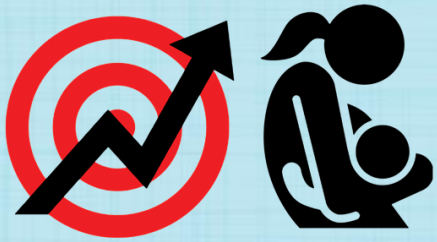


LAQSHYA
लक्ष्य

Challenges in Implementing LaQshya Guidelines in Government Health Facilities in Tamil Nadu.

A Research Project Report for

The Operational Research Program

By

Tamil Nadu Health System Reform Program

and

Indian Institute of Technology Madras (Nodal agency)

Titled

Challenges in implementing LaQshya guidelines in Government Health Facilities in Tamil Nadu
A Multicentric Mixed Method Study

Submitted By

DR. SATHYA J. MD, DCH, MPH

Team Lead

Team Coordinators

DR.T.K. SHANTHI GUNASINGH MD, DGO **DR. PRIYA VASANTHAKUMARI R. J MD (OG)**

Gandhigram Institute of Rural Health,
Gandhigram, Dindigul.

Table of Contents:

Acronyms and Abbreviations:

RMC- Respectful maternity care

OSCE - Objective structured clinical examination

KA - Knowledge assessment

KMC - Kangaroo mother care

HCP - Health care practitioner

LR - Labor room

OT - Operation theatre

CHC -Community Health Centre

DH -District Hospital

SDH - Subdistrict hospital

MMR- Maternal mortality ratio

WHO - World health organisation

SW- Sanitary workers

Acknowledgments:

We sincerely extend our heartfelt gratitude to **Dr. S. Vineeth IAS**, Project Director, TNHSRP for his unwavering support and invaluable guidance throughout this multi-centric Operational Research Project.

We also express our deep appreciation to former Project Director of TNHSP, **Dr. A. Arun Thamburaj IAS** for entrusting us with this opportunity to undertake the research and for his invaluable guidance during its inception.

We would like to thank **Dr. J. Sangumani MD**, the Director of Medical Education and Research for granting the permission to collect data from the government medical college hospitals. Also, we thank **Dr. J. Rajamoorthy MBBS., DCH**, Director of Medical & Rural Health Services for permitting us to collect data from government district and sub-district hospitals.

We express our profound gratitude to **Dr. T.S. Selvavinayagam MD., DNB., DPH.,** Director of Public Health for granting permission to collect data from the primary health centres.

This significant undertaking would not have been possible without the unwavering support and guidance of the entire ORP team. I sincerely appreciate our expert advisor, **Dr. S. Shobha**, for her exceptional scientific insights throughout the project, **Prof. V.R. Muraleedharan**, IIT Madras, for his invaluable guidance and encouragement at every stage and we also thank the project consultant **M. Rajesh**, IIT Madras and program officer **Dr. Prakyatha** for their constant support.

We would like to record our sincere thanks for their kind cooperation during the data collection process:

We express gratitude to the **Deans** of Government Ariyalur Medical College, Dindigul Medical College, Kallakurichi Medical College, Ramanathapuram Medical College, Trichy Medical College, Tirunelveli Medical College, Tiruvarur Medical College, Tiruppur Medical College, and Virudhunagar Medical College.

We thank the **Joint Directors of Health Services** of Ariyalur, Dindigul, Kallakurichi, Mayiladuthurai, Ramanathapuram, Trichy, Tiruvarur, Tirupathur, Tenkasi and Virudhunagar. Also, we thank the **Chief Medical Officers** of Dindigul, Mayiladuthurai, Ramanathapuram, Trichy, Tirunelveli, Tirupathur, Tiruvarur, Tiruppur, Tenkasi and Virudhunagar Sub-district hospitals.

We would like to thank the former Director of IOG, **Dr. T.K. Shanthi Gunasingh MD,** for the enormous support in the project.

We thank **Dr. Anuradha Pichumani MBBS., DGO., MBA.**, for her extended support in developing the respectful maternity care (RMC) tool and guiding us to learn and use context assessment tool (CAT).

We thank the **LaQshya national and state assessors who participated in the study** for their support in critically appraising the labor ward and OT performance.

We thank the **coGuide team, Bangalore,** for the technical support, data analysis and report preparation. The coGuide **REAP tool** has been essential for efficient and reliable data collection, making it highly effective for our data collection efforts.

We express our gratitude to the **Honeybee team** for analysing the qualitative data.

We are honoured to extend our heartfelt gratitude to our current Director, **Dr. Vanaja**, former Director, **Dr. Seetha Lakshmi**, and the esteemed **faculty of the health and family welfare training department** for their invaluable contributions in leading this project from its inception to completion.

Finally, we extend our heartfelt appreciation to all the participants such as mothers, leaders, doctors, staff nurses, pharmacists, and sanitary team for their unwavering support and valuable contributions to this study.

Executive summary:

Background:

Tamil Nadu has made significant strides in reducing maternal and neonatal mortality through its strong public health commitment, infrastructure investments, and strategic interventions. While India's maternal mortality ratio (MMR) and neonatal mortality rate (NMR) have shown steady declines, Tamil Nadu has outpaced national trends through innovative policies such as the upgrading of healthcare facilities, improved referral mechanisms, and the implementation of digital tracking systems like PICME. However, the COVID-19 pandemic led to a temporary rise in MMR, highlighting the need for sustained quality improvements in maternal and newborn care. Recognizing that institutional deliveries alone are not sufficient to reduce mortality, the state has adopted the LaQshya initiative, a national quality improvement program focused on enhancing labor room and maternity operating theatre services. LaQshya emphasizes skilled human resources, respectful maternity care, and adherence to standardized clinical guidelines to ensure high-quality maternal and newborn care. Despite the success of LaQshya, there is a need to evaluate the sustainability of its interventions, the competency of healthcare providers, and the consistency of quality care beyond certification. This study aims to assess these aspects using a mixed-methods approach, providing insights into the facilitators and barriers to maintaining LaQshya standards in Tamil Nadu.

Methodology:

This study employs a mixed-methods design to assess maternal healthcare quality in Tamil Nadu, combining qualitative and quantitative approaches. The qualitative component includes in-depth interviews (IDIs) and focus group discussions (FGDs) with key stakeholders such as program planners, care providers, and beneficiaries (mothers). The quantitative component is an observational study evaluating maternal care services.

The study is conducted across ten districts of Tamil Nadu, selected based on maternal mortality rates (2022–2023). Eight high-MMR districts and two aspirational districts were chosen to identify gaps and recommend improvements. Tamil Nadu has made significant progress in reducing maternal mortality, but certain districts lag. This study aims to generate evidence for course

correction and priority actions, particularly in relation to the LaQshya initiative, which focuses on quality maternal and newborn care.

Within each district, one medical college and at least one district or subdistrict hospital were included. A total of 27 facilities were visited to identify challenges, while 35 facilities were assessed for Respectful Maternity Care (RMC). Of these, seven were in the process of LaQshya certification, while the rest had already been certified. The findings will inform strategies to improve maternal healthcare and further reduce maternal mortality in Tamil Nadu.

Key findings:

The study revealed significant strengths and gaps in maternal and newborn care across Tamil Nadu's high-MMR and aspirational districts. All three facilities have achieved scores exceeding 80% in both LR and OT assessments, reflecting their commitment to maintaining high standards of care at the time of certification, but at the time of study, facilities scored low, especially in terms of quality management. The thematic areas of challenges for all facilities were - Data for quality improvement, Motivation and team culture, and Knowledge and skill gap. District/Sub-district hospitals faced challenges in dedicated resources and staff availability. Respectful maternity care showed positive outcomes in dignity and respect (96.1%) and financial transparency (94.8%), indicating strong adherence to ethical healthcare principles. However, there were notable deficiencies in communication (59.7%), privacy (79% reported lack of confidentiality), and supportive care, where more than half of the women (56.1%) were denied a birth companion. While healthcare providers demonstrated strong knowledge (average score of 15.5/18), their clinical practice in maternal (54%) and newborn (49.9%) care fell short of the required 80% standard, with no district hospital providers meeting this benchmark. Employee satisfaction was generally high, with 87.9% of healthcare workers reporting workplace safety and job fulfilment, but concerns over promotion opportunities (40.4%), inadequate rewards (43.4%), and high job stress (50.5%) were evident. Case sheet audits exposed critical gaps in documentation, with partograph usage far below the mandated 90% and poor adherence to oxytocin audit requirements (24-32%). While BP monitoring before delivery was well-documented (79-85%), post-delivery records declined slightly (75-85%).

Conclusion:

The study highlights adherence of LaQshya-certified facilities on RMC, especially in terms of dignity and respect in maternal care. Facilities have scored better at the time of their certification in LR and OT assessment compared to the study period. Health care practitioners across these facilities were highly satisfied with their jobs and possess satisfactory knowledge scores, but their practical skills in maternal and newborn care remain below the required competency level. Our study findings highlight that we have made significant progress in terms of quality improvement in various aspects. However, strengthening of several areas like appropriate data usage, Skills enhancement of healthcare providers, retaining of trained staffs for longer duration, rationalization of manpower within and between facilities, improving team culture, can help us to sustain the quality maternal and newborn care. There is a need to view LaQshya as not a program, but the provision of safe and routine maternal and Newborn health services with quality.

