3	Oxygen		
7.5	**Analgesics:**		
7.5.1	Diclofenac sodium (Injection / tab.)		
7.5.2	Paracetamol (tab)		
7.6	**Emergency drugs :**		
7.6.1	Inj. Adrenaline (epinephrine)		
7.6.2	Inj. Aminophylline		
7.6.3	Inj. Atropine		
7.6.4	Inj. Calcium gluconate		
7.6.5	Inj. Dexamethasone		
7.6.6	Inj. Diazepam		
7.6.7	Digoxin (tab)		
7.6.8	Inj. Frusemide		
7.6.9	Inj. Glucose 50%		

7.6.10	Inj. Hydrocortisohe			
7.6.11	Inj. Nitroglycerine/Hydralazine			
7.6.12	Inj. Promethazine			
7.6.13	Inj. Magnesium sulphate			
7.6.14	Inj. Phenaramine Maleate			
7.6.15	Methyldopa (tab)			
7.7	**Dressing materials :**			
7.7.1	Adhesive tape			
7.7.2	Gauze piece			
7.7.3	Cotton swabs			
7.7.4	Cotton pads			
7.7.5	Catgut			
7.8	**Disinfectants and antiseptic solutions:**			
7.8.1	Chlorhexidine glucose + cetrimide (Savlon)			
7.8.2	Ethanol/ Spirit			
7.8.3	Providin Iodine solution			
7.8.4	Bleaching powder/ Hypochlorite Solution			
Section 8	**Service delivery and Record keeping & Reporting:**			
8.1	**Indicators**	**Available (Number)**	**Available Record**	**Updated Recor**
8.1.1	No. of deliveries at the health facility during last 3 month			

8.1.1.a	No. of forceps delivery at the health facility during last 3 months			
8.1.1.b	No. of ventouse delivery at the health facility during last 3 months			
8.1.2	No. of live birth at the health facility during last 3 months			
8.1.3	No. of still birth at the health facility during last 3 months			
8.1.4	No. of baby resuscitated under radiant warmer during last 3 months			
8.1.5	No. of baby started breastfeeding within one hour after delivery			
8.1.6	No. of baby referred to NBSU, SCNU or Higher centres during last 3 months			
8.1.7	Active Management of Third Stage of Labour (AMTSL) { MoV- Direct observation or by the availability and usage of inj. Oxytocin (10 IU per patient }			
8.1.8	Progress of labor to be essentially monitored in Partogragh (Cross-checked)			
8.1.9	Administration of birth doses- BCG, OPV, Hepatitis- B			

8.1.10	Manual removal of placenta after delivery			
8.1.11	Safe birth check list			
8.1.12	Maintainance & updation of Delivery Register			
8.1.13	Maintainance & updation of NBCC Register			

Section 9	**Location of NBCC :**		
9.1	**Inside LR**	**Outside LR**	
9.1.1		**In close proximity**	**Outside premises**

Section 10	**Supplies & Misc. Items for Labour Room**		
10.1	**Name of Items**	**Available (Y / N)**	**Remarks, if any**
10.1.1	Soap and detergent Powder		
10.1.2	Plastic Apron		
10.1.3	Disposable delivery kit		
10.1.4	Urine albumin sugar strip		
10.1.5	Gown		
10.1.6	Surgical drape (Plain towel)		
10.1.7	Surgical drape (hole towel)		
10.1.8	Sleepers		
10.1.9	Macintosh		
10.1.10	Gloves		
10.1.11	Kelly's pad		

10.1.12	Buckets for cleaning the labour room		
Section 11	**Supplies & Misc. Items for NBCC**		
11.1	**Name of Items**	**Available (Y / N)**	**Remarks, if any**
11.1.1	Sterile Gloves		
11.1.2	Disposable Syringe & Needle		
11.1.3	Baby Wrapping Towel		
11.1.4	Mucous Sucker		

ANNEXURE 2: Semi Structured Questionnaire for assessment of level of knowledge of nurses followed in Labour room.

