

Mapping of Human Resource Availability and Facilities on FRUs (First Referral Units) in 25 HPDs of Uttar Pradesh

By

Manu Sharma

*Dissertation submitted for the partial fulfillment of the
MBA Human Resource Management in Health and Hospitals*

Academic year, 2015-2017



The IIHMR University, Jaipur

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

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Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in/

TO WHOMSOEVER MAY CONCERN

This is to certify that Manu Sharma student of MBA in Human Resource Management in Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at IHAT, Lucknow from 6th February, 2017 to 5th May, 2017.

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

The Internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.



Dean, Academic and Student Affairs

The IIHMR University, Jaipur



Professor

the IIHMR University, Jaipur

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The certificate is awarded to

Ms. Manu Sharma

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

Monitoring & Evaluation

and has successfully completed her Project on

**Mapping of Human Resource Availability on FRUs (First Referral Units) in
25 HPDs of Uttar Pradesh**

From
(February 6-May 5, 2017)

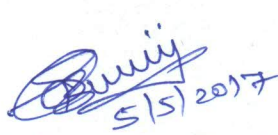
At
**INDIAN HEALTH ACTION TRUST
Lucknow (Uttar Pradesh), India.**

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

We wish her all the best for future endeavors


Mr. Thirumalai. N
Senior Specialist-Program
monitoring
IHAT-Lucknow (U.P.)




Mr. Satyendra Chauhan
Sr. Manager-Human Resources
IHAT-Lucknow (U.P.)

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Mapping of Human Resource Availability and facilities on FRU (First Referral Units) in 25 HPDs of Uttar Pradesh** and submitted by **Manu Sharma** Enrollment No 0006 under the supervision of **Dr. Sazzad Parwez** for award of MBA in Human Resource Management in Health and Hospitals of the University carried out during the period from 6th February 2016 to 5th May, 2024 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.



Signature

THE IIMMR UNIVERSITY, JAIPUR

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This is to certify that all ethical issues have been considered while collecting data for my dissertation titled **Mapping of Human Resource Availability and facilities on FRU's (First Referral Units) in HPDs of Uttar Pradesh.**

Mamta

Signature of student

Acknowledgement

I, Manu Sharma, student of MBA-HRM 1st batch at IIHMR University, Jaipur, would like to sincerely express my heartfelt gratitude to **Mr. Arup kumar Das, Team leader, UP-TSU, IHAT Lucknow (U.P.)**, and Mr. Thirumalai N., Sr. Specialist M & E UP-TSU, IHAT Lucknow (U.P.), for granting me the opportunity for training.

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Manu Sharma
MBA HRM 2nd Year,
Batch 2015-17

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List of Abbreviations

ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
BEmOC	Basic Emergency Obstetric Care
BSU	Blood Storage Unit
CEmOC	Comprehensive Emergency Obstetric Care
CHC	Community Health Centre
DEO	Data Entry Operator
DH	District Hospital
DP	Delivery Point
EmOC	Emergency Obstetric BSU Blood Storage Unit Care
FBNC	Facility Based Newborn Care
FIMNCI	Facility based Centre Integrated Management of Neonatal and Childhood Illnesses
FRU	First Referral Unit
GoI	Government of India
HBNC	Home Based Newborn Care
HR	Human Resource
ICU	Intensive Care Unit
LR	Labour Room
LSAS	Life Saving Anesthesia Skill
LT	Lab Technician
MCH	Maternal and Child Health
MO	Medical Officer
MTP	Medical Termination of Pregnancy
NBCC	Newborn Care Corner
NBSU	New Born Stabilization Unit
NSSK	Navjat Shishu Suraksha Karyakram
PNC	Postnatal Care
RMNCH	Reproductive Maternal Newborn and Child Health
SBA	Skilled Birth Attendant
SN	Staff Nurse

Chapter 1

Organization Profile

1. About the organization

India Health Action Trust (IHAT) is a secular trust under the provisions of the Indian Trust Act, 1882. University of Manitoba (UM), established IHAT in 2003, as part of a five-year (2001 to 2006) bilateral development project between Canada and India.

IHAT originally focused on providing comprehensive technical assistance and training in programme planning and management to the states of Karnataka and Rajasthan. Over the years, the trust has supported the State AIDS Control Societies (SACS) in Maharashtra, Bihar, Rajasthan, Andhra Pradesh, Tamil Nadu and Goa. In 2009, IHAT was registered with the Ministry of Home Affairs (MHA) under the Foreign Contribution Regulation Act, 1976.

The GoUP approached the Bill & Melinda Gates Foundation (the Foundation) to provide techno-managerial assistance through the establishment of a comprehensive Technical Support Unit (TSU) focused on supporting the GoUP to reach its goals in RMNCH+A.

In November 2013, IHAT established a TSU to support the government of UP to increase the efficiency, effectiveness and equity of its execution vis-à-vis the three platforms identified in the Foundation's ICO (India Country Office) strategy for integrated delivery: the government, the private sector, and communities. (1)

2. Vision of the organization

To impact public health policy and programme in the country through the application of programme science.

3. Mission of the organization

Our mission is to enhance the wellbeing of communities through evidence-based, gender-transformative, innovative, sustainable and scalable programme.

4. Organization work

IHAT works to improve public health in India and abroad by using its expertise in technical support, program implementation, research and advocacy to enhance public health policy and programme. Some Successful projects of IHAT:

a) Preventing Parent to Child Transmission Of HIV/AIDS

Prevention of parent/mother to child transmission (PPCTC or PMTCT) refers to interventions to prevent the transmission of HIV from mother to child during pregnancy, Labour, delivery or breastfeeding. Successful clinical trials of single dose Nevirapine and combination anti-retroviral prophylaxis have led to global interest in PPTCT as an HIV prevention activity. The new Multi Drug Resistant ART given to HIV positive women during pregnancy reduces transmission by at least 75 per cent. Ensuring that they receive treatment is critical not only to prevent MTCT but also to protect their own health and survival. IHAT partners with IL&FS implemented the project in eight districts in Rajasthan, India, from 2010 to 2015 with the aim to prevent HIV transmission from parent to child and to mitigate the impact of HIV by expanding access to services for HIV testing and counselling.

IHAT's PPTCT Programme eight district projects in Rajasthan have got above 84 per cent scores for their performance. Rajasthan is rated one out of the nine best performing IL & FS supported states implementing the PPTCT programme (2011-12). During the reporting period, these projects have been able to reach directly to 25916 pregnant women and babies as well as indirectly to 106509 family members through its outreach and service linkages strategies.

b) Link Workers Project

The Link Worker Scheme, initiated in district Tonk in Rajasthan, was part of the national response to reducing the risk and vulnerabilities to HIV of rural populations in the country. The project aimed to saturate coverage of high-risk groups through link worker outreach in areas not reached by the targeted intervention; identify and link bridge and vulnerable populations in remote areas with services; and support people living with HIV/AIDS in these areas. IHAT implemented the project from 2009 to 2012 funded by UNICEF.

The project covered 100 villages reaching high-risk groups, long-distance truckers and their associates who stop frequently in the project areas, and vulnerable young women, youth and adults.

The project conducted outreach to most at risk and especially vulnerable adolescents, promoted condom use, established Village Information and Education Centres (VIECs), formed Red Ribbon Clubs, trained link workers, organized street theatres and other

programme with messages on HIV/AIDS preventions and services, and counselled, treated and tested individuals with sexually transmitted infections.

Panchayati Raj Institutions (PRIs), medical and health functionaries, school management and students, youth clubs, self-help groups and the civil society organization's in the district now own the programme. They have shown the commitment to carry on with the activities as part of their departmental activities.

In three years, the project had directly or indirectly reached 3.75 lakh people (35 per cent of the rural population of the district), spreading awareness, and bridging gaps in HIV treatment, care services and community access.

c) Saving Children's Lives through Community Empowerment

The project aimed to reduce mortality and under nutrition rates among children aged 0 to 5 years through improving access and utilization of maternal, new born and child health and nutrition services; empower communities through better awareness of available services; enhance the skills and capacities of Accredited Social Health Activists (ASHAs) at the village level; and build the capacities of community based organizations, local non-government organizations and government systems.

5. Organizations strengths

- a) Evidence based
- b) Community centered
- c) Life cycle approach
- d) Context specific
- e) Scale-up driven
- f) Sustainability focused
- g) Technical support

6. Work approaches

We adopt a Program Science approach which is the systematic application of theoretical and empirical scientific knowledge to improve the design, implementation and evaluation of public health programs. It includes research driven methodologies for intervention design and assessment ensuring the right mix of interventions for the right populations; translating knowledge for global dissemination and creating forums for interaction between scientists, programs & policy leaders, and implementers. In adopting a program science approach, IHAT work is based on four key pillars of integration, equity, embedded support, alignment & ownership that guide its focus, scale and functioning pattern.

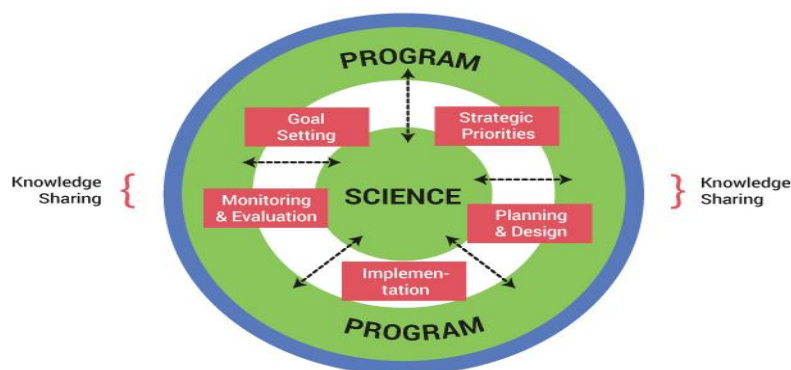


Figure 1

a) Integration

IHAT adopts a lifecycle focus recognizing the importance of continuum of care across the life leads to better health outcomes. Access to quality family planning services can empower adolescents and women to facilitate wanted pregnancy; appropriate antenatal care is needed throughout pregnancy for monitoring the health of mothers and their babies; skilled birth attendance and access to care during the postnatal period helps to ensure that survival of mothers and their newborns; and availability of basic health care services is critical for reducing preventable deaths amongst children under five. IHAT focus on improving all aspects of planning, implementation and monitoring of services.

b) Equity

Improving health indicators is a public health priority and recognizing that there are significant intra-state variations in the quality of health status and health services at the village and district levels. IHAT focuses its resources in High Priority Districts (HPDs) where health outcomes

are especially poor for women and children. These areas were strategically selected to ensure that the activities conducted can achieve population-level impacts in health status amongst those with the greatest need.

c) Embedded support

Health services are designed, planned, and implemented at the state, district and block levels. To support the Government, partners need to work alongside specialists at each of these levels of the health system. IHAT is therefore physically and operationally embedded at state, district and block levels of the government health system. At each level, IHAT staff support government staff in designing and planning program implementation, and in strengthening skills and practices amongst clinical and frontline workers (FLWs).

d) Aliment and ownership

By aligning its goals, objectives and work plans with government, IHAT promotes the adoption of new evidence-informed planning, implementation, and monitoring strategies that will help to achieve meaningful results.

7. Network and partners

IHAT has partnerships at the local, state, national and international levels. IHAT collaborates closely with the Centre for Global Public health of the University of Manitoba, Canada and the National AIDS Control Organization (NACO), AIDS Control Societies and Ministries of Health in various states in India. At the grassroots, IHAT partners with registered NGOs, CBOs and community service organizations. IHAT receives funding from the Bill and Mellinda Gates Foundation, Save, Infrastructure Leasing and Financial Services Education and Technology Services Ltd. The Positive Action for Children Fund of ViiV Health Care, Dimagi, and from Central and State governments.

8. UPTSU-Technical support

IHAT believes that strengthening the existing health system is the best way to achieve sustained health outcomes at scale. It has devel these gapsoped a “theory of change” to guide its support to government in improving these health outcomes and providing techno-managerial support lies at the core of this approach.

IHAT transfers skills and knowledge to partners through embedded techno-managerial support, including hands-on orientation to gap analysis and prioritization; developing standards, systems and processes; monitoring and evaluation; and problem solving.

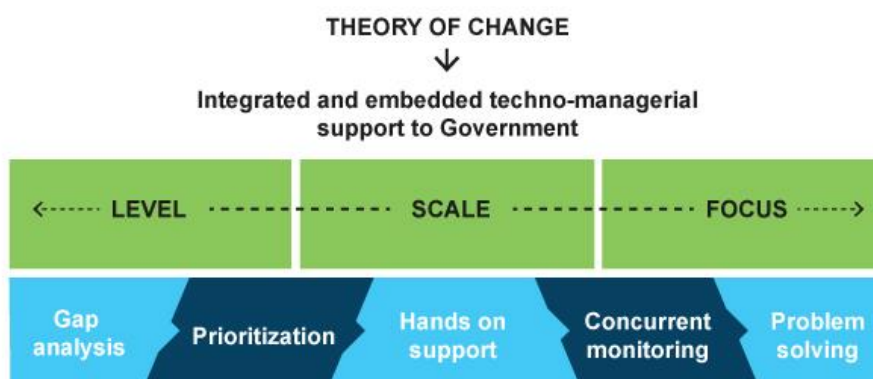


Figure 2

IHAT assesses partners' systems by reviewing their programme processes, outputs and outcomes, and shares objective feedback and constructive critique.

IHAT's specialists explain and demonstrate user- friendly solutions for technical challenges and impart innovative strategies and principles of programme design, implementation, and evaluation. Technical support is, thus, an advisory role and does not include direct involvement in programme implementation or execution.

Technical Managerial Support focuses on Identifying and prioritizing gaps in existing systems and practices, followed by providing hands-on support to health facility staff and frontline workers to resolve these gaps.