Chapter - 1

Background

Background:

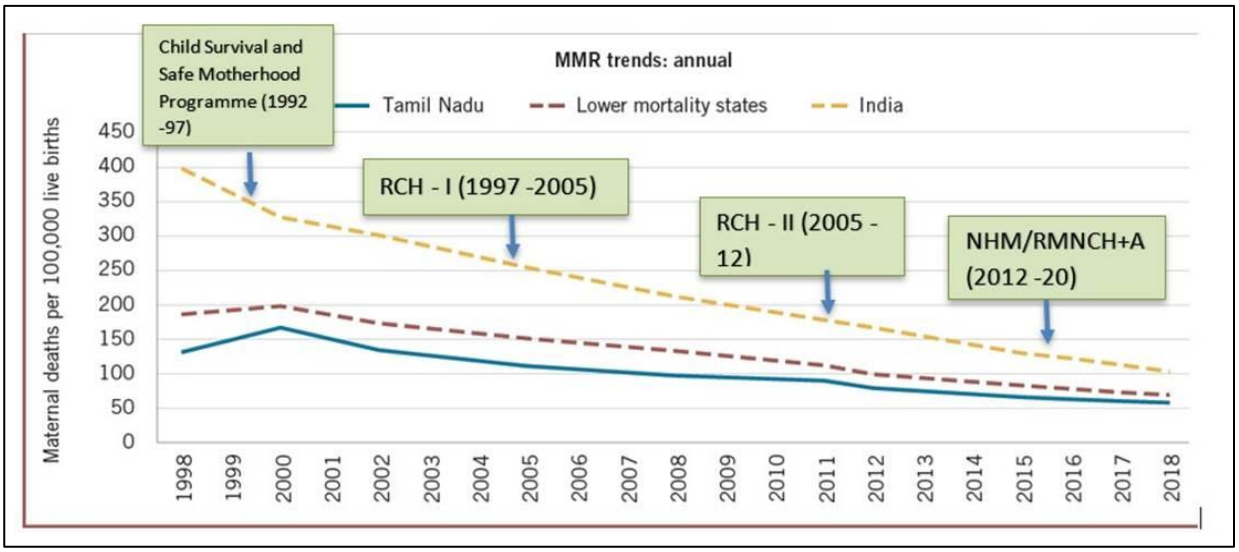
1.1 Introduction:

Maternal and Child Health in India and Tamil Nadu:

Maternal mortality and neonatal mortality are major global health issues. Maternal mortality refers to the death of a woman during pregnancy or within 42 days of its end due to causes related to or aggravated by the pregnancy, excluding accidental or unrelated incidents (WHO,1999). India has contributed greatly to global reductions in maternal and neonatal deaths. According to the sample registration system (SRS), India's national maternal mortality ratio (MMR) dropped by two-thirds, and the neonatal mortality rate (NMR) halved since 2000 (1,2). As per the sample registration system released by RGI, the MMR of India reduced from 103 per 100,000 live births in 2017-19 to 97 per 100,000 live births in 2018-20, with a declining rate of 6.36 % (3). The neonatal mortality rate reduced from 30 per 1000 live births in 2019 to 28 in 2020, with an annual decline rate of 6.7% (2). Despite the decline in IMR over the last decades, one in every 36 infants die within the first year of their life at the National level (irrespective of rural and urban), and it is still far from the United Nations' Sustainable Development Goal (SDG) 3.1 of lowering maternal mortality to fewer than 70 deaths per 100,000 live births by 2030 (4)

Tamil Nadu as a state has been showing a steady state of decline in maternal mortality ratio over the years, the rate of decline is also faster than India and other low mortality states. According to the sample registration system, it has declined from 66 in 2016 to 60 in 2018 (5). The infant mortality rate also shows a steady decline, from 17 per 1000 live births in 2016 to 13 in 2020 (6). However, the Health Management Information system of the state has shown that post-pandemic the MMR increased to 90 per lakh live births in 2021. Like any other healthcare service, maternal and newborn services were no exception to the devastating impact of COVID-19. Such unprecedented threats highlight the importance of sustained quality maternal and newborn health services (7).

Figure 1: Trend of MMR and NMR in India and Tamil Nadu:



*Low-mortality states include: Andhra Pradesh, Gujarat, Haryana, Karnataka, Kerala, Maharashtra, Punjab, **Tamil Nadu**, Telangana, and West Bengal

Tamil Nadu's efforts in MMR and NMR reduction:

Tamil Nadu stands out in India for its extensive government health infrastructure, emphasizing quality over expansion. The state has improved investments in the upgrading of both primary and secondary health care facilities, it has also prioritized improving services by deploying trained nurses and medical officers in PHCs to provide high-quality ANC and round-the-clock BEmONC care. A significant increase in CHCs enhanced the availability of CEmONC-equipped delivery centres. Tamil Nadu exceeds both national and lower mortality state averages in healthcare infrastructure, concentrating on upgrading existing facilities while expanding CHCs (rising from 2 to 10 per million people between 1997 and 2012). The early implementation of a 24/7 PHC policy, better ambulance access, and PHC upgrades with additional medical staff further strengthened BEmONC services and referrals. Additionally, the state was a pioneer in setting clinical care guidelines, advancing CEmONC quality and accessibility.

Drivers for declining MMR in Tamil Nadu:

- Strong Public health commitment from the department of public health, which makes up the majority of human resources and health infrastructure of the state.
- The upgradation of all Block PHC and some additional PHC's to BEmONC centres and construction of CEmONC centres, ensuring at least one CEmONC centre per district, was a key driver for declining MMR.
- Increase in tertiary care facilities over the years, with every district having a well-equipped medical college Hospital.
- Strong and timely, no cost referral mechanism utilizing 108 ambulance and Janani Shishu Suraksha Karyakram (JSSK) services.
- The cadre of village health nurse at community level who works under regular direct government pay-scale is exclusively designated for maternal and child health care.
- The welfare state model in Tamil Nadu offers Maternal and child health services through a government-owned mechanism. The extreme political commitment and ownership by the government for Maternal and child health has played a key role in declining mortality.
- PICME (Pregnancy Infant Cohort Monitoring Evaluation) system is a state-owned landmark strategy for tracking every pregnancy. Every mother who gives birth in Tamil Nadu are captured in a digital database and are given unique Identifying number this has helped in efficient tracking of mothers.
- Maternal death surveillance and review system in Tamil Nadu has played a key role in identifying instances of near miss and reorienting strategies to improve maternal and child health services.

- The Tamil Nadu Dr. Muthulakshmi Reddy scheme is a cash incentive assistant (recently merged with Pradhan Mantri Matru Vandana Yojana (PMMVY) for pregnant women, which also includes nutrition and safe delivery kit packages. Mothers receive the total amount of Rs.18000 divided into instalments linked to each specific service availed during pregnancy till the vaccination of the baby at 9 months. This has motivated as well as ensured that the mothers receive quality antenatal care (7).

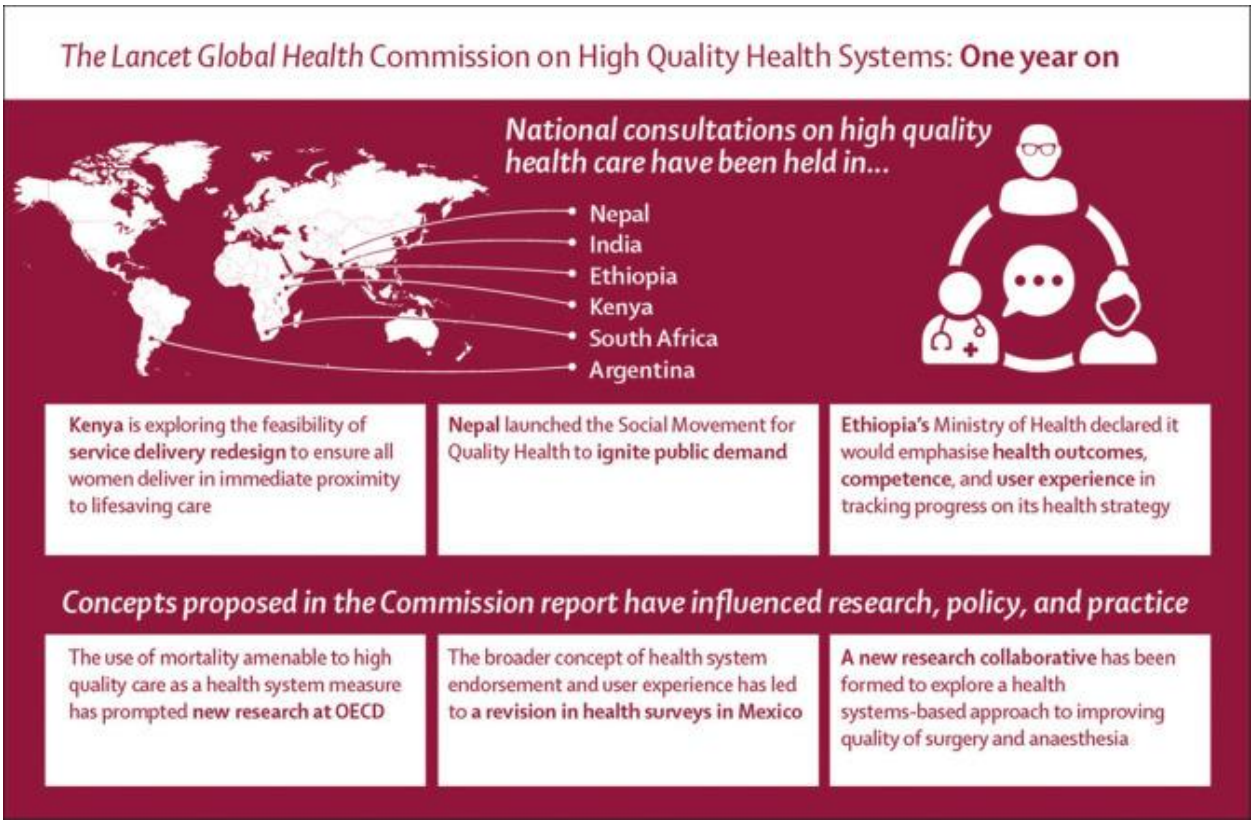
Quality in Maternal and Child Health:

Annually, approximately 5.7 to 8.4 million individuals in low- and middle-income countries lose their lives due to inadequate healthcare quality, representing up to 15% of total deaths in these regions. The economic impact is significant, with lost productivity from poor healthcare estimated at around $1.4 to $1.6 trillion annually. The period around childbirth is the most important critical window of opportunity to save a maximum number of maternal and newborn lives. Research has shown that ensuring access to only essential services is not adequate to decline further maternal and neonatal mortality (8).

Though significant progress has been made in the field of reducing maternal and neonatal mortality reduction, the majority of it is achieved by achieving institutional delivery, and skilled birth attendance. With the increase in institutional delivery, the quality of maternal and newborn care especially in the intrapartum period is absolutely essential as poor quality of care can contribute to increase in mortality and morbidity. States like Tamil Nadu which has made huge progress in maternal health need to innovate and improve the existing strategy focussing on quality of care.

According to the Lancet Commission on High-Quality Health Systems (2018), improving healthcare quality alone could prevent nearly half of all maternal and newborn deaths. Ensuring high-quality care requires deliberate effort, as it does not happen automatically. Challenges in delivering quality healthcare exist at every level, from national and district systems to individual health facilities. Achieving optimal health system performance and better health outcomes depends on the collective commitment of all stakeholders (9).