SEMI STRUCTURED QUESTIONNAIRE

Demographic profile

1. Name of the person: _____
2. Sex: _____
3. Name of the health facility: ----------

3. Profession/Position: ----------
4. Educational qualification: _____
5. Years of experience: ----------
6. Training received: ----------

Interview schedule:

Sl.no	Question	Answer			Scores	Resu / Sum
1	Do you know components of essential new born care? • Normal breathing (establishing the breathing in case required) • Warmth • Weighing • Initiation of Breast feeding • Infection prevention	0= none	1=1to 2 items	2= more than two items		
2	Name the vaccines given on zero day to the newborn(within 24hr) OPV, BCG, Hep B,	0=none	1= 1 items	2= more than 2 items		
3	When Inj vitK is injected to the new born?	0= wrong ans		2= correct ans		
4	Do you know what are the services provided in NBCC • Essential new born care • Resuscitation if needed • Immunization • Care of sick new born Referral services	0= none	1=1 to 2 items	2= more than two items		
5	What are the symptoms of initiating resuscitation? • Meconium stained liquor and preterm labour. • Baby not crying and limp/flaccid limbs/floppy baby. • Or as per doctor's advice.	0= no item	1= 1 item	2= more than 1 item		

6	What are Indications for referral to the FRU on the basis of the partograph ? ▪ If the **FHR** is <120 beats/minute or >160 beats/minute ▪ If there is meconium- and/or blood-stained **amniotic fluid** ▪ When the **cervical dilatation** plotting crosses the Alert line (moves towards the right side of the Alert line) ▪ If the contractions do not increase in duration, intensity and frequency. ▪ If the maternal vital signs, i.e. the **pulse** (more than 100/min), **BP** (>140/90 mmHg) and **temperature** (>38 degree C), cross the normal limits. *Source : SBA Guidelines for Antenatal care and skilled attendance at birth*	0= wrng ans	1= partially correct	2= more than 2 items.		
7	Where and when did mothers initiate breastfeeding the newborns delivered at the facility?	0= wrng ans		2= correct ans		
8	Where do you place a newborn after the cord is cut?	0= wrng ans		2= correct ans		
9	What do you do/what steps do you take when a baby doesn't cry at birth? Check for approach to new born resuscitation. (Positioning, stimulation, suctioning, repositioning, PPV using Ambu bag)	0= wrong ans	1= partially correct	2= fully correct		
10	What are the procedures to be carried out during active stage of labour? (Active labour: when the cervix is dilated 4 cm or more) . Monitor the following every 30 minutes: . Frequency, intensity and duration of the contractions . FHR . Presence of any emergency sign . Monitor the following every 4 hours: . Cervical dilatation (in cm) . Temperature . Pulse . Blood pressure . Never leave the woman alone. . Start maintaining a partograph when the woman reaches active labour.	0= no item	1= 1to 2 items	2= more than 2 items		
11	What are the infection control practices to be followed in labour room?	0= no item	1= 1 to 2 items	2- more than 2 items		

	(Hand washing, daily cleaning, safe handling of sharp, wearing sterile gloves, instrument processing)					
12	How to decontaminate soiled instruments? (soaking soiled items in 0.5% chlorine solution for 10 minutes and wiping soiled surfaces such as examination tables with a 0.5% chlorine solution.	0= wrong an		2= correct ans		
13	What are the steps of instrument processing? (Decontamination, cleaning,sterilization)	0= correct ans	1= partly correct	2= completely correct		
14	What are the steps of active management of labour? Mandatory for all deliveries (vaginal and abdominal). Exclude presence of another baby after delivery of first baby. 1. Inj Oxytocin 10 units IM immediately after birth. 2. Controlled cord traction once uterus is contracted and cord is cut. Apply cord traction(pull) downward and give counter traction with other hand by pushing uterus up towards umbilicus. 3. Uterine massage to keep uterus contracted. 4. **Third stage of Labour** takes about 15 minutes to half an hour, irrespective of whether the woman is a primigravida or multigravida.	0= wrong	1=partially correct	2= completely correct		
15	How do you test the functioning of the bag and mask for resuscitation? • Fit mask onto the bag and deliver test breathes against the palm of the hand. You should feel pressure in the palm as the bag is squeezed. • Form a seal between the mask and the palm of the hand. Squeeze the bag enough for the pop off (pressure release) valve to open and make a sound as the air escapes. • Check that the bag re-inflates quickly when you release after squeezing the bag.	0= wrong	1= partially correct	2= fully correct		
16	What is the practice in facility to give oxytocin/misoprostol Uterotonics given in all deliveries including CS ▪ Inj Oxytocin is the drug of choice . Dose : 10 IU IM, in thigh, to be given with in one minute **after birth of baby** ▪ Tab Misoprostol Dose 600 micro gram, ORALLY, immediately after birth of the baby	0= wrong ans		2= correct ans		
17	How to prepare 1 Litter of bleaching solution? • Wear utility gloves and plastic apron • Make thick paste in plastic mug with 3 level teaspoons (15 g) bleaching powder and	0= no item	1= less than 2 steps	2= more than 2 steps		