8.1. The Uttar Pradesh Technical Support Unit (UP TSU)

India has among the highest maternal mortality ratios and infant mortality rates in the world, at 178 maternal deaths per 100,000 live births and 42 infant deaths per 1,000 live births (Sample Registration System, 2013). Among all Indian states, Uttar Pradesh, with one sixth of India's population (200 million) has the highest maternal mortality ratio (292 per 100,000 births), and the highest infant mortality (53 per 1,000 live births). One of the main underlying causes of high morbidity and mortality among women and children is the health risk associated with early childbearing, short birth intervals and high parity, often higher than desired. Given this, the Government of India (GoI) has launched a renewed

campaign to improve RMNCH+A performance across India, and the GoUP has followed up the national launch with its own show of commitment through the state RMNCH+A effort, and the launch of the ‘Hausla’ campaign to save mothers and children across the state. A major emphasis of the Government of Uttar Pradesh (GoUP) has been investment in health and development focused on reproductive, maternal, newborn and child health, along with adolescent health (RMNCH+A) through the National Health Mission. To support this, the GoUP recognized that enhancement of the state’s execution capacity through better planning and implementation could improve the efficiency, effectiveness and equity of RMNCH+A services, and thereby improve health and development outcomes.

To strengthen the reproductive, maternal, newborn, child health and adolescence (RMNCH+A) outcomes in the state, the Bill & Melinda Gates Foundation (BMGF) has been funding technical support to the Government of UP (GoUP) to improve the efficiency, effectiveness and equity on public sector delivery interventions critical for the survival of the newborn and the mother, under a Memorandum of Cooperation signed between BMGF and GoUP in December 2012. This is accomplished through the Technical Support Unit (TSU) which was established initially for 3 years, in November 2013, with University of Manitoba as the lead grantee, and support through other efforts and organizations. The TSU has been supporting GoUP to achieve the following targets: reduce MMR from 292 to 200, IMR from 53 to 32, NMR from 37 to 24, and total fertility rate from 3.3 to 3.0 by 2017. To achieve the goal, several key objectives were established for the TSU, including: supporting leadership to focus more on outcomes; improving the performance of front-line workers (FLW); improving facility performance, coverage and quality of care; enhancing accountability systems [internal and external] to ensure quality of service delivery at scale; and improving overall planning, policy formulation and coordination. (2)

8.2. TSU Theory of Action

The UP TSU uses a “program science” approach to RMNCH+A, which is founded on the application of evidence and scientific knowledge to inform program design, implementation, monitoring and evaluation. We believe that the most effective, sustainable way to tackle RMNCH+A challenges involves strengthening and scaling-up existing

systems and working with the people who operate on the frontlines of decision-making, implementation and service provision. The UP TSU's work has been based on four key components which guide the structure and focus of our areas of support. These components include integration, equity, embedded support, and alignment and ownership. While the components of integration and equity are directly informed by evidence, the elements of embedded support and alignment and ownership have been adopted to facilitate the translation and application of evidence and knowledge to strengthen existing government interventions. The UP TSU adopts an **integrated lifecycle focus** to RMNCH+A, distinguishing it from 'vertical' health programs that deliver disease-specific interventions (Figure 1). In recognizing that moments throughout the lifecycle offer opportunities for linking mothers and children with critical high impact interventions, the UP TSU is concerned with improving all aspects of planning, implementation and monitoring of RMNCH+A services. **Equity** is a cross-cutting principle that guides all areas of the UP TSU's work. The UP TSU focuses the majority of its resources in the areas of the state where health and development indicators for women and children are especially poor. These areas of Uttar Pradesh were strategically selected to ensure that the UP TSU's activities can achieve population level impacts in health status amongst those with the greatest need. The UP TSU is physically and operationally co-located and **embedded** across the state, district and block levels of the Uttar Pradesh health system. At each level, UP TSU staff support government staff in designing and planning program implementation, and in strengthening skills and practices amongst clinical and frontline workers. The UP TSU has been building capacity for the health system to implement according to its own mandate, with strong government **ownership** over the process at all levels. By **aligning** its goals, objectives and work plans with government, the UP TSU has been promoting the adoption of new evidence-informed implementation, planning and training strategies that will help the GoUP to achieve meaningful RMNCH+A results.

The UP TSU has been working to ensure utilization, quality and availability of critical RMNCH+A services across the lifecycle.

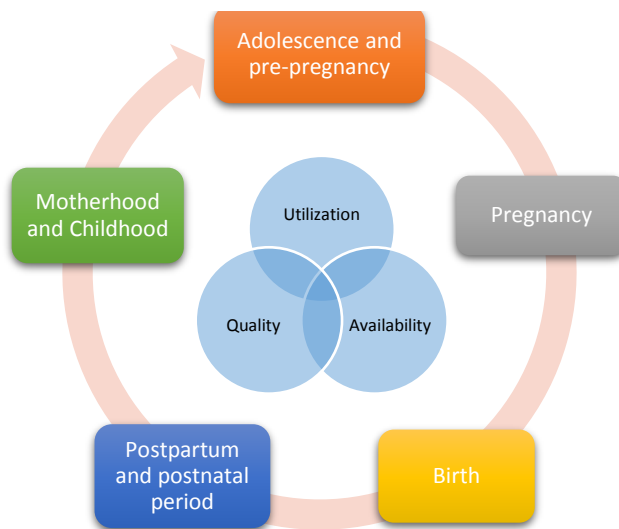


Figure 3

Given Uttar Pradesh's large population, activities need to be appropriately scaled according to need and geography to ensure the achievement of state-level improvements in health outcomes. Accordingly, the UP TSU provides both direct and diffused techno-managerial support at the various levels of the health system. Our direct mechanisms of support have been in 100 prioritized blocks across Uttar Pradesh. Containing a collective population of 31 million, these blocks have been selected in collaboration with the GoUP to ensure the achievement of health outcomes at scale. All 100 blocks are situated within the state's 25 high priority districts (HPDs). These districts have been identified by the GoUP based on health and development indicators and have a total population of 69 million. By focusing on 100 blocks within the districts with the greatest need, improvements in overall state results can be achieved. Affecting change at the block level requires enhancing techno-managerial capacity at the higher levels of health system. As such, the UP TSU also achieves impact by providing policy, planning, human resources, data and systems support to the GoUP at the state-level. In doing so, we aim to strengthen the mechanisms that shape health care delivery across Uttar Pradesh

8.3. TSU Platforms and Technical Interventions

At the **community level**, community resource persons (CRPs) have been working with frontline workers to strengthen existing community processes to improve the quantity and

quality of health care home visits to mothers and their children. The CRPs support the FLWs in the use of job aids that strengthen the existing service delivery platforms such as the Village Health and Nutrition Day (VHND) and home visits as well as the planning and review platforms such as the AAA forum (joint community planning meeting of three front-line workers: ASHA, Anganwadi Worker and Auxiliary Nurse Midwife, ANM) and Cluster meetings. The job aids include the Village Health Index Register (VHIR) and behavior change communication materials such as the Mobile Kunji. The VHIR helps ASHA (Accredited Social Health Activist) in managing outreach services to ensure entry of all beneficiaries in RMNCH+A continuum of care and ensure all receive key services. Through the VHIR, ASHA line-lists the 1000+ persons in the area covered by her, establishes the denominators for each category of services (family planning, antenatal and delivery care, postnatal care, immunization, adolescent health services etc.) and updates the services received by beneficiaries. The CRP summarises the core indicators from the VHIR and identifies the gaps along with ASHAs and ANMs at the Cluster and AAA meetings and supports ASHA's priorities. The Block Community Supervisor (BCS) consolidates and analyses the indicators in the monthly review meetings. The CRPs have also been a critical source for gaining knowledge about the constraints and opportunities for mobilizing community-level platforms to improve outcomes.

To enhance RMNCH+A primary care services at the **facility level**, nurse mentors (NM) provide on-site training support to staff nurses and ANMs. To support the delivery points for enhancing the quality of delivery and immediate postpartum care, the TSU has developed case sheets integrating the WHO safe birthing checklists and the GoI's Bed Head Ticket into a UP specific case sheet that provides guidance in the identification, management and referral of maternal and newborn complications. These case sheets have been approved by the GoUP and have been implemented in the 150 Blocks where the nurse mentors (NMs) are supporting the staff nurses and ANMs posted in labor rooms. A total of 150 NMs (100 from the TSU funds and 50 from the GoUP funds) are trained and posted to:

- (1) facilitate a team-based self-assessment to explore gaps and solutions related to facility systems

- (2) Provide clinical mentoring in safe delivery and postpartum care and IUCD insertions (including PPIUCD) to staff nurses by hands-on coaching
- (3) Provide mentoring in how to improve the quality of services by building teamwork and introducing problem solving initiatives to address other aspects of service delivery (including especially referral processes).

More specifically, the NMs focus on improving 5 provider clinical competencies:

- (1) Initial rapid critical assessment to identify complications.
- (2) Labor monitoring through partograph
- (3) Active management of third stage of labor
- (4) Essential newborn care
- (5) Frequent assessment of the mother and the newborn in the 4th stage of labor.

The NMs also support the providers in delivery points in improving the 5 facility systems:

1. Infection control including hand washing, sterilized equipment, and dis-infected labor room
2. Supply chain particularly with regard to the essential equipment, drugs and supplies in the labor room
3. Referral system that includes early detection of complications, pre-referral management and post-referral follow up
4. Service integration with the community particularly the antenatal care, birth planning and post-natal care home visits by ASHAs
5. Improved documentation including the use of case sheets and improving the GoUP's HMIS (health management information system) and MCTS (mother and child tracking system).

At the systems level, the TSU supports the GoUP to improve public health planning by developing innovative approaches to data management and utilization, supply chain management, strategic planning and strengthening existing monitoring systems. More specifically, the UP TSU has been supporting GoUP in three broad systems:

1. Improving the quality and use of data (HMIS, MCTS and other data) for program planning and review
2. Improving the preparation of annual project implementation plans

3. Strengthening the other systems such as human resources, procurement and supply etc.

The critical interventions surrounding birth that the UP TSU has been focusing are summarized in Table:

Technical interventions surrounding birth			
Pregnancy	Birth	Post-natal	Child
Screening and referral for high-risk pregnancy	• Early detection, management, referral and follow-up for complications • Partograph use for monitoring labor • Active Management of Third Stage of Labor • Essential newborn care: warmth, breastfeeding, Vitamin K, vaccine birth doses • Newborn resuscitation, referral, follow-up • Kangaroo Mother Care, referral and follow up of premature and low birth weight babies • Corticosteroids for preterm labor • Chlorhexidine for cord care	• Community based integrated maternal newborn care assessment • Community-based assessment, identification and referral for newborn illnesses • Exclusive and complementary breastfeeding • Management of Sepsis and Low Birth Weight babies	Improved vaccination coverage

Table 1

8.4. Programme implementation

IHAT adopts the Program Science approach, systematic application of scientific knowledge to improve the design, implementation and evaluation of public health programs.

The objectives are

- Support leadership to focus more on outcomes
- Improve the performance of front-line workers (FLW)
- Improve facility performance, coverage and quality of care
- Enhance accountability systems [internal and external] to ensure quality of service delivery at scale
- Improve overall planning, policy formulation and coordination



Figure 4

RMNCH+A project aims to support GoUP in improving the quality and quantity of frontline worker interactions at the community level and within households to drive the priority RMNCH+A behaviors. It also focuses on improving quality of RMNCH+A services at health facilities including supporting critical health systems level improvements.

The project leverages across three platforms of community, facility and systems to provide the necessary support to the functionaries for bringing in a holistic change in acceptance of health-promoting behaviors for RMNCH+A. At each level, techno-managerial support is provided to not only understand the bottlenecks but also undertake hand holding of the necessary intervention.

8.5. Impact of the project

The RMCNH+A project is supporting in strengthening integrated-service delivery platform called Village Health & Nutrition Day (VHND), where women and their children could access key nutrition and RMNCH+A services from frontline workers.

The CRP provides support on logistics, community mobilization, and quality of services being offered at the VHNDs. TSU's support has been instrumental in shaping the quality of VHND sessions with a large majority of them now having improved infrastructural provisions and service availability, thereby emerging as the single most important and easily accessible platform for receiving integrated health and nutrition services for pregnant women and children.

Dissertation

Project Report

Topic- Mapping of Human Resource
Availability and facilities on FRUs (First Referral
Units) in 25 HPDs

Chapter 2

Project Introduction and review of Literature

9. Introduction

With a population of roughly 200 million, Uttar Pradesh (UP) is India's most populous state, accounting for approximately one sixth of India's population. Maternal, neonatal, infant and child mortality rates are substantially higher in UP than in the rest of India. The state has the greatest burden of under-age-5 mortality in all of India (28% of all deaths; 364,000 deaths/year).

The subject of first referral units defined as, a district or sub-divisional hospital or community health centre which has the facilities for obstetric surgery, blood transfusion, anaesthesia, specialist pediatric care, operation theatre and required equipment. This centre also has the facilities for MTP, tubectomy, vasectomy and pediatric care for high risk neonates and other severe problems of early childhood. It provides specialist services in addition to all the services available at a PHC.

Operationalization of First Referral Units (FRUs) is an important component of the Reproductive and Child Health (RCH) Programme. The facility (district hospital, sub-divisional hospital, community health Centre etc.) can be declared a fully operational First Referral Unit (FRU) only if it is equipped with: 24-hour delivery services including normal and assisted deliveries, Emergency Obstetric Care including surgical interventions like Caesarean Section, New-born Care, Emergency Care of sick children , Full range of family planning services, Safe Abortion Services, Treatment of STI / RTI Blood Storage Facility, Essential Laboratory Services , Referral (transport) Services.

The development of FRUs in a district by ensuring that they have the required number of specialists (Gynaecologist, Anaesthetics & Pediatrician) in position or have access to the services of specialists on call, would be a preferred option rather than having a number of FRUs which may not be providing full range of services. The information on location of such emergency services/FRUs will be made available to all villages in the area so that the population knows where they should reach for getting appropriate emergency care. The provision of emergency care has also to be supported by appropriate referral services from sub-centers to PHCs and from PHCs to the functioning First Referral Units providing emergency services.

The long-term goal should focus on planning for operationalization of the defined number of CEmonC and BEmonC Centres. These numbers are based on WHO recommendations of at least 10 maternity beds per 1000 pregnant women with 80 % bed occupancy and three days of stay. This norm has been translated into the number of BEmonC/CEmonC facilities as required in India where an L2 delivery point is expected to conduct at least 10 deliveries per month and an L3 delivery point at least 20 deliveries per month (including C-Section).