Figure: The Lancet Global Health Commission on High Quality Health Systems:

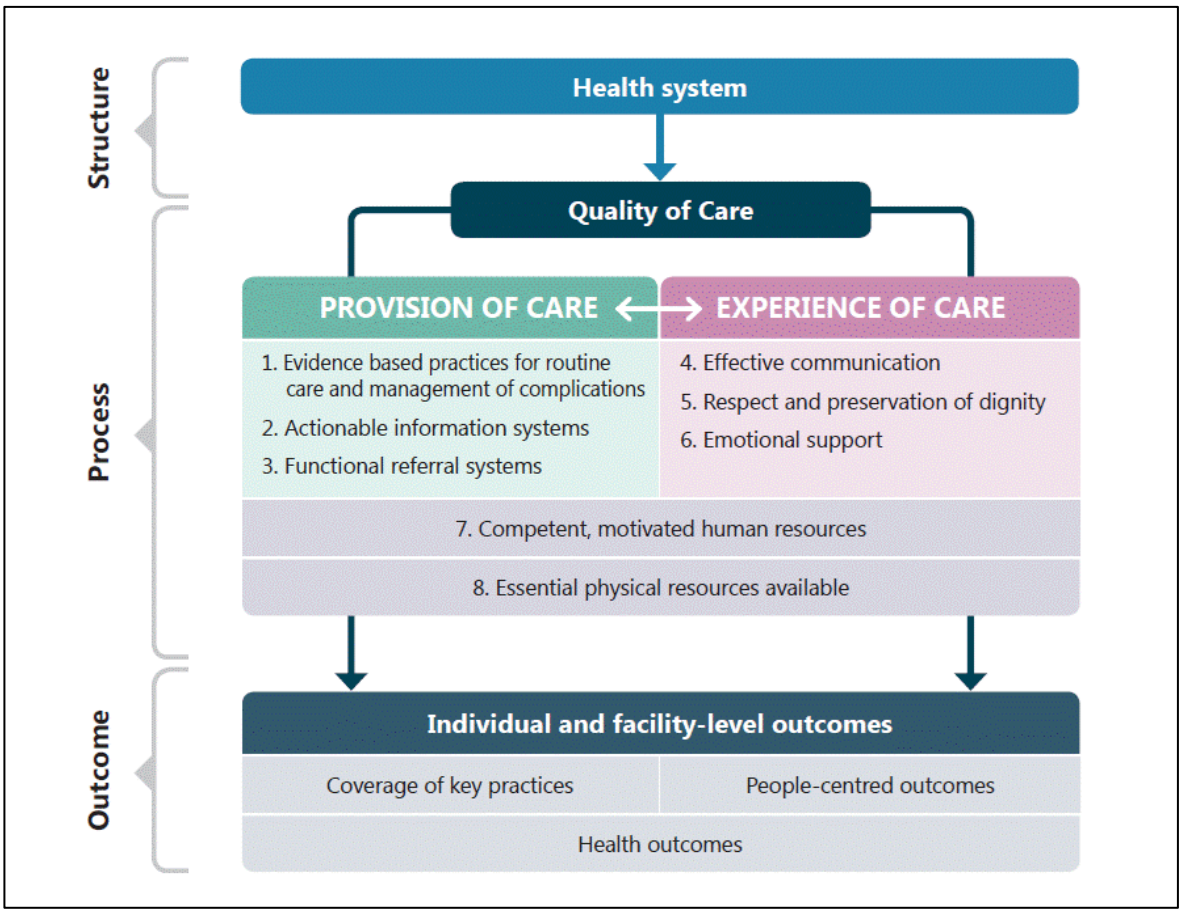


World Health Organization (WHO) has envisioned that all pregnant women receive the highest possible standards of care during pregnancy childbirth and postnatal period. As a part of the quality initiatives, WHO has given a set of standards for improving quality of maternal and newborn care in health facilities. This includes 8 standards and 31 quality statements.

Table 1: WHO standards for quality in maternal and newborn care at facilities (10):

Standards for Quality in Maternal and newborn care	
Standard 1	All women and newborns receive evidence-based care and management during labor, childbirth, and the postnatal period
Standard 2	The health management information system supports data-driven actions to enhance care for women
Standard 3	Women and newborns with conditions beyond available resources receive timely and appropriate referrals.
Standard 4	Ensure effective Communication with women and families meeting their needs and preferences.
Standard 5	Both Women and newborn receive care that is preserving their respect and dignity
Standard 6	Ensuring necessary emotional support for every woman and her family that is keeping up with her needs and strengthens her capabilities
Standard 7	A competent empathetic motivated staff is available to every woman and newborn for necessary care and management
Standard 8	The health facility provides a suitable environment with essential utilities, medicines, and equipment for maternal and newborn care.

Figure 2: WHO Framework for Quality of Maternal and newborn care:



Quality in India and Labor room Quality improvement initiative (LaQshya):

The National health mission envisages to ensure that everyone has access to fair, affordable, and **high-quality health care services** that are responsible and meet people's needs. The quality improvement initiatives are taking centre stage in health system reforms across the country. The first Quality assurance mechanism introduced in the country was through National Quality Assurance Strategy (NQAS), which included a set of standards to ensure quality health care services at the facility. The National Quality Assurance Standards (NQAS) have been meticulously crafted to align with the unique needs of public health facilities while also incorporating global best practices. These standards are currently applicable to a range of healthcare settings, including District Hospitals, Community Health Centres (CHCs), Primary Health Centres (PHCs), and Urban Primary Health Centres. The primary objective of these standards is to empower healthcare

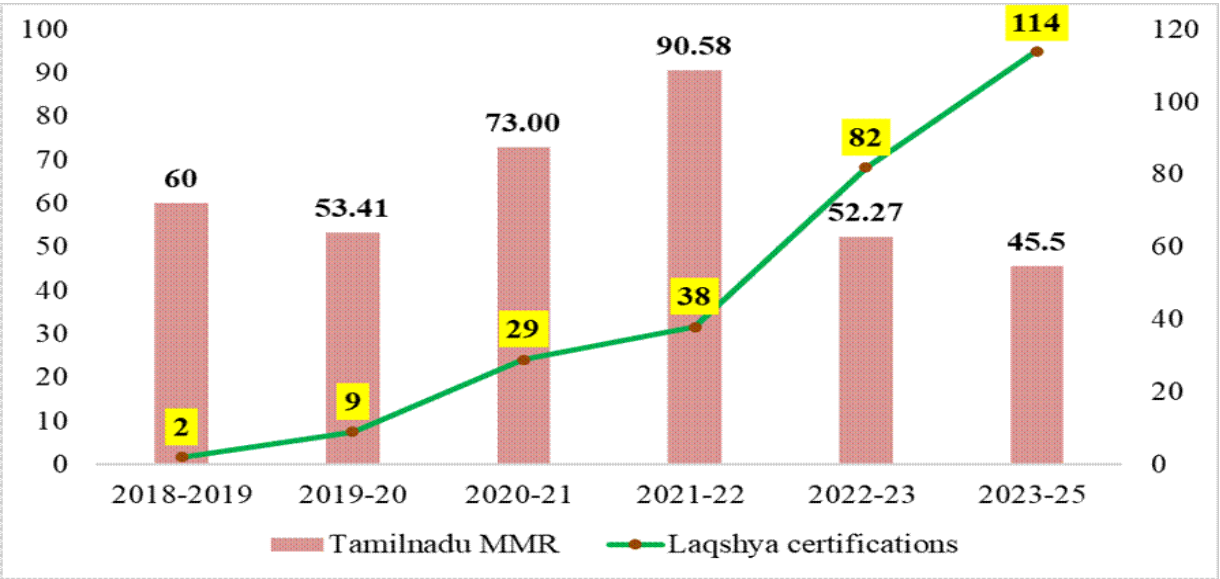
providers to evaluate and enhance the quality of their services using predefined benchmarks and to prepare their facilities for certification. The NQAS are organized into eight key domains: Service Delivery, Patient Rights, Resources, Support Services, Clinical Care, Infection Prevention, Quality Governance, and Outcomes.

Though NQAS certification was to ensure standards of facilities, the extensive and elaborate nature may delay its achievement by a facility, there was an urgent priority to ensure quality of maternal and child health care. Hence Labor room Quality improvement initiative (LaQshya) was introduced to ensure quality in labor rooms and operation theatre.

Maternal Mortality in Tamil Nadu post pandemic and LaQshya:

Pandemic disproportionately affected the maternal and newborn health care services, Tamil Nadu as a state was no exception to this impact. The trends in MMR post pandemic showed a sudden increase, from 53 in 2019 it increased to 73 in 2020 to 91 in 2021. However, several catch up interventions taken by the government swiftly played a key role in bringing back the MMR to declining trend. The focus on quality improvement of maternal and newborn care services at health facilities through LaQshya has played an important role in this.

Fig 3: Comparison of Maternal mortality rate based on LaQshya certification status