	some water from bucket. • Mix paste in water to make 0.5% of chlorine solution • Maintain same ratio for large volumes • Make fresh solution in every shift and preferably keep covered					
18	What are the danger signs which require the baby to return for care immediately? BABY: Danger signs—return immediately: _ If baby is breastfeeding poorly _ If baby develops fever or feels cold to the touch _ Breathes fast _ Has difficulty in breathing _ Has blood in the stool _ If the palms and soles are yellow _ Has convulsions	0= no item	1= less than 2 steps	2= more than 2 steps		
19	What are the danger signs which require the mother to return for care immediately? MOTHER: **Danger signs—return immediately** _ Increase in vaginal bleeding _ Convulsions _ Fast or diffi cult breathing _ If mother has fever and is too weak to get out of bed _ Severe abdominal pain _ Swollen, red or tender breasts _ Dribbling of urine or inability to pass urine _ Pain in the perineum or draining pus _ Foul smelling lochia	0= no item	1= less than 2 steps	2= more than 2 steps		
20	What are the indications for conducting an episiotomy that is followed in the facility? (There is no evidence that routine episiotomy decreases perineal damage, future vaginal prolapse or urinary incontinence). • Complicated vaginal delivery (refer to a higher health facility in case of a malpresentation) • H/o third- or fourth-degree perineal tears • Foetal distress • Instrumental/assisted delivery	0= no item	1= less than 2 steps	2= more than 2 steps		

ANNEXURE 3: Semi Structured Questionnaire for assessment of level of knowledge of medica
be followed in Labour room.

SEMI STRUCTURED QUESTIONNAIRE

Demographic profile

4. Name of the person: _____
5. Sex: _____
6. Name of the health facility: ----------

3. Profession/Position: ----------
4. Educational qualification: _____
5. Years of experience: ----------
6. Training received: ----------

Interview schedule:

SL NO.	Question	Answer			Scor
1	Do you know about BEmoC signal functions/ CEmoC ▪ Administer parental antibiotics ▪ Administer uterotonic drugs (i.e. parental oxytocin) ▪ Administer parental anticonvulsants for pre-eclampsia and eclampsia (i.e. magnesium sulphate) ▪ Manual Removal of placenta ▪ Remove retained products (eg. Manual vacuum extraction, dilatation and curettage) ▪ Perform assisted vaginal delivery (eg. vacuum extraction, forceps delivery) ▪ Performs basic neonatal resuscitation (e.g. with bag and mask) ▪ Perform surgery (e.g, Caesarean section) ▪ Perform blood transfusion A BEmOC facility is the one in which all functions 1-7 are performed. A CEmOC facility is one in which all functions 1-9 are performed.	0=none	1=1 to 3 items	2= more than 3 items	
2	What are the maternal complications to be managed in different level of facilities ? **i. Level 1 (SC/non 24x7 PHC)** • Pre-referral management for obstetric emergencies (Eclampsia, PPH, shock) **ii. Level 2 (24x7 PHC/Non FRU CHC)** • Management of complications other than those requiring referral to L3 including blood transfusion or surgery. • Stabilization of obstetric emergencies and referral to L3 wherever required. **iii. Level 3 (FRU CHC/SDH/DH)** • Comprehensive management of all obstetric emergencies, eg, PIH/ eclampsia, sepsis, PPH, retained placenta, shock, obstructed labour, severe anemia.	0= no item	1= less than 2 items	2= more than 2 steps	
3	What are the new born care services to be provided in different levels of facilities?	0= no item	1= less than 2	2= more	