Health facilities can be classified as Basic Emergency Obstetric Care (BEmonC) and Comprehensive Emergency Obstetric Care (CEmonC) based on the level of services provided. These are the key interventions for treating the vast majority of maternal complications and for resuscitation of the newborn after birth. Currently, the population coverage for BEmonC and CEmonC facilities in India varies from state to state and is unevenly distributed. High-focus districts have very few functional facilities and therefore poor coverage, whereas bigger cities or metros have better coverage.

Health planners and managers should plan for operationalization of facilities, keeping in view both short- and long-term goals. Short-term planning should focus on making delivery points functional to provide comprehensive RMNCH services as defined for each level and ensuring adequate geographical coverage. This should be supported by a referral transport system that reaches the patient within 30 minutes of receiving a call and a health facility within the following 30 minutes.

Human resources are the largest component of health care delivery system in India and motivated health workers are essential for improving health outcomes. The main focus of the study is to map the availability of human resource services at the facility level which strengthen the services of FRUs because mapping of human resource within the districts is one of the important step. This mapping will help to analyze the status of human resource in 25 high priority districts and enhance RMNCH+A primary care services at the facility level, the level of manpower should be suitable to support the delivery points for enhancing the quality of delivery. Facilities selected for operationalizing FRU services aim to provide a similar or increased strength of medical personnel. In addition, adequate number of nursing staff to work in Operation Theatre, Labour Room and In-patient wards will also need to be carefully determined.

10. Review of Literature

India's mandate for Universal Health Coverage (UHC) depends, to a great extent, on adequate and effective Human Resources for Health (HRH) providing care at primary, secondary and tertiary levels in both the public and private sectors. (3) States are presently struggling with the complexities of escalating human resource costs, additional demands on the available health work force, compounded by chronic HRH shortages, uneven distribution and skill-mix imbalances. India's health system is among the country's highest employers and absorbs almost two-thirds of the health budget for allocations in deployment, education, training, etc. Reform of HRH will therefore be the keystone of Universal Health Coverage reform in the country. (4)

Health care delivery in India has been envisaged at three levels namely primary, secondary and tertiary. The primary and secondary level of health care essentially includes Primary Health Centers (PHCs) and Community Health Centers (CHCs) respectively. CHCs are public health facility, designed to provide referral health care for cases from the primary level and for cases in need of specialist care approaching the CHC directly whereas PHCs are the cornerstone of rural health services; a first port of call to a qualified doctor of the public sector in rural areas for the sick and those who directly report or referred from Sub-centers for curative, preventive and promotive health care. Some PHCs has been selected which provide round the clock services by increasing the number of medical officers and staff nurses and called as 24X7 PHCs. (5)

During the past eleven Five-Year plans, India has substantially upgraded and increased health facilities. The country presently has 1, 47, 069 Sub Health Centres (SHCs), 23,673 Primary Health Centres (PHCs), 4,535 Community Health Centres (CHCs) and 12,760 hospitals in the Government sector. As per the District Level Household and Facility Survey -III (DLHS 2007-2008), 62% of PHCs are conducting less than 10 deliveries in a month, 10% of CHCs do not provide 24x7 normal delivery services, 34% of CHCs do not have operation theatre facilities, only 19% of CHCs offer caesarean section deliveries, only 9% of CHCs have blood storage facilities and of the 4,535 CHCs, only 754 are functional as per IPHS norms.

It is imperative that the existing infrastructure and specialist manpower at FRUs/CHCs is looked in to critically and re-organized, and mis-matches between infrastructure and manpower corrected. At the first instance it would be desirable to ensure provision of quality Emergency Care Services at least at the district hospital and sub-district hospital followed by FRUs/CHCs. It is considered imperative that the States look at the existing facilities and identify clearly their requirements for putting into place fully functional FRUs. It is envisaged that by the end of the Tenth Five Year Plan, each district should have at least 3-4 fully functional facilities which are equipped to provide the full range of Emergency Obstetric and New-born Care on a round-the-clock basis. (6)

The community health Centre was envisaged to be a fully functional FRU (defined to mean a facility providing full range of FRU services including C-section, along with facilities for handling other medical emergencies) and, accordingly, a minimum strength of 4 medical officers (who are either qualified or especially trained to work as surgeon, obstetrician, physician and paediatrician) was recommended. Facilities selected for operationalizing FRU services should, therefore, aim to provide a similar or increased strength of medical personnel. In addition, adequate number of nursing staff to work in Operation Theatre, Labour Room and In-patient wards will also need to be carefully determined.

According to IPHS, manpower availability at the facility level including one paediatrician should be posted at each FRU and will be in charge of the Stabilization Unit. Regular Obstetrician & Anaesthetics/ Trained in LSAS should be available at each FRU for operative procedure. Training of the Doctors and Nurses posted at Stabilization Unit will undergo Facility based care training. In the study of IPHS it was found that about half of BMCs had deficiency of specialist. Some medical officers (MO's) were trained in integrated management of neonatal and childhood infection (IMNCI) and emergency obstetric care (EmOC). (7)

Referral to proper EmOC facility is very important as precious time is wasted in moving from one facility to another resulting in loss of lives and increased complications. Another study

conducted in Andhra Pradesh showed that among the 98 women who used hospital facilities nearly sixty percent went to two or more hospitals. (8)

Studies from other countries also provide some evidence. An enquiry into causes of delay and death “Mothers Brought Dead” in Jinnah Post Graduate Medical Centre Karachi found that out of 118 pregnant or recently delivered women in 10 years period (1981-1990) who were brought dead, 29 couldn’t reach because of unavailability of transport, in 14 cases the reason was time lost in transfer from one place to another and for 10 patients the delay was due to delay in referral by maternity homes

Human resources handling referrals play a major part in its success. In a study in Ghana it was found that many TBAs trained in safe delivery were performing the high risk deliveries that they have been taught to refer. The essential features of the referral system are the use of a maternity record card that is kept by the woman, effective communication among primary care providers and between the primary and secondary care levels, an efficient emergency transport system, and referral back to primary level as soon as possible.

The government system provides the bulk of maternal health services. Although the service infrastructure has improved in stages, the availability of maternal health services in rural areas remains poor because of low availability of human resources, especially midwives and clinical specialists, and their non-residence in rural areas. Various national programmes, such as the Family Planning, Child Survival and Safe Motherhood and Reproductive and Child Health (phase 1 and 2), have attempted to improve maternal health; however, they have not made the desired impact either because of an earlier emphasis on ineffective strategies, slow implementation as reflected in the poor use of available resources, or lack of effective ground-level governance, as exemplified by the widespread practice of informally charging users for free services. Thirty-two percent of women delivered in institutions in 2005-2006. A 2006 government scheme to give financial incentives for delivering in government institutions has led to substantial increase in the proportion of institutional deliveries. The availability of safe abortion services is limited, resulting in a large number of informal abortion service providers and unsafe abortions, especially in rural areas. The recent scheme of *Janani Suraksha Yojana* provides an opportunity to improve maternal and neonatal health, provided the quality issues can be adequately addressed. (9)

Chapter 3

Objective of the study and Methodology

11. Objective of the study

- To map the availability of maternal and newborn services in the 25 high priority districts of Uttar Pradesh as per Maternal and Newborn Health tool Kit by Government of India (GoI).
- To map the availability of Human resource services at the facility level of 87 first referral units in High priority districts of Uttar Pradesh.
- To compare the availability of 9 signal functions at the facility level of 87 first referral units in High priority districts of Uttar Pradesh.

12. Methodology

The research study was descriptive study. Questionnaire was design to collect the data from 87 facilities in HPDs (High Priority districts).

- a) **Sampling size:** All FRU's in 25 HPDs (87 Facilities across the FRU'S)
- b) **Sampling Method:** Purposive Sampling.
- c) **Study Area:** Study was conducted on 87 FRUs in 25 HPDs of Uttar Pradesh
- d) **Study Duration:** 3 months
- e) **Data source:** Primary data
- f) **Data collection tool:** Questionnaire (FRU Assessment tool)
- g) **Data Collected by:** ZTS &DTS
- h) **Data Collection Duration:** 10 Days

Chapter 4

Study Analysis of the Project

13. Study analysis

13.1. Assessment scope (Study Area)

The Assessment area for the mapping of human resource availability and found out the different facilities (CHC, PHC & DH) where there is a need to boost up the human resource availability as per the delivery load.

- 25 high priority districts with 294 Blocks
- 87 First referral units (FRU) health facilities
 - 61 Community Health centers-FRUs (CHC-FRUs)
 - 26 District Hospitals (DCH,DWH,DH)

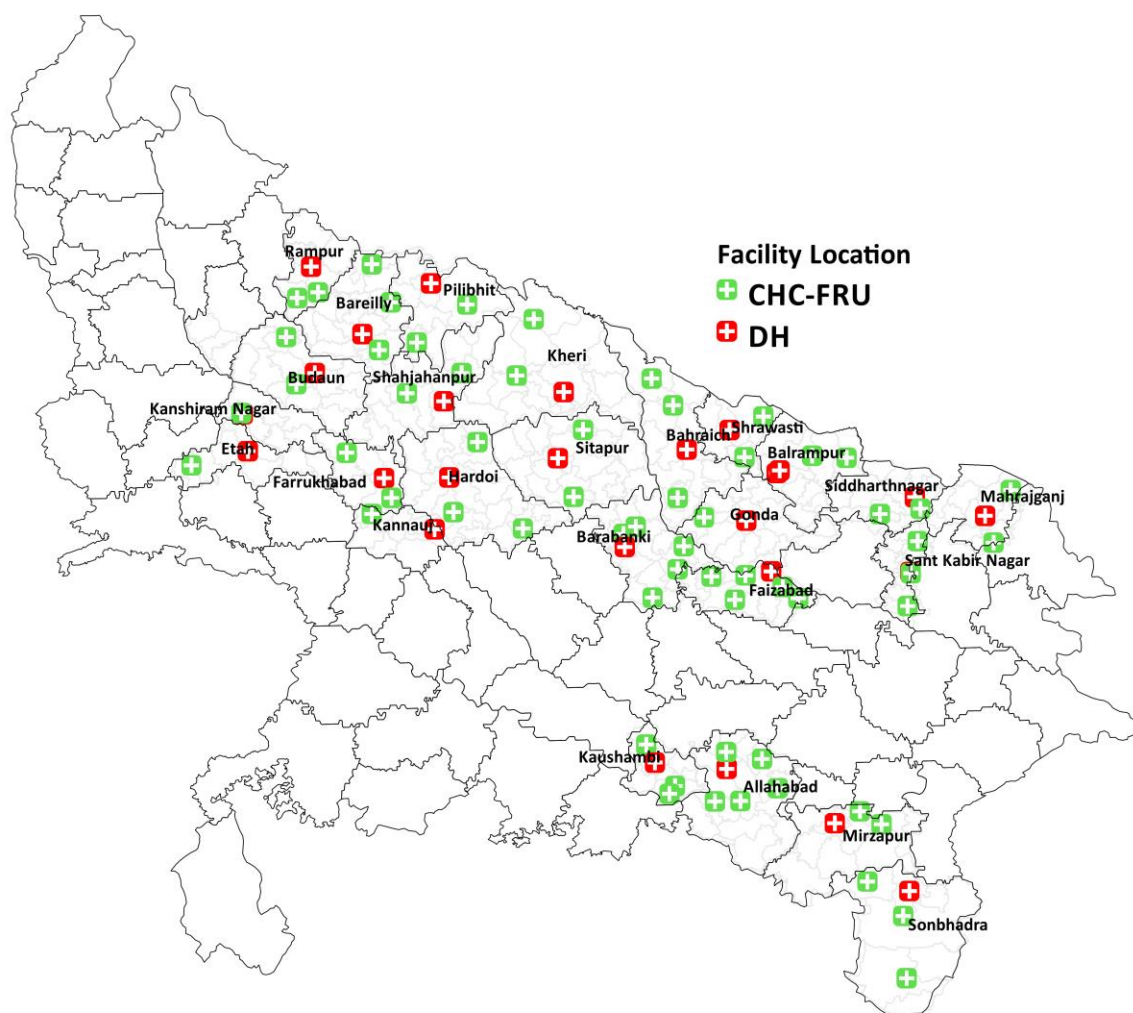


Figure 5

13.2. Background information of 87 facilities in 25 Districts

Distribution of Facilities was done on the basis of Zonal Division by program team. The 87 facilities come under these four zones. So, In the study analysis the distribution of 87 FRU's in 25 HPDs is define on the basis of these four zones. In these four zone facilities is divided on the basis of area distribution like:

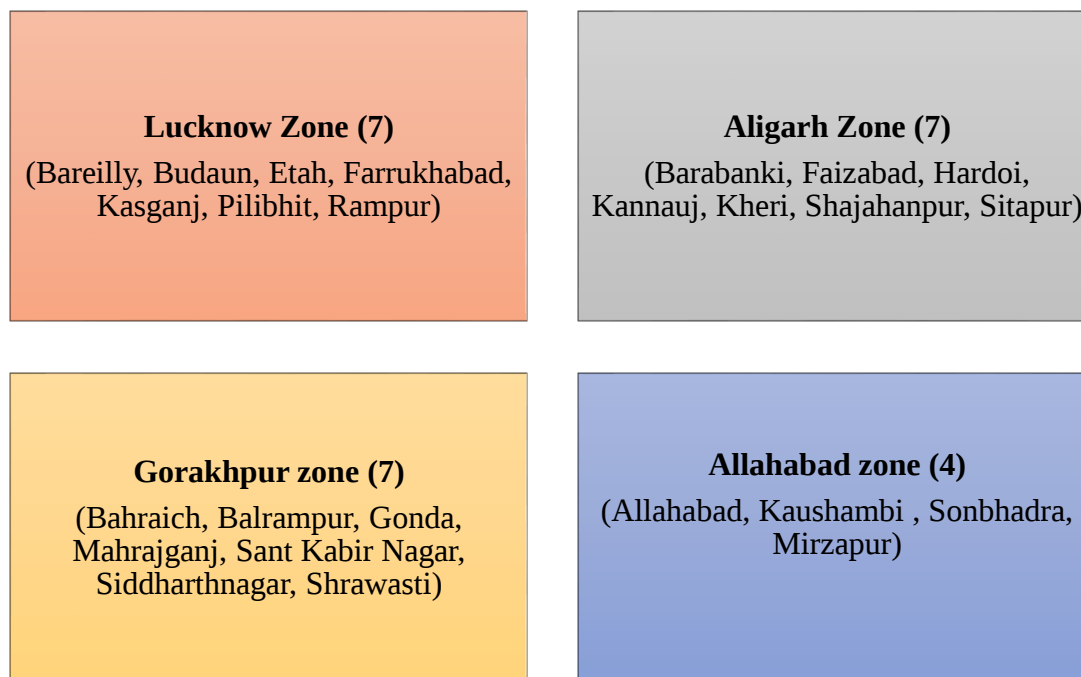


Figure 6

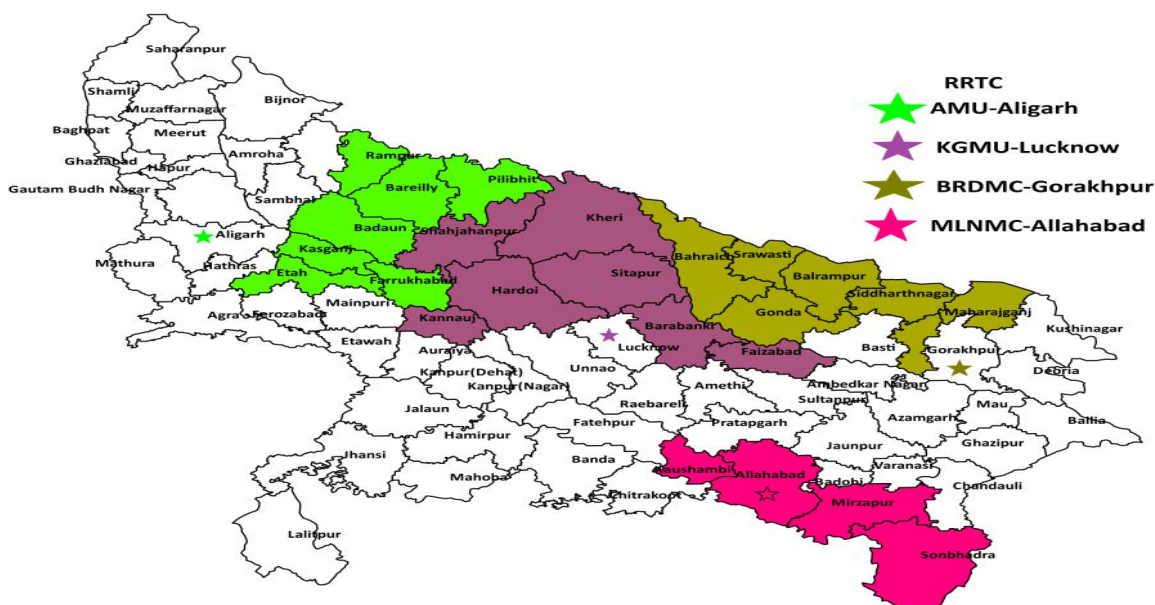


Figure 7

13.3. Distribution of facilities on the basis of delivery load

In the analysis, the further distribution of facilities on the basis of delivery load according to the facility, the delivery load was categorized in to three category on the basis of *Maternal and newborn care tool kit*

Table2: Categorize as per Delivery Load	
Delivery (Average)	# Facilities
Category 1 (Less than 200 per month)	34
Category 2 (Between 200 to 500 per month)	43
Category 3 (More than 500 per month)	10

In table 2, categorization of facilities is divided on the basis of delivery load like, **In cat I** there are 34 facilities falling under 25 HPDs among 87 facilities and the other category follow the same pattern.

Table 3: Categorize the facilities on the basis of Different Zones					
Delivery Cat	Lucknow Zone	Aligarh Zone	Gorakhpur Zone	Allahabad Zone	Total
Cat I (<200)	12	3	8	11	34
Cat II (200-500)	10	16	13	04	43
Cat III (>500)	05	01	02	02	10
Total	27	20	23	17	87

In this table, the numbers shows the categorization of facilities on the basis of four zones under which the different facilities falling among 25 HPDs.

Table 4: # of facilities in four Zones			
Zones	# CHC FRU	# DH	Total
Lucknow	20	07	27
Aligarh	13	07	20
Gorakhpur	15	08	23
Allahabad	13	04	17
Total	61	26	87

In this table, categorization of CHC-FRU, DH is done on the basis of four zones, under these four zones different districts segmented according to the area.

So, like the subtotal of facilities (CHC-FRU, DH) falling under Lucknow zone presented in the table with the sum total of the all 87 facilities.

13.4. Findings on Clinical Human Resource Assessment

The first step to assess the availability of Clinical Human Resource to put the Expected number of Human Resource as per the guidelines (*Maternal and newborn care tool kit*) according to the different categories (I, II & III) under which the different facilities segmented..

Expected-Clinical Human Resource availability as per delivery load

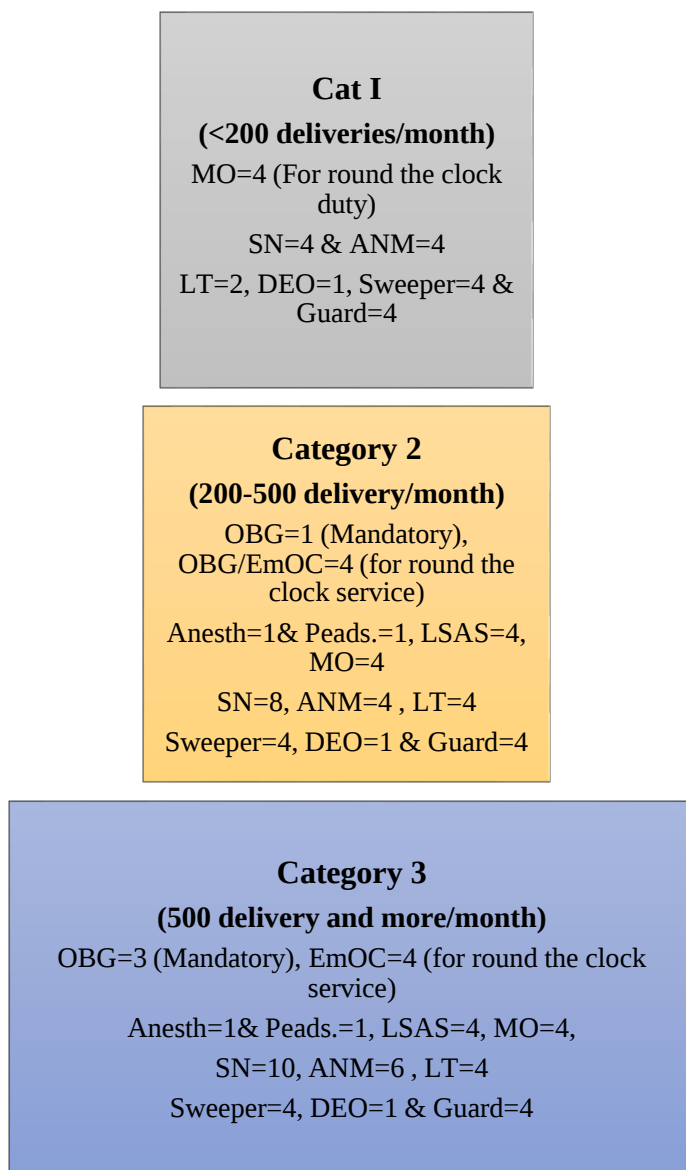


Figure 8

The second step to put the Expected 9 signal Functions which should be available at FRU facilities because health facilities can be classified as Basic Emergency Obstetric Care (BEmonC) and Comprehensive Emergency Obstetric Care (CEmonC) based on the level of services 'signal functions' of health facilities should provide. These are the key interventions for treating the vast majority of maternal complications and for resuscitation of the newborn after birth. The level of signal functions defined as:

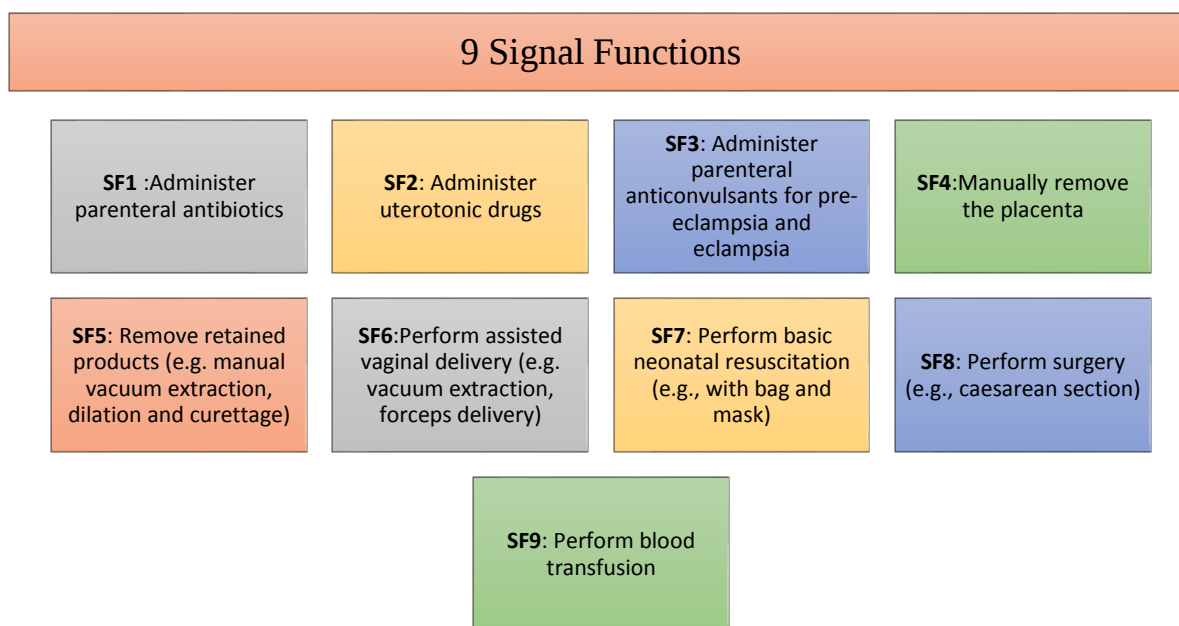


Figure 9

The flow of the analysis in the report have mention all four zones which shows the HR Status at facilities with their categorization, training status of HR at facilities with their categorization and availability of 9 signal functions at 87 facilities.

a) Analysis of HR Status- (Facilities under Lucknow zone)

The finding of this analysis of FRU Assessment specifically target on human resource status at 87 facilities of 25 HPDs. The first area of analysis is Lucknow zone so, there are total 27 facilities under Lucknow zone.

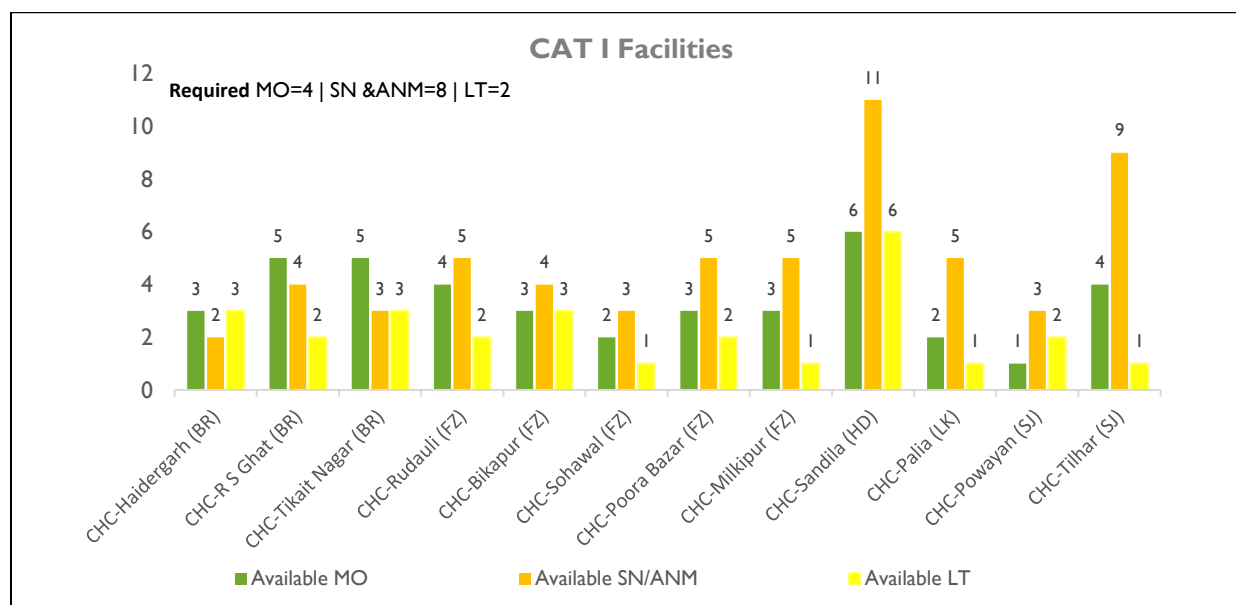


Figure 10

Interpretation: This analysis shows that in category I (<200 delivery/month) majority of facilities have required number of MO MBBS and SN/ANM, but some facilities do not have required number of lab technicians (LT).