Source: HMIS

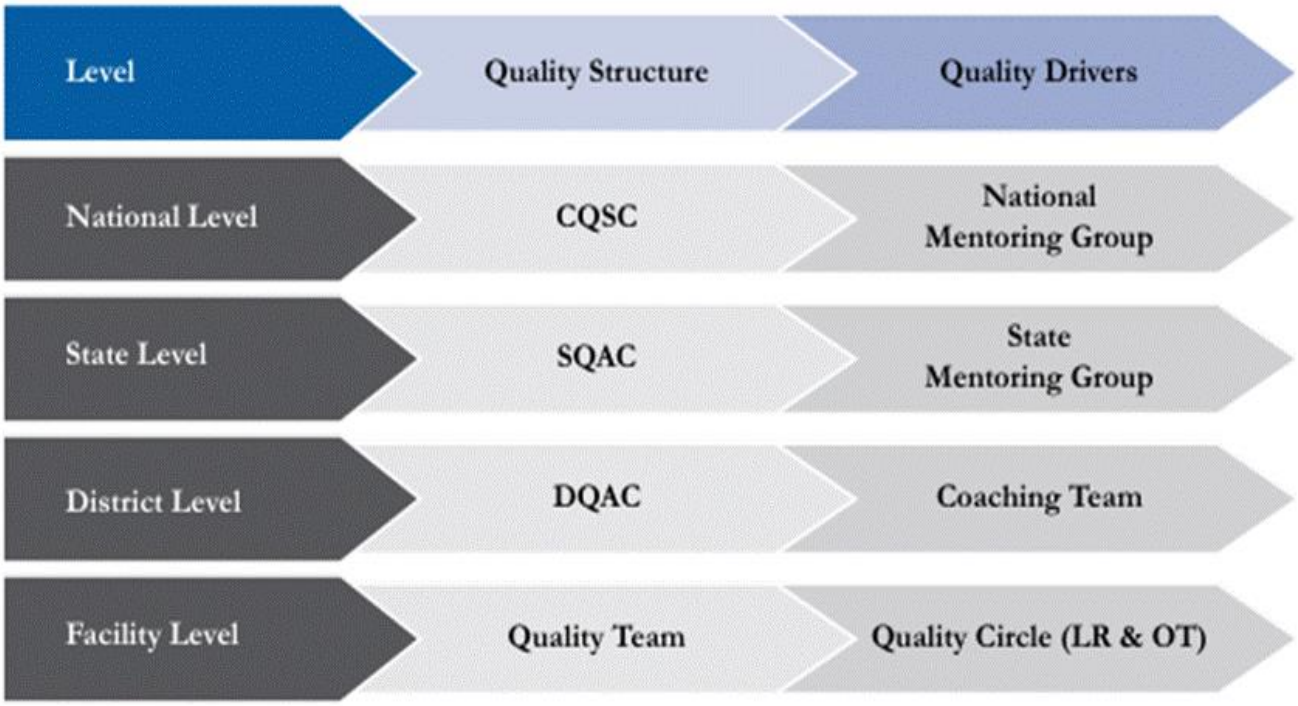
The LaQshya initiative aims to enhance the quality of care during childbirth and the immediate postnatal period, focusing on labor rooms and maternity operating theatres. By adhering to these guidelines, healthcare providers are encouraged to deliver compassionate and flawless care to pregnant women and newborns. The LaQshya-certified facilities are also incentivised to encourage and sustain their quality. States are expected to expedite the modernization of traditional labor rooms in accordance with the "Guidelines for Standardisation of Labor Rooms at Delivery Points" and to establish High Dependency Units (HDUs) as per the "Guidelines for Obstetric HDUs and ICUs."

Medical College Hospitals, which manage a significant number of maternal and neonatal cases while also providing education and training for medical professionals, will be key participants in this initiative. Implementation will extend to all Government Medical Colleges, District Hospitals, and high-volume Community Health Centres and Sub-District Hospitals.

1.2 The goal of LaQshya:

Reduce avoidable deaths and illnesses among mothers and newborns linked to childbirth care in delivery areas and maternity operating theatres, and promote respectful maternity care (RMC).

Figure 4: Institutional Arrangement under NQAP & LaQshya:



Institutional structure for LaQshya:

There are mentoring groups and coaching teams at national, state and district levels and quality circles at facility level. They undertake periodic site visits, assess the gaps and offer them support. They undertake periodic skill-based trainings and send reports to their higher level. These mechanisms are used for tracking and monitoring the progress towards LaQshya certifications and hence improve in quality of maternal and child health care.

Key Interventions in LaQshya:

1. **Optimal Human Resources:** Ensure adequate and skilled staff deployment based on caseload and norms, with skill upgradation as needed
2. **Skill Assessment:** Conduct OSCE testing for labor room and maternity OT staff to deliver high-quality obstetric and newborn care.
3. **Skill Enhancement:** Improve staff proficiency in managing complications through skill-lab training, simulations, and drills, and minimize staff reassignment from maternity duties.
4. **Respectful Maternity Care:** Sensitize care providers to deliver respectful maternity care and monitor staff conduct closely.
5. **Natural Birthing Environment**: Create a conducive environment for natural childbirth.
6. **Clinical Guidelines**: Implement clinical guidelines, pathways, referral protocols, and checklists for safe birth and surgery.
7. **24/7 Services**: Ensure round-the-clock availability of blood transfusion, diagnostics, drugs, and consumables.
8. **Triage and Newborn Care:** Provide a triage area and functional newborn care area.
9. **Case Audits:** Conduct systematic audits of maternal/neonatal deaths, stillbirths, and near misses, with mentor teams and through various learning mechanisms.
10. **C-Section Audit**: Implement audits for C-sections to ensure they are performed judiciously.
11. **Beneficiary Feedback:** Capture and address beneficiary feedback through various mechanisms for continuous improvement.
12. **Essential Support Services:** Ensure availability of essential services like 24x7 water, electricity, housekeeping, security, and equipment maintenance.

13. **Digital Technology:** Use digital tools for record-keeping, monitoring, and managing care, including E-partograph and Computer on Wheel.
14. **IEC and Training**: Utilize aggressive IEC, user-friendly materials, and IT tools. Promote branding of high-performing facilities.
15. **Quality Tools**: Employ quality tools like PDCA, Root Cause Analysis, and Run Charts for gap closure and target achievement.
16. **Rapid Improvement:** Implement rapid improvement events for quick enhancements. Conduct 6 cycles of quality improvements in important thematic areas each lasting for two months.

LaQshya Certification:

The above key interventions are expected to be taken up by the facilities to achieve the LaQshya standards. These will be done through various phases with the help of institutional arrangements. The standards will then be assessed using the LaQshya Checklist (Annexure). There are 8 areas of concerns (Given in table 2), each area of concern will be given a score out of 100, this will be calculated based on a checklist of items under each area of concern. Addition of score for each checklist item will give the score for area of concern out of 100. Total score will be calculated by average of scores by each area of concern. Separate scores will be given for Labor room and Operation theatre (11)

Figure 5: Phase of activities in the facility:

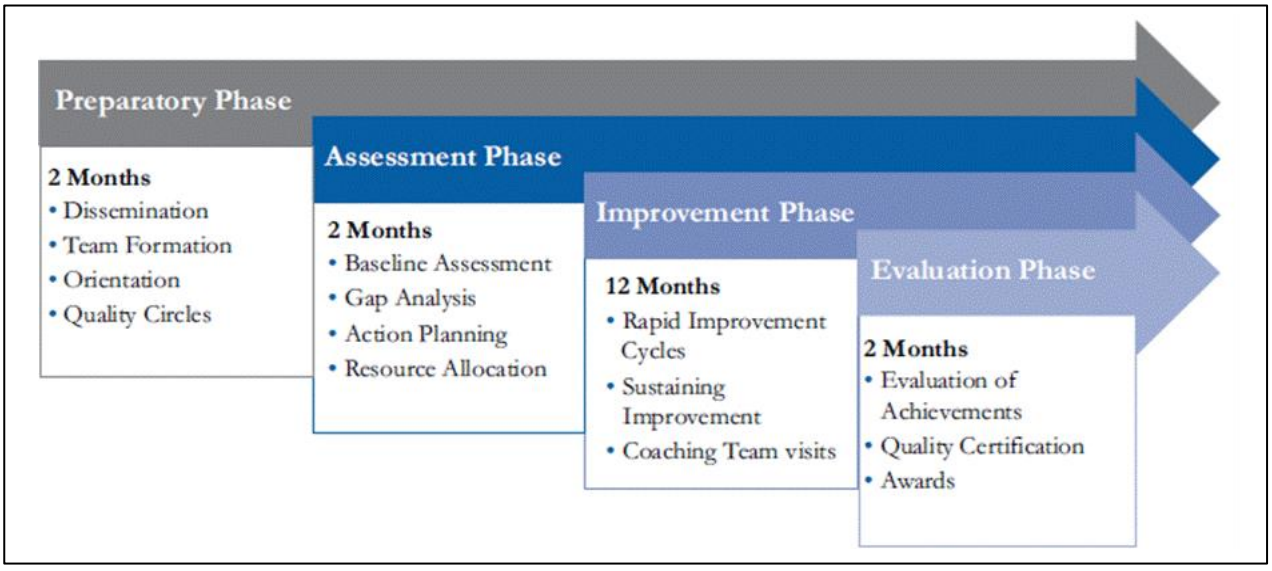


Table 2: Conditionality for achieving LaQshya status by the facility:

Area of concern	Criterion	Score	Certification
1. Service provision 2. Patient Rights 3. Inputs 4. Support Services 5. Clinical Services 6. Infection Control 7. Quality Management 8. Outcome	Criterion I	Score ≥ 70% in all areas of concern	**Certified**
	Criterion II	Score in Each Area of Concern ≥ 70%	**Any two criteria satisfied in II to V**
	Criterion III	Score in three Core Standards ≥ 70%	
	Criterion IV	Score in each Applicable Quality Standard ≥ 60%	
	Criterion V	Satisfaction ≥ 80%	

1.3 Need for the study:

Tamil Nadu as detailed before has been steadily progressing in getting several facilities LaQshya certified. As of the most recent report (January 2025) 114 facilities across Tamil Nadu have been LaQshya certified. Though several facilities are able to achieve their targets outlined in LaQshya on the day of certification, there is a need to understand the sustainability of intervention done in LaQshya for delivering quality maternal and newborn care.

1. Since the certifications and incentives under the initiative are based on the few days of assessments taken up by the national certification team, there is a need to explore whether the quality of services is consistently maintained in the routine everyday functioning of labor ward.
2. Respectful maternity care is one of the key outcomes of LaQshya, with so many facilities in Tamil Nadu certified for LaQshya there is a demand to understand the respectful maternity

care received by the mother. Existing studies from around the world shows varied results with respect to RMC

3. Several existing literatures has shown that though health care providers are available in Low- and Middle-income countries, in many instances they are unable to provide Basic emergency and newborn obstetric care due to lack of skills and competency. The skill enhancement of the healthcare providers is one of the key interventions in LaQshya. It is essential to understand this aspect as the quality of services offered is highly dependent on the skills of the providers (12,13)
4. The LaQshya initiative demands several resource intensive structure and service delivery. The process is an intensive activity by the facility, there are several facilitators and barriers experienced in ensuring this quality in routine delivery of services. There is very minimal evidence in this regard exploring the complexities and intricacies involved in sustaining LaQshya efforts in India.
5. This is the first study in south India which has used a mixed methods approach to generate evidence regarding challenges to ensure LaQshya quality standards. Use of mixed method can help us to shine light on several systemic factors which are contributing for difficulties in LaQshya implementation.
6. This study is undertaken with an aim to understand various outcomes and aspects involved in LaQshya

Aims & Objectives

The LaQshya initiative aims to achieve

- Respectful maternity care
- Improve the infrastructure
- Enhance the skills of the providers to deliver quality maternal and newborn care services.