	i. Level 1 (SC/non 24x7 PHC) • Essential newborn care including resuscitation, Zero day immunization (OPV, BCG, Hep B; as per GoI schedule), Inj. Vit. K. • Care of sick newborn : Identification, stabilization and initial management of complications (sepsis, LBW/premature babies, etc) before referral and prompt referral of 'sick' newborn. **ii. Level 2 (24x7 PHC/Non FRU CHC)** All those in Level 1, plus the following : • **Care of sick newborn:** ❖ Identification and Management of LBW infants >/= 1800 g with no other complications. ❖ Phototherapy for newborns with hyperbilirubinemia. ❖ Management of newborn sepsis ❖ Stabilization and referral of sick newborns and those with very low birth weight. **iii. Level 3 (FRU CHC/SDH/DH)** All those in Level 2, plus : • **Care of sick newborn:** ❖ Management of LBW newborns <1800 gm ❖ Management of all sick newborns (except those Requiring mechanical ventilation and major surgical interventions) ❖ Follow-up of all babies discharged from the unit and high-risk newborns.		items	than 2 steps	
4	What is the standard protocol to administer oxytocin/misoprostol ▪ Uterotonics given in all deliveries including CS ▪ Inj Oxytocin is the drug of choice . Dose : 10 IU IM, in thigh, to be given with in one minute **after birth of baby** ▪ Tab Misoprostol Dose 600 micro gram, ORALLY, immediately after birth of the baby	0= no item	1= less than 2 items	2= more than 2 steps	
5	What are criteria and dose that should be followed to administer Magnesium Sulfate? ▪ In all cases of Eclampsia and severe Pre eclampsia , ▪ Inj MGSO4,4gm of 50% diluted to 20%(8ml drug with 12 ml NS) to be given slow IV over 5 mins and 5g (10ml) 50% solution deep IM in each buttock **i.e 20ml** ▪ Maintenance dose : 5gm IM (50%)alternate buttocks every 4 hours	0= wrong ans	1= partially correct	2= fully correct	
6	How do you use antenatal corticosteroids in case of pre-term deliveries in the facility? • Confirm the criteria for identifying true preterm labour in terms of both components 1.Identification of Correct Gestational age and 2.Onset of true labour • Dose :Inj Dexamethasone Sodium Phosphate 6mg IM 12hrly for 4 doses	0= wrong ans	1= partially correct	2= fully correct	

7	What steps do you take when a baby doesn't cry at birth? Check for approach to new born resuscitation. (Positioning, stimulation, suctioning, repositioning, PPV using Ambu bag) Source: NSSK	0= wrong ans	1= partially correct	2= fully correct	
8	What are the danger signs of newborn and mother that you advised the client to return for care immediately BABY: Danger signs—return immediately: _ If baby is breastfeeding poorly _ If baby develops fever or feels cold to the touch _ Breathes fast _ Has difficulty in breathing _ Has blood in the stool _ If the palms and soles are yellow _ Has convulsions MOTHER: **Danger signs—return immediately** _ Increase in vaginal bleeding _ Convulsions _ Fast or diffi cult breathing _ If mother has fever and is too weak to get out of bed _ Severe abdominal pain _ Swollen, red or tender breasts _ Dribbling of urine or inability to pass urine _ Pain in the perineum or draining pus _ Foul smelling lochia	0= wrong ans	1= partially correct	2= fully correct	
9	What are the indications for referral of mother during labour? Critical Factors: – < 2 Uterine contractions in 10 min., each lasting less than 40 seconds. – Foetal heart rate > 160/ min or < 120/min. – Cervical dilatation crosses the alert line. – Moulding of the foetal head (++). – Caput succedaneum. – Liquor – meconium stained. □□Pulse rate > 100/ min. □□Blood pressure > 140/90 mm Hg. □□Temperature > 100.40 F (> 380C).	0= wrong ans	1= partially correct	2= fully correct	
10	What are the indications for referral of the baby □□Has birth weight less than 1500 grams. □□Has major congenital malformation / severe birth injury. □□Is breathing <30/min. or has fast breathing (>60/min.). □□Severe chest in-drawing. □□Lethargic/unconscious. □□Unable to feed. □□Jaundice onset < 24 hrs or yellow staining of palms/soles. □□Fever or hypothermia. □□Bleeding. □□Convulsions	0= wrong ans	1= partially correct	2= fully correct	