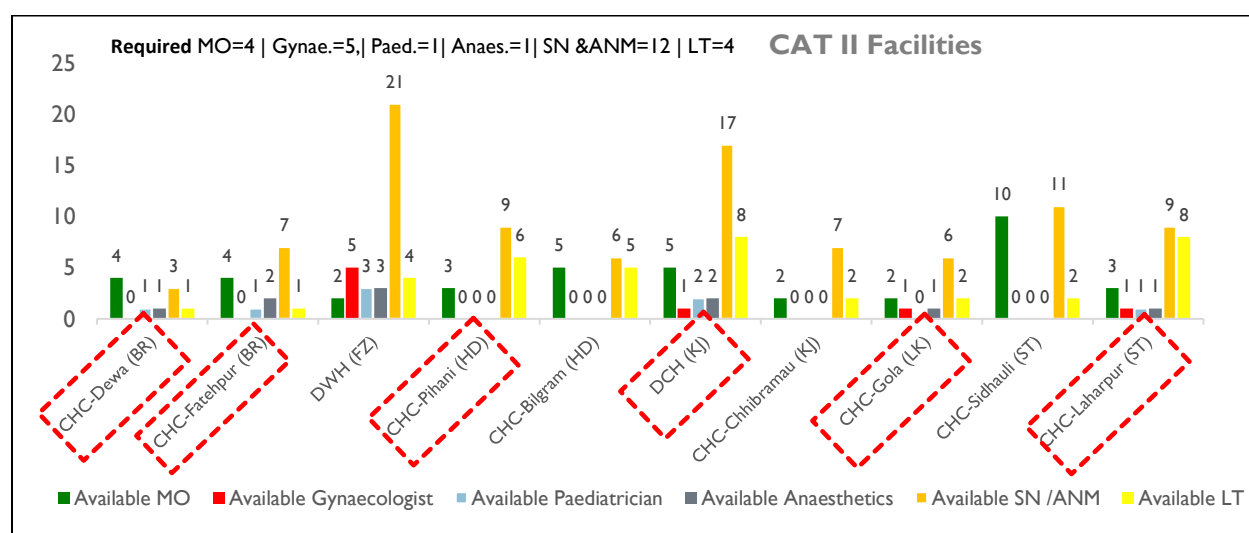


Figure 11

Interpretation: In this graph of Category II, Majority of highlighted facilities don't have required number of Gynaecologist and Anaesthetics which is a concerning issue for these facilities.

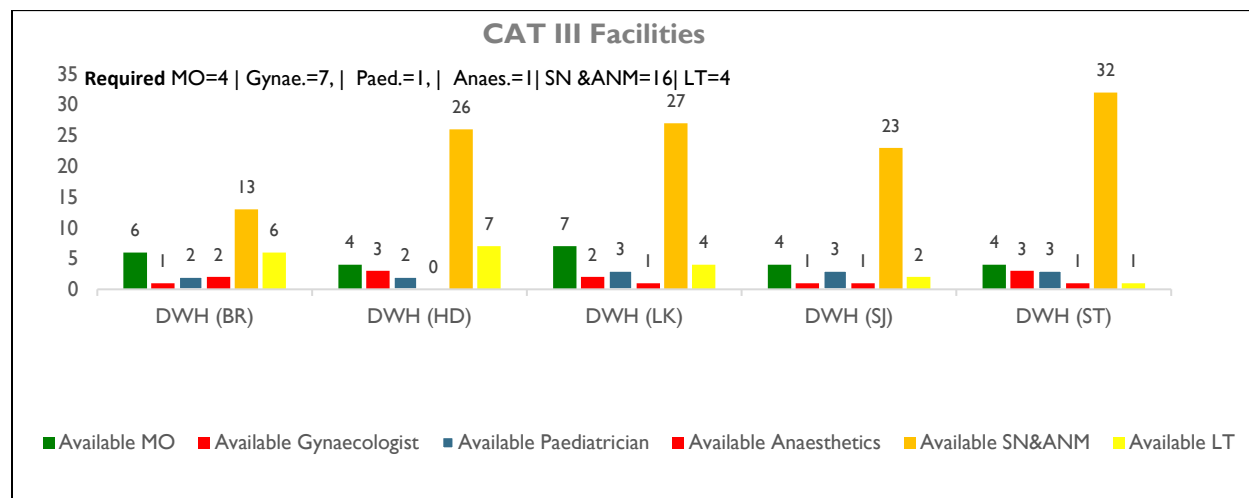


Figure 12

Interpretation: This analysis shows that in category III (<500 delivery/month) majority of facilities have required number Human Resource availability. So, the status of Cat III facilities in Lucknow zone is good.

Table 5: Training status of Clinical Human Resource (Lucknow zone)								
Lucknow Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	44	41	4	1	4	1	1	3
Cat.2 (# of Facilities 10)	40	40	2	3	6	4	3	5
Cat.3 (# of Facilities 5)	20	25	0	1	0	0	6	1

Interpretation: This table shows that in Cat 2 & 3 the training status for BEmonC is not appropriate as compared to the availability of staff.

BEmonC training is required Specifically for MO for the duration of minimum 10 days and the trainers are Gynaecologist and Pediatricians.

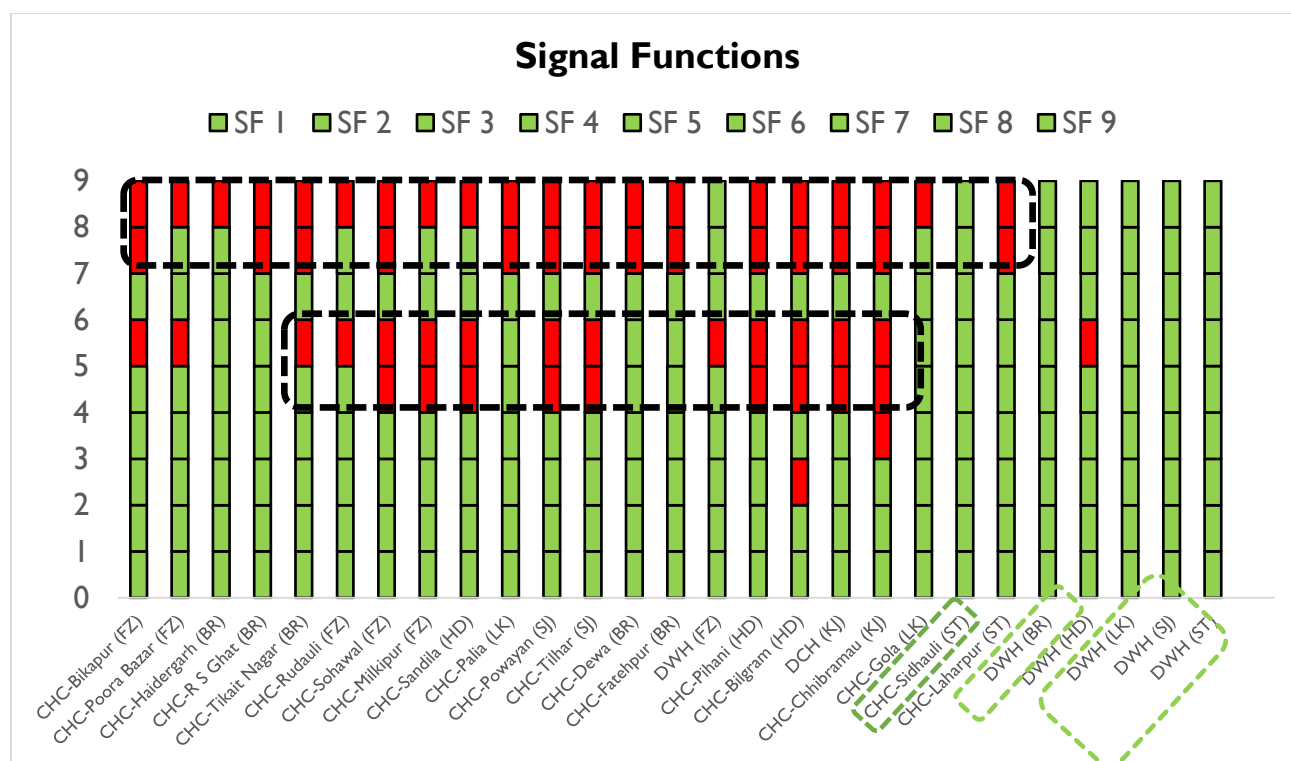


Figure 13

SF1: ADMINISTER PARENTERAL ANTIBIOTICS

SF2: ADMINISTER UTEROTONIC DRUGS

SF3: ADMINISTER PARENTERAL ANTICONVULSANTS FOR PRE-ECLAMPSIA AND ECLAMPSIA

SF4: MANUALLY REMOVE THE PLACENTA

SF5: REMOVE RETAINED PRODUCTS (e.g. manual vacuum extraction, dilation and curettage)

SF6: PERFORM ASSISTED VAGINAL DELIVERY (e.g. vacuum extraction, forceps delivery)

SF7: PERFORM BASIC NEONATAL RESUSCITATION (e.g., with bag and mask)

SF8: PERFORM SURGERY (e.g., caesarean section)

SF9: PERFORM BLOOD TRANSFUSION

Interpretation: This analysis shows that in Lucknow zone, only five facilities have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

b) Analysis of HR Status- (Facilities under Aligarh zone)

There are total 20 facilities with categorization under Aligarh zone mention in table 4.

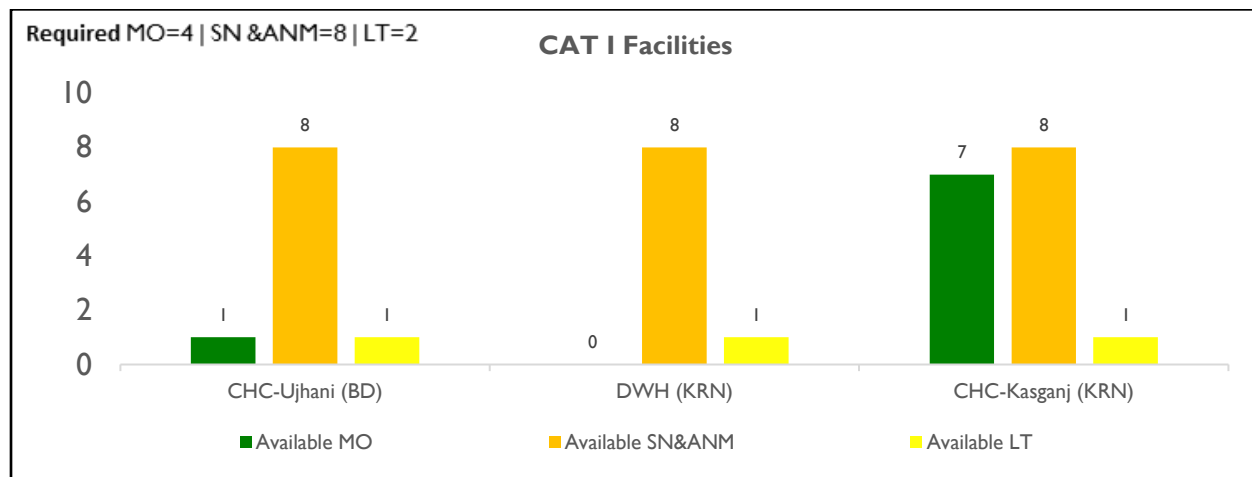


Figure 14

Interpretation: This analysis shows that in category I (<200 delivery/month) First two facilities do not have required number of MO MBBS and lab technicians (LT).

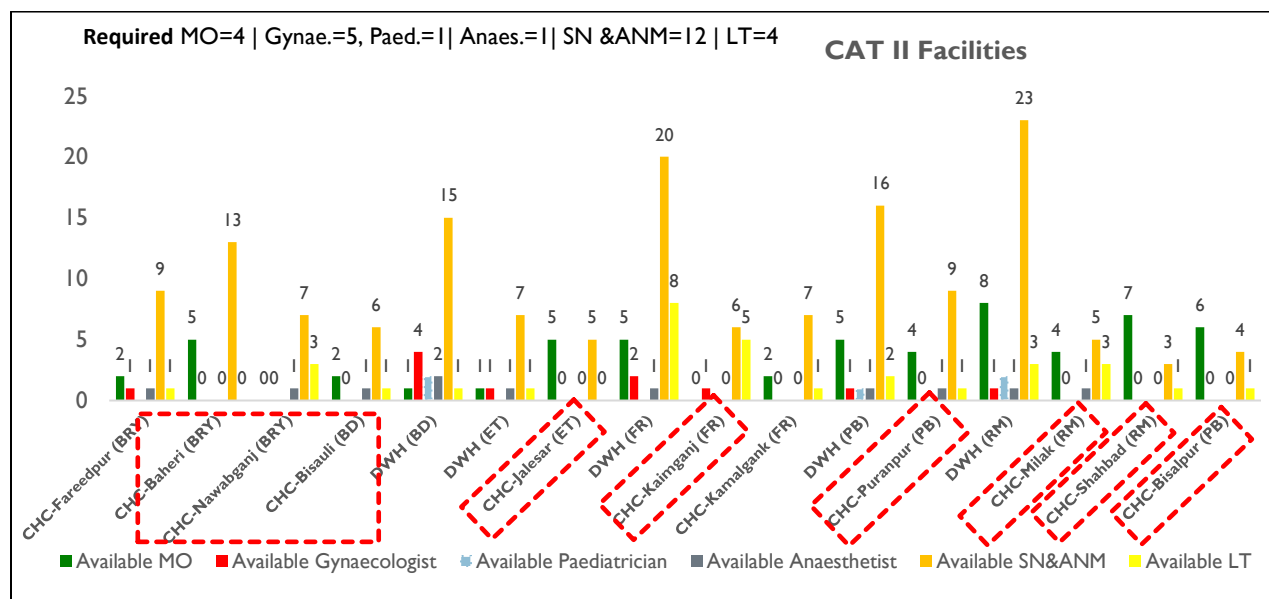


Figure 15

Interpretation: This analysis shows that in category II (200-500 delivery/month) Majority of highlighted facilities do not have required number Gynaecologist.