There is a need to generate evidence on how much each of these efforts is achieved in routine practice and what are the facilitators and barriers are to ensure this. This will help us generate local as well as regional evidence and identify the root cause of system failures in discharging maternal care services. It will also through light on areas of lacunae that needs to be addressed on priority basis so that course correction can be done. In the long term, it will have a direct and intense influence on declining the maternal and neonatal mortality.

Objectives:

Aim:

To explore the challenges and barriers in implementing LaQshya standard guidelines across select government health facilities of Tamil Nadu.

Objectives:

Primary Objective:

To understand the **facilitators and barriers** in implementing LaQshya across select government health facilities from the health care providers, sanitary workers, patients, and family members' perspectives.

Secondary Objectives:

1. To assess the existing infrastructure and staffing gaps according to the delivery load in each health facility.
2. To understand the current LaQshya status and infrastructure
3. To determine the LaQshya-related training needs and job satisfaction of the healthcare providers in the facility.
4. To assess the respectful maternity care provided at health facilities for mothers.
5. To develop recommendations for addressing identified challenges and barriers.

Chapter - 2

Methodology

Study Design: The study will be a mixed methods design with qualitative and quantitative components

- The qualitative component includes in-depth interviews (IDI) using a conversation guide and Focus group discussions of different stakeholders (program planners, care providers) and beneficiaries (mothers)
- The quantitative component will be an observational study

Study Setting: This study is undertaken across ten districts of Tamil Nadu. The districts are selected based on their most recent maternal mortality ratio (2022-2023). The 8 high MMR districts were selected along with two aspirational districts. The following Maps summarise the chosen districts and facilities.

The rationale for choosing the study setting:

Tamil Nadu as a state has made huge progress in terms of reducing maternal mortality, however there are certain districts which are lagging behind, so bringing improvement in these regions will help us to augment the decline of state's MMR. LaQshya initiative plays a key role in ensuring quality maternal and newborn care, so selecting districts which are not making expected progress towards MMR need to be understood and explored further for generating evidence, course corrections and priority actions. With this background high MMR districts and Aspirational districts of Tamil Nadu were chosen for this study.

Choosing facilities: Inside each selected district, facilities were chosen in such a manner that one medical college and at least one district or subdistrict hospital were included. A total of 27 facilities were visited for identifying challenges and 35 facilities were included for assessing Respectful maternity care. At the time of visit 7 of the facilities were in the process of LaQshya certification and the remaining facilities were certified.

Figure 6: Study districts selected:

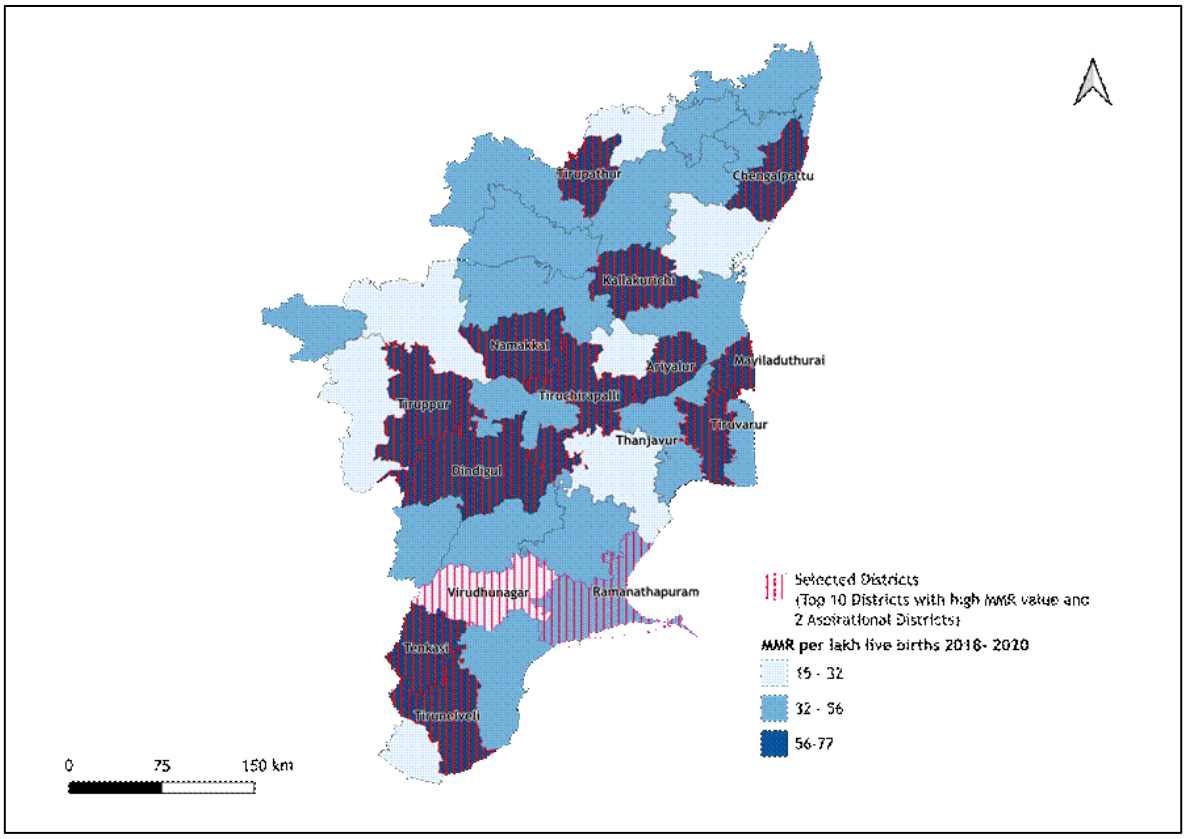
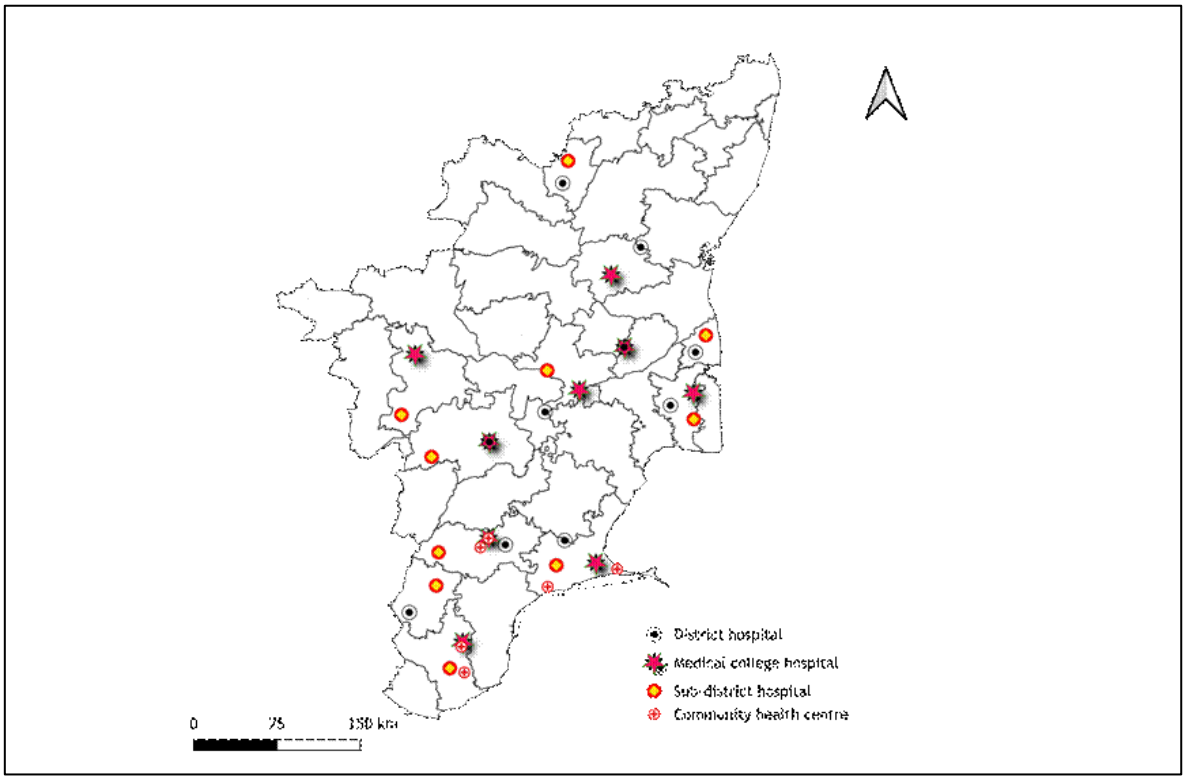


Figure 7: Facilities selected in each district:



Study population:

- Healthcare providers (Leaders – Dean, Matron, HOD)
- Doctors, Medical Officers, and staff nurses
- Pharmacist
- Sanitary supervisors and workers
- Mothers who had recently delivered (Normal delivery – within 3 days and Caesarean – 5 to 8 days) in selected government health facilities.

Figure 8: Project Activities Timeline:

Activities of study	% of work completed	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24
Planning of study											
Meeting district and state functionaries to orient on the project	100%										
Desk research to develop data collection tools	100%										
Development of data collection tools	100%										
Content validity of Respectful maternity care tool	100%										
Selection of districts and facilities	100%										
Formulating Field visit plan	100%										
Recruiting of investigators	100%										
Execution of project											
Data collection on respectful maternity care	100%										
Field visit and data collection in select government health facilities	100%										
Review of documents and observation of practices	100%										
LaQshya assessment by assessors	100%										
Data cleaning and analysis	100%										
Report writing and dissemination	100%										

Table 3: Summary of data collection tools:

Objectives	Tools used and sources	Target population & assessed by	Outcome expected
To understand the facilitators and barriers in implementing LaQshya - the health care providers' perspective	Context Assessment tool by Ariandne Labs	Leaders and staff nurses – By PI and a Social scientist	Heat map – facility, district-wise. To assess strengthen, challenge and develop plan of action.
	Focus group discussions and In-depth interviews	Leaders and staff nurses – By PI and a Social scientist	To generate themes and develop recommendations.
To assess the existing infrastructure and staffing gaps	In-depth Interview	Sanitary supervisors, sanitary workers, and Pharmacist By - Sanitation Officer	To assess the cleanliness, the storage of important drugs, the maintenance of trays, the knowledge gaps, and the need assessment
	Hospital statistics – Secondary data	Shared from facilities and districts By - Statistician	In the position staffs, staffs posted per block, shift, the staff needs for the delivery load
To understand the current LaQshya status and infrastructure	LaQshya checklist tool by the government of India.	Facility audit by government, the National and the state quality assessors	Scores in terms of Service provision, Patient rights, inputs, support services, clinical services, infection control, quality management, and outcome
	Case sheet audit – LaQshya guidelines	State quality assessors	To assess the clinical services provided

To determine the LaQshya-related training needs and job satisfaction of the health care providers in the facility	OSCE and Knowledge Assessment – checklist from DAKSHATA training manual as given by the Government of India	Doctors and staff nurses – By Obstetrician/Paediatricians/Maternal and Child Health Officer	Scores generated for various maternal and newborn protocols
To determine the job satisfaction of the health care providers in the facility	Employee Satisfaction Survey Questionnaire– Health system research tool	Doctors, Staff Nurses, Sanitary Supervisors and workers – By Sanitation Officer	To assess the level of job satisfaction and needs for better performance.
To assess the respectful maternity care provided at health facilities for mothers.	Respectful maternity care questionnaire developed based on WHO RMC tool – adapted to Indian context, content validation done through experts	Mothers and family members – Trained field investigators under the supervision of the Data Manager	RMC scores and domain-wise scores generated, variables which are contributing to poor RMC are assessed.