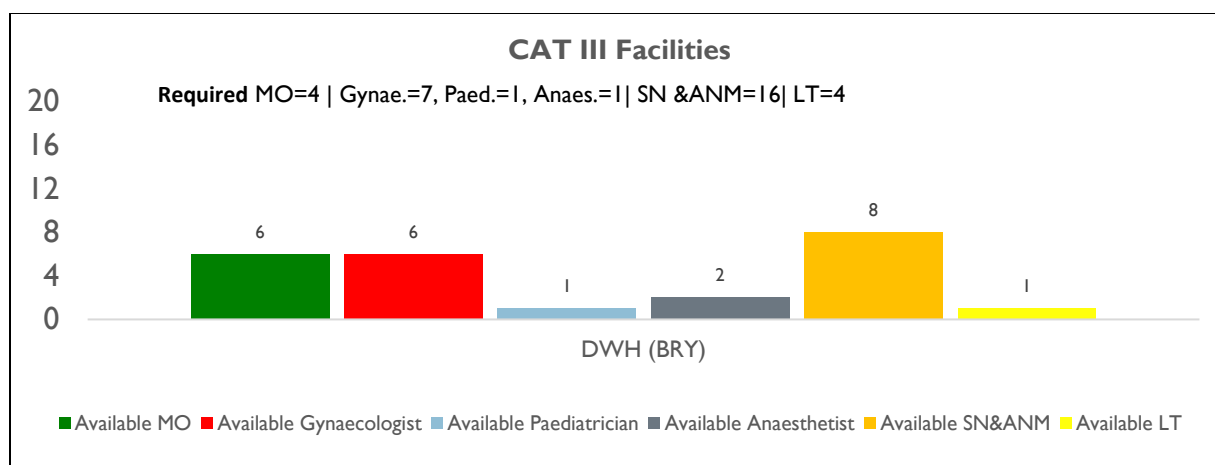


Figure 16

Interpretation: This analysis shows that in category III (>500 delivery/month) District Hospital Bareilly have required number of clinical staff except SN & ANM.

Table 2

Table 6: Training status of Clinical Human Resource (Aligarh zone)								
Aligarh Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	14	8	7	7	0	0	0	2
Cat.2 (# of Facilities 10)	64	57	0	2	5	0	3	6
Cat.3 (# of Facilities 5)	4	4	0	0	0	0	0	0

Interpretation: This table shows that in Cat 2 & 3 the training status for BEmonC and NSSK is not appropriately administer at the facility level.

NSSK training is required Specifically for MO, ANM, and SN for the duration of minimum 2 days and the trainers are MO and Pediatricians.

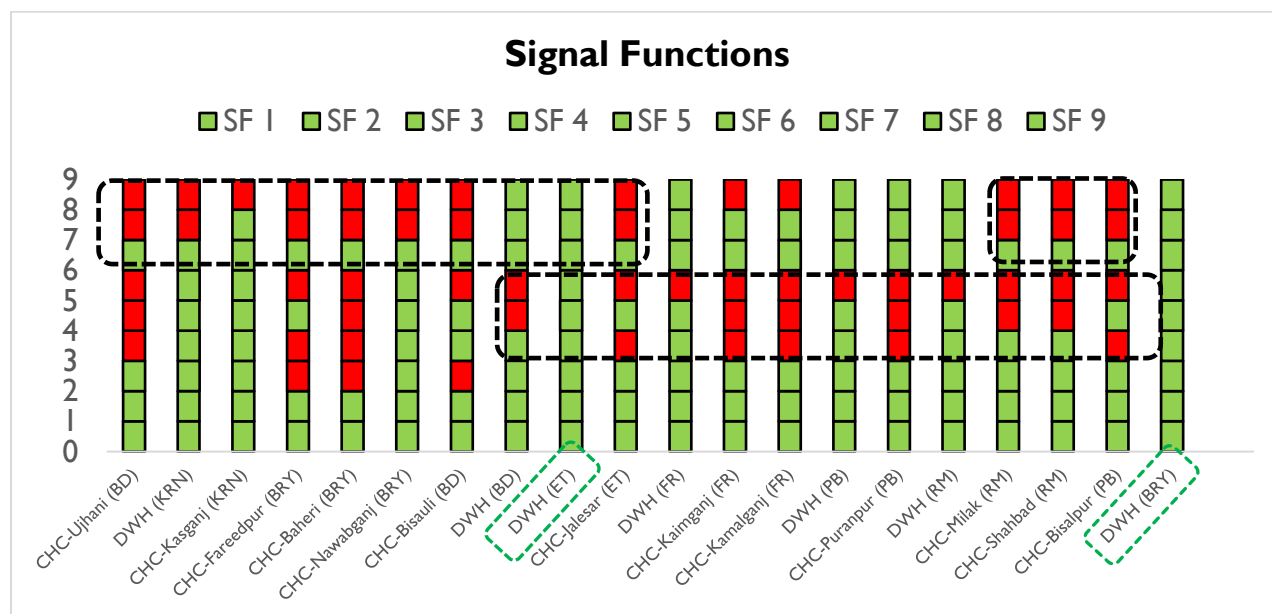


Figure 17

SF1: ADMINISTER PARENTERAL ANTIBIOTICS

SF2: ADMINISTER UTEROTONIC DRUGS

SF3: ADMINISTER PARENTERAL ANTICONVULSANTS FOR PRE-ECLAMPSIA AND ECLAMPSIA

SF4: MANUALLY REMOVE THE PLACENTA

SF5: REMOVE RETAINED PRODUCTS (e.g. manual vacuum extraction, dilation and curettage)

SF6: PERFORM ASSISTED VAGINAL DELIVERY (e.g. vacuum extraction, forceps delivery)

SF7: PERFORM BASIC NEONATAL RESUSCITATION (e.g., with bag and mask)

SF8: PERFORM SURGERY (e.g., caesarean section)

SF9: PERFORM BLOOD TRANSFUSION

Interpretation: This analysis shows that in Aligarh zone, only two facilities (DWH-Etah & DWH-Bareilly) have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

Majority of facilities do not have signal function 8&9 (Perform Surgery and Perform Blood Transfusion) which is very essential for functioning of any FRU.

c) Analysis of HR Status- (Facilities under Gorakhpur zone)

There are total 23 facilities with categorization under Gorakhpur zone mention in table 4.

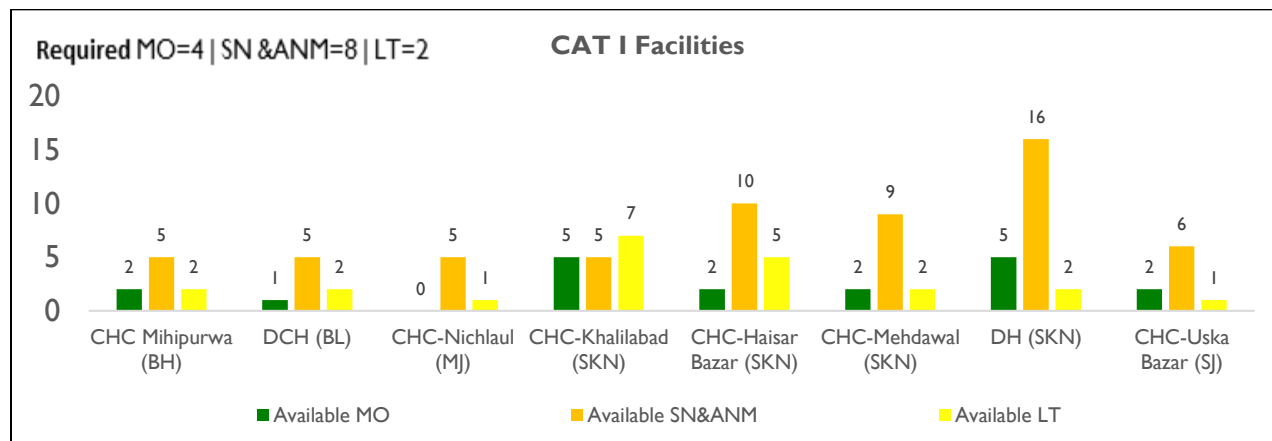


Figure 18

Interpretation: This analysis shows that in category I (<200 delivery/month) of Gorakhpur zone, Majority of facilities do not have required number of MO MBBS.

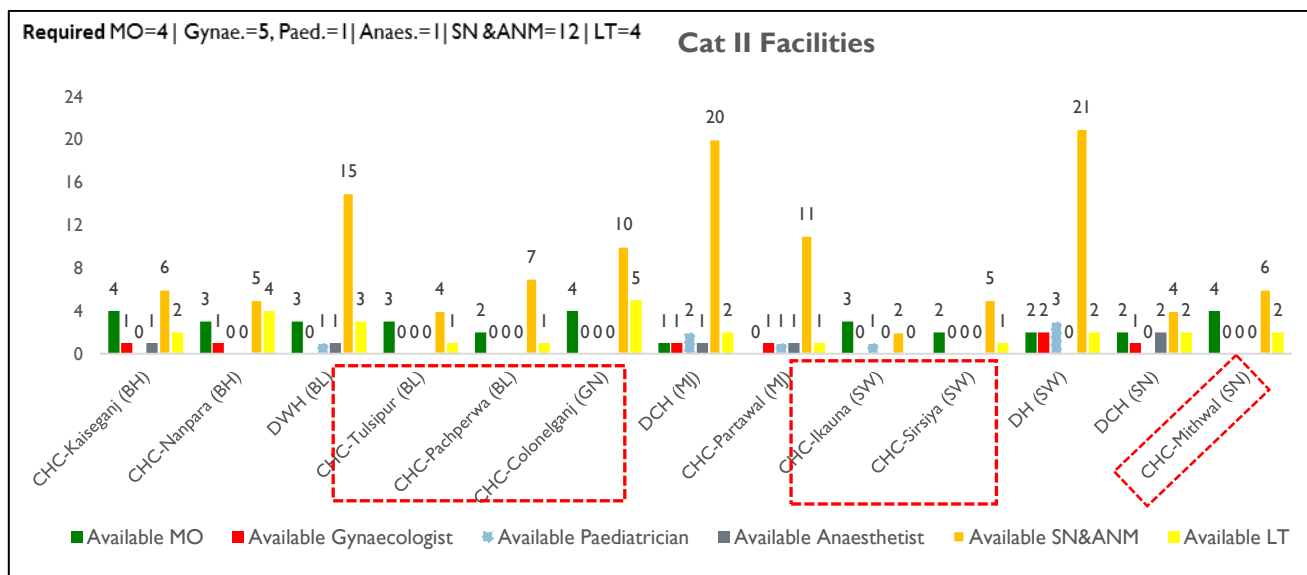


Figure 19

Interpretation: This analysis shows that in category II (200-500 delivery/month) of Gorakhpur zone, Majority of facilities do not have required number of Gynaecologist and Anaesthetics at the highlighted facilities in the graph which is highly required of any facilities that indirectly increase the quality of maternal services.

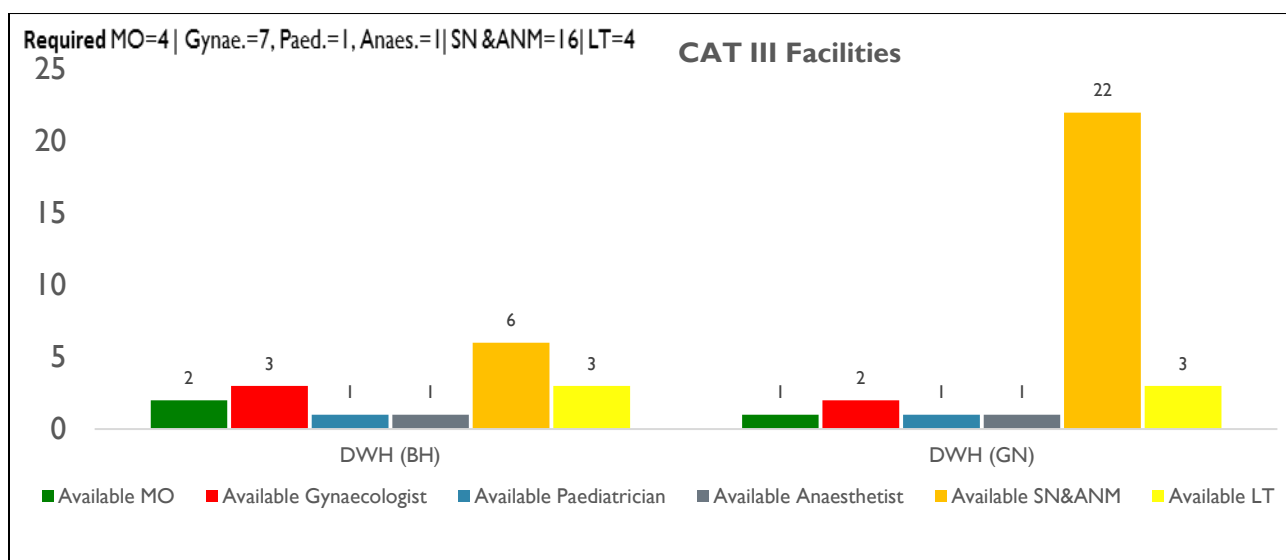


Figure 20

Interpretation: This analysis shows that in category III (>500 delivery/month) of Gorakhpur zone, facilities do not have required number of Gynaecologist and SN/ANM at the facilities.

Table 7: Training status of Clinical Human Resource (Gorakhpur zone)								
Gorakhpur Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	32	19	0	0	0	0	0	2
Cat.2 (# of Facilities 10)	52	33	2	2	6	2	2	7
Cat.3 (# of Facilities 5)	8	3	0	0	0	0	0	0

Interpretation: This table shows that the training for BEmonC, FBNC and MTP is not properly administer at the facility level which is needed for MO's.

FBNC training is required for Pediatricians., MO and SN for the duration of minimum 4 days and the trainers are Pediatricians.

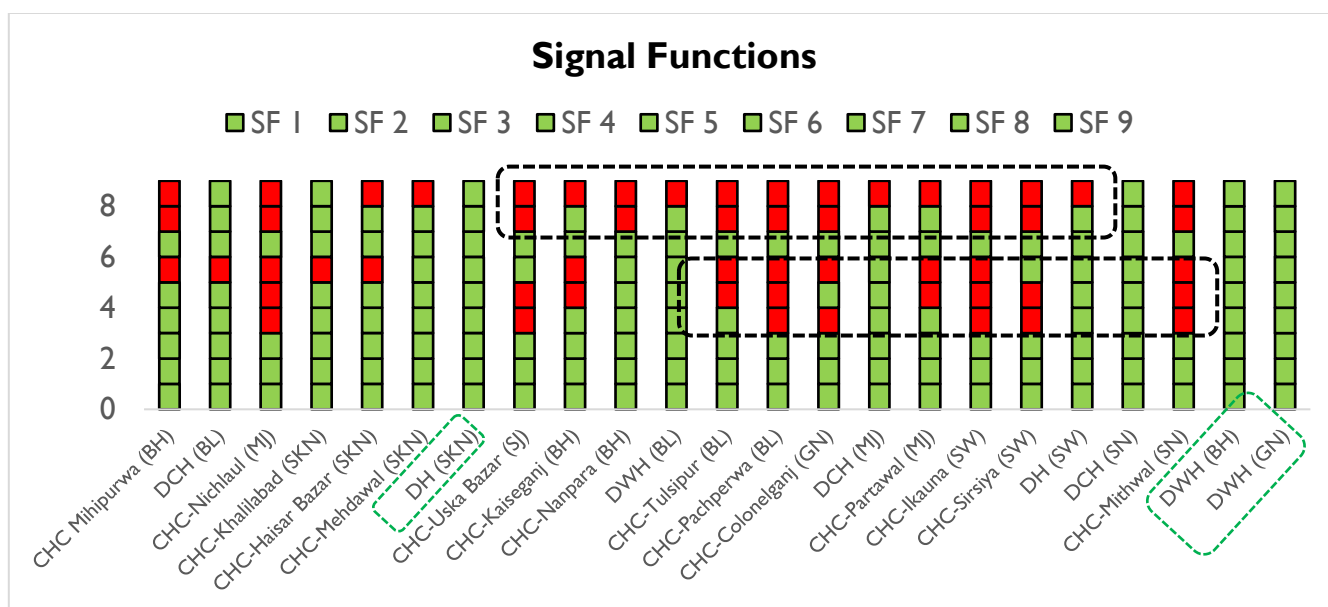


Figure 21

SF1: ADMINISTER PARENTERAL ANTIBIOTICS

SF2: ADMINISTER UTEROTONIC DRUGS

SF3: ADMINISTER PARENTERAL ANTICONVULSANTS FOR PRE-ECLAMPSIA AND ECLAMPSIA

SF4: MANUALLY REMOVE THE PLACENTA

SF5: REMOVE RETAINED PRODUCTS (e.g. manual vacuum extraction, dilation and curettage)

SF6: PERFORM ASSISTED VAGINAL DELIVERY (e.g. vacuum extraction, forceps delivery)

SF7: PERFORM BASIC NEONATAL RESUSCITATION (e.g., with bag and mask)

SF8: PERFORM SURGERY (e.g., caesarean section)

SF9: PERFORM BLOOD TRANSFUSION

Interpretation: This analysis shows that in Gorakhpur zone, only three facilities (DWH-Bahraich, Gonda & DWH-Sant kabir Nagar) have all 9 signal functions and other highlighted facilities do not have all 9 signal functions in the given graph.

d) Analysis of HR Status- (Facilities under Allahabad zone)

There are total 17 facilities with categorization under Allahabad zone *mention in table 4.*

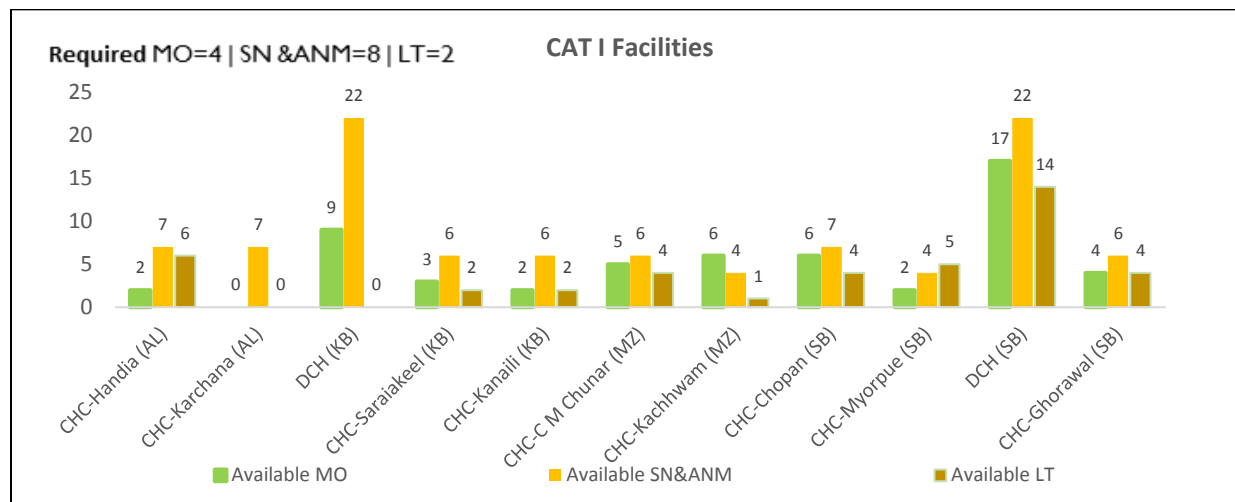


Figure 22

Interpretation: This analysis shows that in category I (<200 delivery/month) of Allahabad zone, Majority of facilities have required number of clinical human resource.

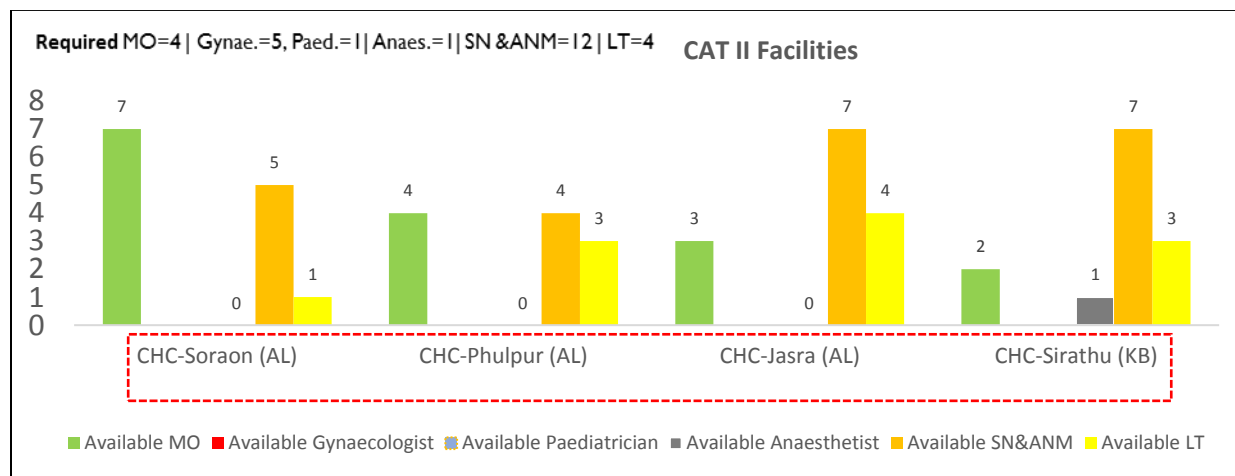


Figure 23

Interpretation: This analysis shows that in category II (200-500 delivery/month) of Allahabad zone, all four facilities do not have required number of Gynaecologist and Anaesthetics at the highlighted facilities in the graph.

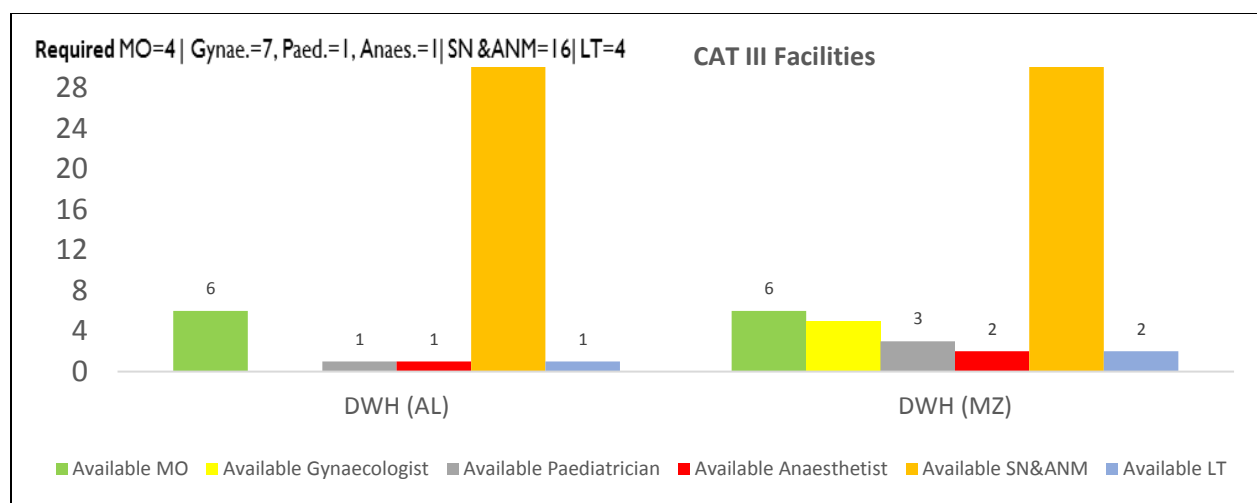


Figure 24

Interpretation: This analysis shows that in category III (>500 delivery/month) of Allahabad zone, facilities do not have required number of Gynaecologist which is highly required for any Cat III facilities that indirectly increase the quality of maternal services.

Table 8: Training status of Clinical Human Resource (Allahabad zone)								
Allahabad Zone	# of MO Required	# of MO Available	# of MO trained in BEmonC	# of MO trained in CEmonC	# of Mo trained in FIMNCI	# of MO trained in FBNC	# of MO trained in MTP	# of MO trained in NSSK
Cat.1 (# of Facilities 12)	30	56	0	0	3	3	1	8
Cat.2 (# of Facilities 10)	16	16	0	5	0	1	1	4
Cat.3 (# of Facilities 5)	8	12	0	1	0	0	0	0

Interpretation: This table shows that the training Status for BEmonC and MTP is not appropriate among the facilities. There should be need of 2 weeks (extendable to 3) training for MO's in BEmonC and MTP (Maternal Termination of Pregnancy)

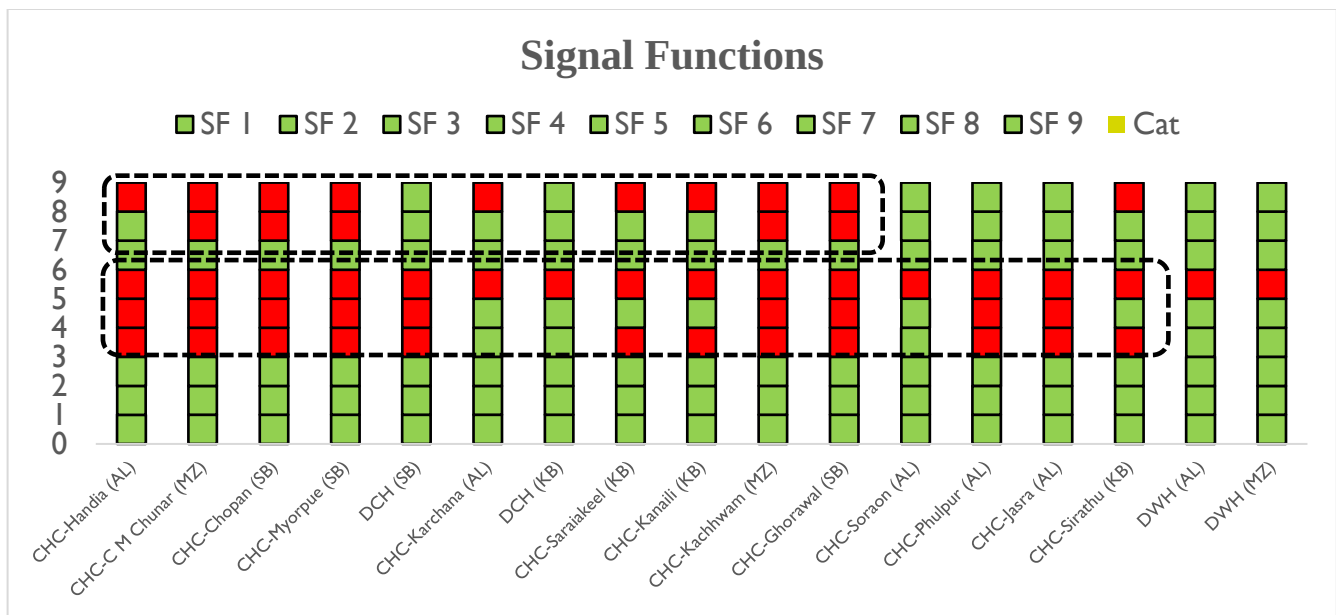


Figure 25

SF1: ADMINISTER PARENTERAL ANTIBIOTICS

SF2: ADMINISTER UTEROTONIC DRUGS

SF3: ADMINISTER PARENTERAL ANTICONVULSANTS FOR PRE-ECLAMPSIA AND ECLAMPSIA

SF4: MANUALLY REMOVE THE PLACENTA

SF5: REMOVE RETAINED PRODUCTS (e.g. manual vacuum extraction, dilation and curettage)

SF6: PERFORM ASSISTED VAGINAL DELIVERY (e.g. vacuum extraction, forceps delivery)

SF7: PERFORM BASIC NEONATAL RESUSCITATION (e.g., with bag and mask)

SF8: PERFORM SURGERY (e.g., caesarean section)

SF9: PERFORM BLOOD TRANSFUSION

Interpretation: This analysis shows that in Allahabad zone, none of the facility have all 9 signal functions in the given graph. So, the scenario of these facilities under Allahabad zone need to be strengthened in terms of signal functions those directly impact on maternal and newborn services.

e) Facility Scoring for Human resource availability with delivery load and signal functions

On the basis of above segmented analysis of 87 FRU's on the status of Clinical human resource, the analysis undergoes facility scoring for human resource availability, with the help of facility score we can easily find out the number of facilities needs to be focus to boost the human resource availability at the facility level and map the facility level service by identify the 9 signal functions.