Description of the data collection tools:

RMC:

Operational definition:

Respectful maternity care – which refers to care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labor and childbirth - WHO (14)

RMC Tool:

A semi-structured questionnaire was prepared to collect background information, including demographic profile and the obstetric profile of the subjects for this study.
A respectful maternity care questionnaire was developed to measure intrapartum care provided by healthcare workers to women in labor.

The identification, selection, and development of items were conducted through a literature review focused on the measurement of Respectful Maternal Care (RMC) (15), the World Health Organization (WHO) guidelines for RMC (14,16), and the Patient-cantered maternity care tool (17). This tool consists of 30 items organized into six domains: Dignity and Respect, Communication and Autonomy, Supportive Care, Privacy, Confidentiality and Trust, Facility and Environment, and Predictability and Transparency of Payment.

The potential score range for the 30-item scale is from 0 to 90. Each response is based on a 2-to-4-point Likert scale, with higher scores indicating more positive responses. Additionally, some questions have categorical responses of "Yes" or "No." We also reverse-coded negative items to ensure that responses reflect a scale where 0 represents the lowest level and 3 represents the highest level. The questions in each domain are between 1 and 11. To ensure uniformity, the scores were normalised to 100.
Additionally, based on the requirement from WHO intrapartum care tool kit and LaQshya guidelines on dos and don’ts of labor room, additional domains such as Skin-Skin contact, Breastfeeding, Birth companion and Outdated practices were included. These sub-domains include 25 items, and scores will be generated based on the average of each domain.

Content validity: The domains and items were then evaluated through expert reviews. Our internal team initially reviewed the items individually and in several group discussions. We then sent revised versions to other public health experts to review. We received individual inputs from six public health experts outside our core team, with several years of experience. A formal expert review was then conducted by bringing together all eight (two from our team) public Health experts to review the items in a focus group discussion format. The expert reviews yielded suggestions for rewording many questions, as well as inclusion of additional questions for some of the domains. Based on the expert comments, the questions were modified.

Translation:

The translation of the tool was an iterative process. We recognized that nuances in language could affect the meaning of the questions, and some of the words in the English version may not have words in the local languages that directly translated to how they were used in English. To handle this, we spent a substantial amount of time during training of field officers to ensure that questions had the same meaning, even if the words used were a bit more colloquial. The tool was first translated into Tamil, by experts who could speak both English and Tamil. Translation went through a similar process of discussing the questions with the field officers during their training for the surveys. The final translated versions were based on consensus with the field team. Given the input of a local language speaker to the tool, we believe the questions in the local language were similar in meaning.

Data Analysis:

Frequency and percentage distributions were employed to describe the socio-demographic characteristics of the participants. This allowed for a clear representation of variables such as age, gender, educational background, marital status, and other relevant demographic factors and obstetric factors.

In assessing the quality of care provided by doctors and staff nurses in the context of respectful maternity care, key statistical measures, including mean, mean percentage, and standard deviation, were utilized. The mean provided an overall average of the scores obtained, while the mean percentage allowed for a relative comparison of the results within the defined parameters. The

standard deviation further aided in understanding the variability and consistency of the care provided, offering insights into the degree of uniformity in maternity care practices among healthcare providers.

These statistical analyses facilitated a comprehensive interpretation of the data, enabling an objective evaluation of how doctors and staff nurses adhere to the principles of respectful maternity care.

OSCE:

The objective structured clinical examination (OSCE) is a standardized approach designed to evaluate clinical skills in healthcare education. This assessment measures service providers' proficiency in performing designated clinical tasks systematically and impartially. It comprises 6 stations (usually lasting 5 to 15 minutes) where candidates rotate and are evaluated on specific skills. Each station targets a particular ability, such as taking patient histories, conducting physical exams, making diagnoses, as well as communication, counselling, or procedural techniques. Skill assessment of health care providers regarding the management of PPH, normal delivery, continuous active management of third stage of labor (AMTSL), Kangaroo mother care (KMC), essential newborn care (ENBC) and newborn resuscitation using OSCE checklist, adopted from the Dakshata guidelines structured for delivery of 'zero-defect' quality obstetric and newborn care. A score of 1 is given to each step that the participant performs correctly and in the proper sequence at each station. Overall score is added at each station. As the objective of the training is to build competency, the cut-off pass score for skills will be 80% individually, as per laQshya recommendations.

Knowledge assessment questionnaire:

A Knowledge assessment questionnaire is used to assess service providers' knowledge of evidence-based Maternal and newborn care practices. This tool is assessed along with OSCE to measure the knowledge and skills of the service providers. The questionnaire consists of 15 questions, (the last question is a match the following with 4 sub-items), with multiple choice answers. Each correct question is given the score of "1" and an incorrect answer as "0". The total score ranges between (0-18). Like OSCE, the cutoff pass score for knowledge is 80% individually.

Employee Satisfaction Survey:

The satisfaction of employees was measured using a 20-item scale, a self-administered questionnaire. The items in the questionnaire evaluate HCP's satisfaction across various aspects of work dynamics. Responses for the items are reported on a 5-point Likert scale, where 1 represents "Fully agree", 2 "mostly agree", 3 "Partially agree", 4 "fairly agree" and 5 "Disagree". An additional choice of "No comments" was also included. Each question was considered as an individual component of the employee satisfaction. For example: "The job gives me most satisfaction", "I feel my job challenging", "I feel often stress at work".

The Likert scale responses are converted to binary categories for analysis, such as Fully agree", "Mostly agree", "Fairly agree" as Agree and "Partially agree", "Disagree" and "no comments" as Disagree/neutral.

Data analysis:

Data is collected in a coGuide REAP platform (18) and analysis is done using MS Excel and SPSS. The data collected from the study participants underwent a thorough cleaning process to ensure accuracy and consistency. After cleaning, the data were systematically organized and analysed using descriptive statistical methods.

Ethical Clearance:

The study adhered to all ethical guidelines and obtained the necessary approvals from the **Directorate of Public Health – Institute Ethical Committee** and the **Scientific Advisory Committee**. Ethical clearance was granted under reference number **DPHPM/DPHSAC/2024/044/25/7/2024**, ensuring that the research met the required ethical and scientific standards. This approval confirmed that the study complied with principles of ethical research, including respect for human dignity, confidentiality, and responsible data handling.

Consent:

Before initiating any data collection processes, **informed consent** was obtained from all participants involved in the study. The objectives, purpose, potential risks, and benefits of the study

were clearly explained to them in a language they understood. Participants were allowed to ask questions and clarify any concerns before voluntarily agreeing to participate.

Participants were assured of their right to withdraw from the study at any point without any consequences. Additionally, confidentiality and anonymity were maintained throughout the research process, ensuring that personal information remained protected and was used solely for research purposes.

Chapter - 3

Study Findings

LR and OT assessment during the time of study:

NQAS checklist for labor room and OT:

The NQAS LR and OT checklist ensures the quality of care provided in the Labor room and OT. This standardized evaluation of labor rooms and OTs is assessed by a quality circle, to Improve infrastructure, hygiene, and clinical care, enhance staff competency and adherence to modern obstetric practices, promote patient-centred care and respectful maternity services, and Strengthen monitoring and accountability in maternal healthcare facilities.

Certification will be provided based on the assessment scores of the Labor Room & Maternity OT Checklists developed for NQAS, and it is valid for 3 years subject to annual verification of the scores by the State Quality Assurance Committee. A separate overall score of ≥70% must be achieved for both the Labor Room (LR) and Maternity OT departments (Table 2).

The LaQshya LR and OT assessment checklist covers eight key areas of concern:

1. Service Provision: Delivery of healthcare services.
2. Patient Rights: Respect and dignity in care.
3. Inputs: Availability of resources and infrastructure.
4. Support Services: Ancillary services supporting healthcare delivery.
5. Clinical Services: Quality of medical interventions.
6. Infection Control: Practices to prevent infections.
7. Quality management: Processes for monitoring quality.
8. Outcomes: Results of healthcare interventions.

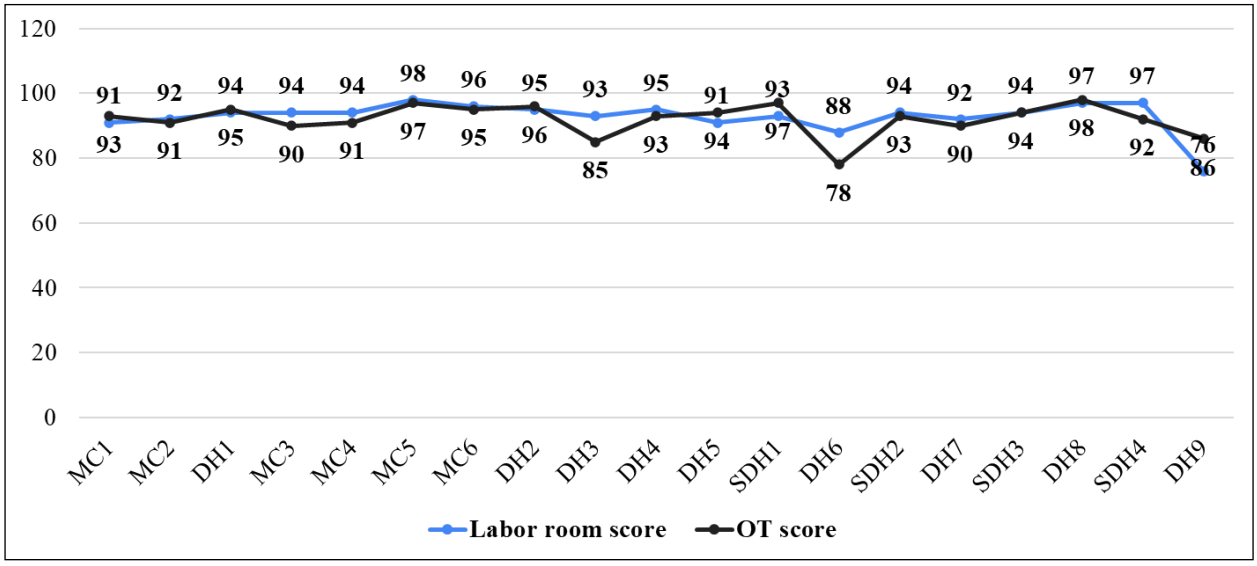
LaQshya labor room and OT score at the time of certification:

In Tamil Nadu, there has been significant progress in this initiative. The facilities (Medical college, district hospital, sub-district hospital), selected under each district in study settings have scored above 80% in terms of both LR and OT scores. District hospitals have scored around 76 to 78% in OT scores, but still, it is above the threshold score.

Tamil Nadu has made remarkable progress in implementing the LaQshya initiative, ensuring high-quality maternal and newborn care in labor rooms (LR) and operation theatres (OT). The healthcare facilities selected for assessment, including medical colleges, district hospitals, and sub-district hospitals across various districts, have consistently demonstrated strong performance.

All three facilities have achieved scores exceeding 80% in both LR and OT assessments, reflecting their commitment to maintaining high standards of care. While district hospitals (DH6, DH9) have scored slightly lower in OT evaluations, ranging between 76% and 78%, they still surpass the minimum threshold required for certification.

Figure 9: LaQshya labor room and OT score at the time of certification



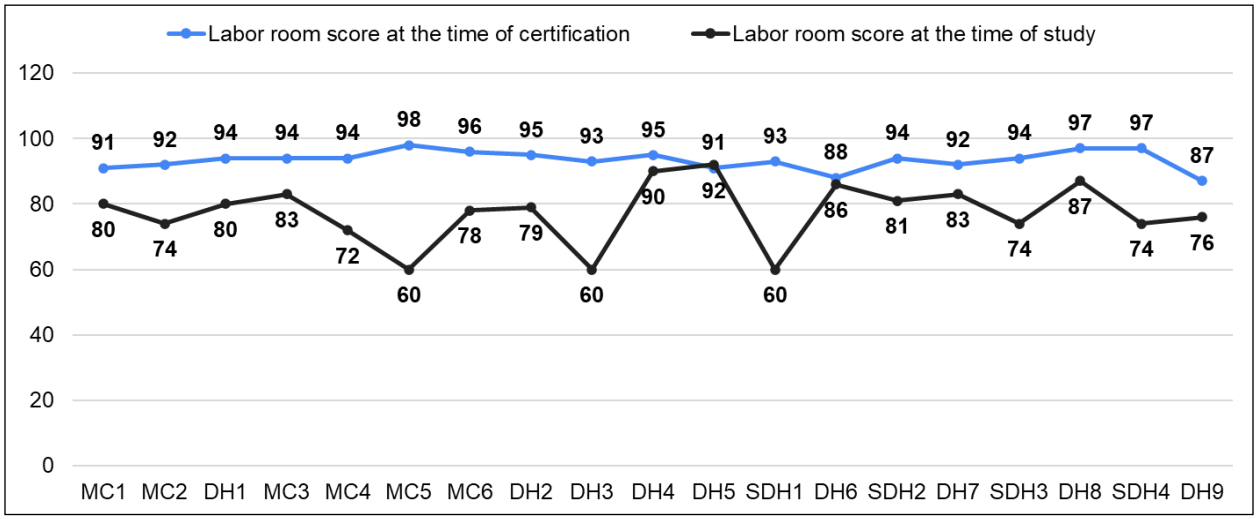
Though several facilities can achieve their targets outlined in LaQshya on the day of certification, there is a need to understand the sustainability of intervention done in LaQshya for delivering quality maternal and newborn care. To evaluate adherence to these protocols, all participating

facilities were assessed using the LaQshya Labor Room and OT checklists. Understanding the sustainability of these interventions is crucial for maintaining quality care standards over time.

Each domain comprises multiple checkpoints, these checkpoints are scored as “2 marks - full compliance, 1 mark - partial compliance, 0- No compliance.

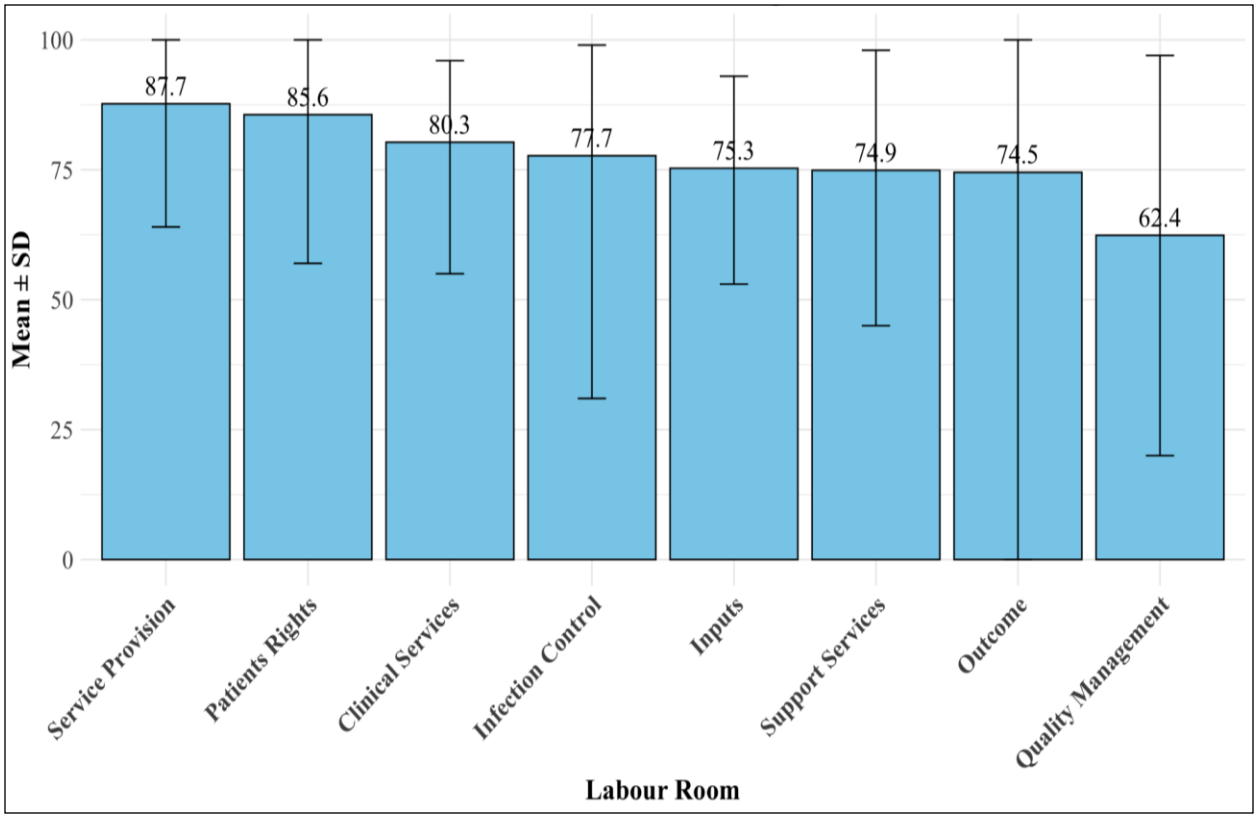
To understand LaQshya status, on a routine day (Study period), national and state-level assessors check the current status. The findings are summarised below.

Figure 10: Comparison of LaQshya LR score at the time of certification and at the time of data collection



- Overall, it appears the Medical College scores are relatively high for both certification (≥90%) and the study period (≥70%), compare to other facilities. However, the scores obtained at the time of study seem to fluctuate more compared to the certification scores.
- The district hospital scores also appear to be high (≥80%), but there seems to be a more significant drop from certification to the study period.
- The difference between at the time of certification and at the time of study, the scores are generally lower in sub-district hospital facilities, and lower than scores obtained in District hospital.

Figure 11: Areas of concern wise score (Labor room checklist)



Assessment summary (LR):

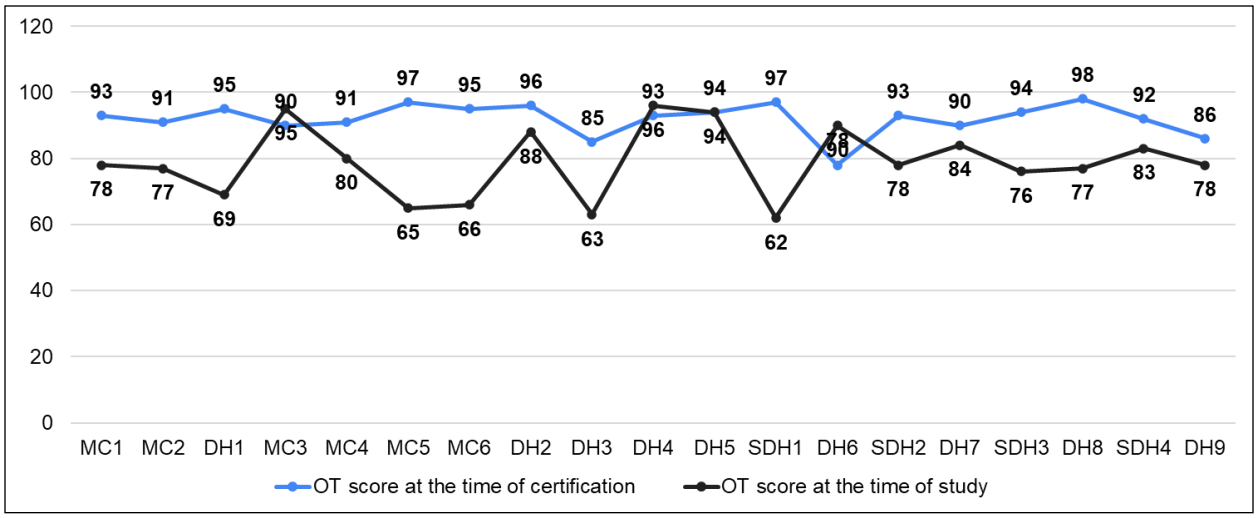
Strength/Good practices:

- The highest scores were achieved in "Service Provision" with an average score of 87.7 This is evident in the consistent delivery of curative services, including 24/7 labor room services, and the provision of comprehensive maternal and newborn health services.
- "Patient Rights" with an average score of 85.6%, reflecting a strong commitment to these standards.