- This facility scoring helps to identify gaps and prioritize districts, blocks, facility level intervention to address the gaps.
- Enhancing the quality level in Facilities.

This table shows the selection criteria of facilities by which we measure the facility score to priorities the districts, blocks and facilities which need to focused or intervene.

Table 9: Selection Criteria of Facilities			
Criteria	Classification/Score	Selection criteria	Benchmark
Delivery load	Cat 1 (<200 per month)-1 Cat II (200-500 per month)-3 Cat III (>500 per month)-5	Cat I, Cat II and Cat III	FRU must cater to 340 deliveries per month as per MNH tool kit, GoI
Availability of maternal and newborn services	9 signal functions Maximum Score 9	Facilities with maximum score	FRU must provide all 9 signal functions
Availability of Human resource	Cat I Maximum score-4 Cat II Maximum score-7 Cat II Maximum score-7	Facilities with maximum score	Cat 1 : MO-4, ANM/SN-4,LT 2 Cat II : OBG-5, Anesth-1, Peads-1, MO-4, SN-8, ANM-4,LT 4 Cat III :OBG-7, Anesth-1, Peads-1, MO-4, SN-10, ANM-6, LT-4

Panel specialist method is used for the distribution of scores in the table like:

Maximum score 5 for delivery load

Maximum score 9 for signal functions

Maximum score 7 for Human Resource Availability

So, the total maximum score used for facility score is **21** by which the following observations intervene

Facility Score ranges from 6 to 20 in the 87 FRU Facilities (Max. score 21)

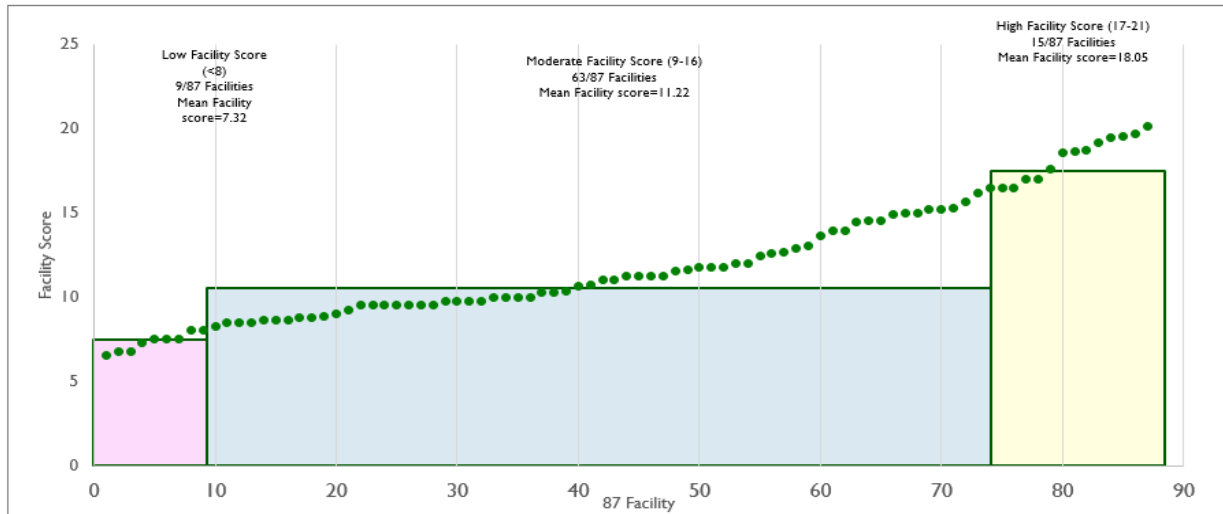


Figure 26

- Low Facility Score (<8) and Mean Facility Score 7.32
- Moderate facility Score (9-16) and Mean Facility Score 11.22
- High facility Score (17-21) and Mean Facility Score 18.05

This graph shows the distribution of facilities on the basis of three segmentation mention above, the pink bar interpret the low facility score (<8) and about 19 facilities fall under this category.

The blue bar which is in higher proportion interpret the moderate facility scoring (9-16) and about 57 facilities falling under this category

The light yellow bar interpret the high facility score and 11 facilities falling under this category.

Based on the facility score these tables show the name facilities with districts falling under the different zones.

Table 10: Low Facility Score Districts (Lucknow Zone)		
District	Block	Total Score
Faizabad	CHC-Sohawal (FZ)	6.8
Faizabad	CHC-Milkipur (FZ)	8.5
Shahjahanpur	CHC-Powayan (SJ)	8.0
Shahjahanpur	CHC-Tilhar (SJ)	8.8

Table 11: Moderate Facility Score Districts (Lucknow Zone)		
District	Block	Total Score
Barabanki	CHC-Haidergarh (BR)	11.3
Barabanki	CHC-R S Ghat (BR)	12.0
Barabanki	CHC-Dewa (BR)	13.6
Barabanki	CHC-Fatehpur (BR)	14.5
Barabanki	CHC-Tikait Nagar (BR)	9.8
Faizabad	CHC-Rudauli (FZ)	10.3
Faizabad	CHC-Bikapur (FZ)	10.0
Faizabad	CHC-Poora Bazar (FZ)	11.3
Hardoi	CHC-Pihani (HD)	11.8
Hardoi	DWH (HD)	16.4
Hardoi	CHC-Sandila (HD)	11.0
Hardoi	CHC-Bilgram (HD)	9.8
Kannauj	DCH (KJ)	15.2
Kannauj	CHC-Chhibramau (KJ)	9.0
Kheri	CHC-Palia (LK)	10.0
Kheri	CHC-Gola (LK)	14.0
Sitapur	CHC-Sidhauri (ST)	14.5
Sitapur	CHC-Laharpur (ST)	15.0
Barabanki	CHC-Haidergarh (BR)	11.3

Table 12: High Facility Score (Lucknow Zone)		
District	Block	Total Score
Barabanki	DWH (BR)	18.6
Faizabad	DWH (FZ)	17.0
Kheri	DWH (LK)	20.1
Shahjahanpur	DWH (SJ)	19.1
Sitapur	DWH (ST)	19.4

Table 13: Low Facility Score Districts (Aligarh Zone)		
District	Block	Total Score
Budaun	CHC-Ujhani (BD)	6.8
Etah	CHC-Jalesar (ET)	8.8
Farrukhabad	CHC-Kamalgank (FR)	8.6
Kanshiram Nagar	DWH (KRN)	7.5
Rampur	CHC-Shahbad (RM)	8.6

Table 14: Moderate Facility Score Districts (Aligarh Zone)		
District	Block	Total Score
Bareilly	CHC-Fareedpur (BRY)	14.0
Bareilly	CHC-Baheri (BRY)	9.5
Bareilly	CHC-Nawabganj (BRY)	10.6
Budaun	CHC-Bisauli (BD)	9.5
Budaun	DWH (BD)	15.3
Etah	DWH (ET)	15.0
Farrukhabad	DWH (FR)	15.7
Farrukhabad	CHC-Kaimganj (FR)	10.0
Kanshiram Nagar	CHC-Kasganj (KRN)	9.5
Pilibhit	DWH (PB)	16.2
Pilibhit	CHC-Puranpur (PB)	12.6
Rampur	CHC-Milak (RM)	10.4
Pilibhit	CHC-Bisalpur (PB)	11.8

Table 15: High Facility Score (Aligarh Zone)		
District	Block	Total Score
Bareilly	DWH (BRY)	19.7
Rampur	DWH (RM)	17.0

Table 16: Low Facility Score Districts (Gorakhpur Zone)

District	Block	Total Score
Bahraich	CHC Mihipurwa (BH)	7.5
Balrampur	CHC-Pachperwa (BL)	8.9
Mahrajanj	CHC-Nichlaul (MJ)	6.5
Siddharthnagar	CHC-Uska Bazar (SJ)	7.3
Shrawasti	CHC-Sirsiya (SW)	8.6

Table 17: Moderate Facility Score Districts (Gorakhpur Zone)

District	Block	Total Score
Bahraich	CHC-Kaiseganj (BH)	12.5
Bahraich	CHC-Nanpara (BH)	12.6
Balrampur	DWH (BL)	16.5
Balrampur	DCH (BL)	10.3
Balrampur	CHC-Tulsipur (BL)	9.5
Gonda	CHC-Colonelganj (GN)	11.0
Mahrajanj	DCH (MJ)	16.5
Mahrajanj	CHC-Partawal (MJ)	14.5
Sant Kabir Nagar	CHC-Khalilabad (SKN)	12.0
Sant Kabir Nagar	CHC-Haisar Bazar (SKN)	10.8
Sant Kabir Nagar	CHC-Mehdawal (SKN)	11.5
Sant Kabir Nagar	DH (SKN)	13.0
Shrawasti	CHC-Ikauna (SW)	9.5
Shrawasti	DH (SW)	14.9
Siddharthnagar	DCH (SN)	15.2
Siddharthnagar	CHC-Mithwal (SN)	9.5

Table 18: High Facility Score (Gorakhpur Zone)

District	Block	Total Score
Bahraich	DWH (BH)	18.5
Gonda	DWH (GN)	19.5

Table 19: Low Facility Score Districts (Allahabad Zone)

District	Block	Total Score
Mirzapur	CHC-C M Chunar (MZ)	8.5
Mirzapur	CHC-Kachhwam (MZ)	7.5
Sonbhadra	CHC-Chopan (SB)	8.3
Sonbhadra	CHC-Myorpue (SB)	8.0
Sonbhadra	CHC-Ghorawal (SB)	8.5

Table 20: Moderate Facility Score Districts (Allahabad Zone)

District	Block	Total Score
Allahabad	CHC-Handia (AL)	9.3
Allahabad	CHC-Karchana (AL)	9.5
Allahabad	CHC-Soraon (AL)	12.9
Allahabad	CHC-Phulpur (AL)	11.6
Allahabad	CHC-Jasra (AL)	11.3
Kaushambi	DCH (KB)	11.3
Kaushambi	CHC-Saraiakeel (KB)	9.8
Kaushambi	CHC-Sirathu (KB)	11.8
Kaushambi	CHC-Kanaili (KB)	9.8
Sonbhadra	DCH (SB)	10.0

Table 21: High Facility Score (Allahabad Zone)

District	Block	Total Score
Allahabad	DWH (AL)	17.6
Mirzapur	DWH (MZ)	18.7

Table 22: Overall Scoring

Facility Category	# of facilities
Low scoring facility	19
Moderate scoring facility	57
High scoring facility	11

Chapter 4

Results and Findings

14. Results and Findings

For quality service delivery with dignity and privacy to clients, an adequate number of competent HR is required for providing best possible care during pregnancy, delivery and postpartum period.

1. On the basis of analysis, overall Clinical HR status is fall under three criteria:

First, Low scoring facility with less than 8 score in which the human resource status is not appropriate as per the requirement at the facilities and around 19 facilities fall under this category.

Second, Moderate scoring Facility with (9-16) score in which the human resource status is somehow appropriate as per the requirement at the facilities and around 57 Facilities fall under this category.

Third, High Scoring Facility with (17-21) Score in which the human resource status is good as per the requirement at the facilities and around 11 Facilities fall under this category.

2. Continuous updating of skills and knowledge of staff is mandatory for ensuring provision of quality services. As training is the most important part to pick the right path towards the professionalism so, overall training status for Clinical Human Resource showing a huge gaps in between the availability of staff and training received.
3. 9 signal functions are the key interventions for treating the vast majority of maternal complications and for resuscitation of the newborn after birth and these functions serve as indicators of the level of care being provided. So, the gaps find out that only 11 Facilities (10 DH and 1 CHC-FRU) of 87 facilities have all 9 signal function and other 76 facilities majorly lacking in the area mainly three signal functions:
 - Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)
 - Perform surgery (e.g., caesarean section)
 - Perform blood transfusion

Chapter 5

Conclusion

15. Conclusion

- The availability of Staff Nurses & ANM in Cat II & III Facilities is inadequate compared to the Cat III Facilities. So, need to increase the availability of SN and ANM in Cat II & III atleast up to the required number.
- The availability of Gynaecologist, Paediatrician & Anaesthetics in Cat II Facilities is inadequate compared to the Cat III Facilities.
- There is need to improve the training status of MO's specifically in BEmonC & CEmonC training.
- Majority of Facilities do not have all signal functions. Specifically, focus more on C-section and Blood Transfusion to increase the maternal health services.
- Increase the quality of FRU's and strengthening the maternal and newborn services in the 25 high priority districts of Uttar Pradesh as per Maternal and Newborn Health tool Kit by Government of India (GoI).

The Establishment of First Referral Units (FRUs) and 24x7 Primary Health Centres (PHCs), Special Newborn Care Units (SNCUs), and New Born Care Corners (NBCCs) have enhanced access to critical maternal, newborn and child health services in health institutions.

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Annexure
MAPPING OF HUMAN RESOURCE AVAILABILITY TOOL
FRU- DWH/DCH/CHC

A: IDENTIFICATION									
District _____									
Block _____									
Name of Facility _____									
Type of Facility _____									
Facility Code _____									
Number of Visit Made _____									
Signature of The Interviewer _____									
Name of In-Charge Medical Officer _____									
	VISIT 1			VISIT 2			VISIT 3		
DATE	DAY	MONTH	YEAR	DAY	MONTH	YEAR	DAY	MONTH	YEAR
	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐

S.NO.	NAME	MOBILE NUMBER	DESIGNATION	PLACE OF POSTING	TYPE OF SERVICE	YEARS OF EXPERIENCE AS COMPLETE D ON 31 ST DECEMBER 2016	TRAINING
			MO MBBS=1 MO AYUSH=2 Paediatrician=3 Gynaecologist=4 Anasthetist=5 Surgeon = 6 Matron/LHV=7 Staff Nurse= 8 ANM = 9	OPD=1 ANC Ward=2 Labor Room=3 PNC Ward =4 OT = 5 SNCU/NBSU/NBC=6 Blood Storage Unit=7	Permanent =1 Attachment =2 Contractual =3 Other=4		LSAS=1 CEMONC=2 SBA=3 FIMNCI=4 BSU=5 BEMONC=7 MTP=8 NSSK=9 FBNC=10