Major Gaps observed:

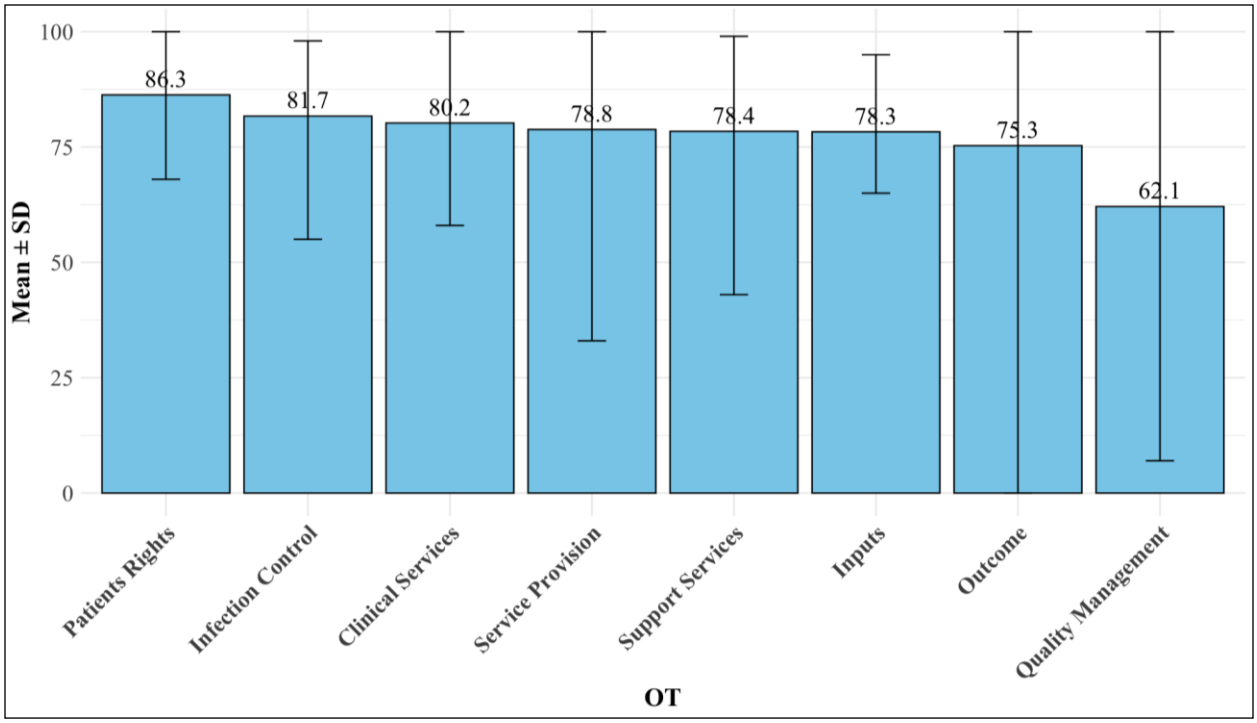
- The lowest score is in quality management, with an average score of 62.4, indicating a need for improvement.

Figure 12: Comparison of LaQshya OT score at the time of certification and at the time of data collection



- Similar to labor room scores, the OT scores at the time of certification generally appear higher and more stable than the scores at the time of the study.
- Medical colleges, shows consistently high (85-90%) at the time of certification, indicating a strong compliance with LaQshya standards. Scores between at the time of certification and at the time of Study fluctuate, but they continue to perform better than other facilities.
- The scores of District hospitals are also high at the time certification (80 -90%), but shows greater variability at the time of study period, with some of the district hospitals shows significant drop in scores.
- SDH shows greater variability in OT scores, compared to at the time of certification, with sharp decline, dropping below 70%.

Figure 13: Areas of concern wise score (OT checklist)



Assessment summary (OT):

Strength and good practices:

- The highest score was obtained in “Patient rights with an average score of 86.3” " indicating a good adherence to these indicators such as maintaining privacy, confidentiality, and dignity of patient-related information, providing proper information to care seekers, attendees, and community, and taking proper consent wherever it is applicable.
- “Infection control” - Average score 81.2%” indicating a strong adherence to these standards

Major gaps observed:

- The lowest score is in Quality management with an average score of 62.1, indicating a need for improvement in quality management

Importance of Quality management initiative in LR and OT settings:

Improvement in health care delivery requires a deliberate focus on the quality of health services, which involves providing effective, safe, people-centred care that is timely, equitable, integrated, and efficient. WHO emphasizes the importance of quality care, for maternal, newborn, child, and adolescent health (19).

Increasing evidence shows that ensuring quality care prevents death and disability. High-quality health systems could prevent an estimated half of all maternal and newborn deaths alone according to the Lancet Commission on High-Quality Health Systems (2018) (20). Delivering high-quality, safe, efficient, and coordinated health services, requires proper quality management initiatives. A well-defined operational plan for quality management implementation including resources, training, and time frame is also necessary. Hospitals should set strategic directions, establish a long-term vision, develop values required for long-term success, set strategic goals and objectives, incorporate quality in the strategic goals and objectives, and implement these via appropriate strategies, policies, and action plans.

Recommendations for improvement in LR and OT practices:

- Assemble a team with diverse skills, including clinical, administrative, and quality improvement expertise. This team should be empowered to drive quality initiatives
- Implement frameworks like Plan-Do-Study-Act (PDSA) or 5 Sigma to systematically address quality gaps
- Make sure, internal assessments and regular audits are done periodically and their corrective actions are considered for sustained quality enhancement
- Each facility should maintain a SOP, for all the key process and support services, ensuring consistency, compliance, and efficiency in operations.
- Education and training develop HCP's capabilities on a continuous basis, secure their commitment to continuous quality improvement, and empower them to promote quality change. It also helps reduce staff resistance toward quality management changes.

Chapter - 4

Qualitative Findings


FGD WITH DOCTORS AND MATRONS
Your paragraph text


FGD WITH STAFF NURSES


CAT WITH LEADERS


CAT WITH STAFF NURSE


IDI WITH SANITORY WORKER
அரசு மாவட்ட தலைமை மருத்துவமனை
மன்னார்குடி
திருவாரூர் மாவட்டம்


GOVERNMENT HOSPITAL
LAQSHYA PROJECT VISIT TO SUB DISTRICT HOSPITAL


LAQSHYA PROJECT
VISIT TO DISTRICT HOSPITAL


LAQSHYA PROJECT VISIT
TO MEDICAL COLLEGE

Context Assessment Tool

Introduction

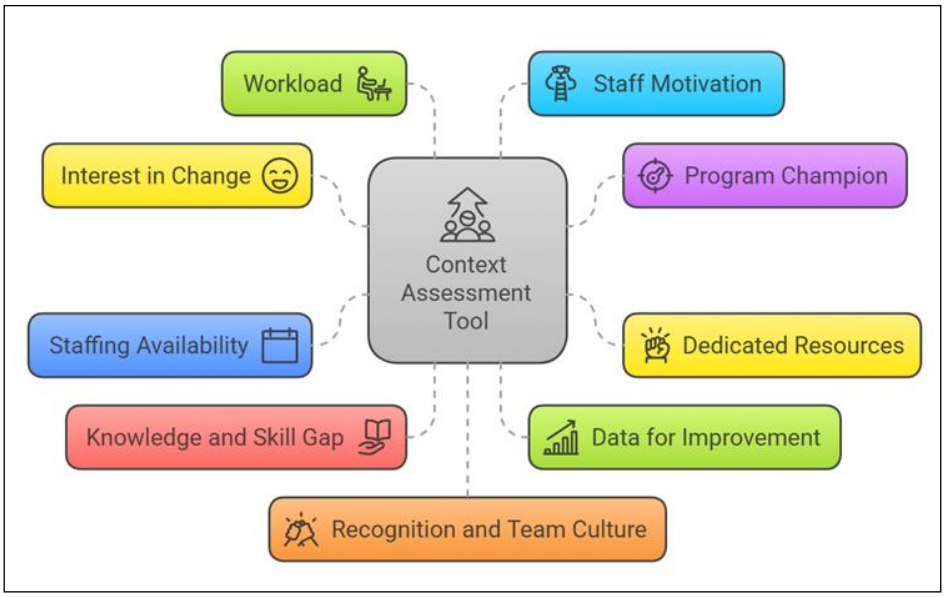
The Context Assessment Tool, developed by Ariadne Labs, is a comprehensive guide designed to evaluate the readiness of healthcare facilities for implementing specific practice changes. This tool facilitates a structured conversation with key stakeholders, including leadership, staff, and patients, to identify strengths and challenges that may impact the success of the proposed change. The tool is particularly useful in healthcare settings where understanding the internal and external environment is crucial for effective implementation. (The tool is attached in Annexure for reference.)

Purpose of the Context Assessment Tool

The primary purpose of the Context Assessment Tool is to gather qualitative data that can inform the implementation strategy of a practice change. By engaging with various stakeholders, the tool helps in:

- Identifying existing strengths and potential challenges.
- Understanding the facility's internal culture and external relationships.
- Tailoring the implementation plan to the specific context of the facility.

Fig 14: Domains assessed in the Context assessment tool:



How to Use the Context Assessment Tool

1. Selection of Participants

- Leadership: Engage with at least 2 facility leaders (e.g., Medical Director, Nurse Manager).
- Staff: Include at least 3 to 5 frontline staff members (e.g., Nurses, Doctors, Midwives).

2. Conducting Discussions

- Introduction: Introduce the purpose of the conversation and its relevance to the upcoming change.
- Problem Statement: Provide a brief description of the problem, the ideal state, and the proposed change.
- Questions: Use the provided questions to explore areas of interest, such as implementation plans, internal culture, and community engagement.

3. Facilitation Tips

- Flexibility: The guide does not need to be followed verbatim. Adapt questions to steer the conversation effectively.
- Comprehensive Coverage: Aim to cover multiple domains for a holistic understanding, but prioritize based on available time and resources.
- Documentation: Take detailed notes during or immediately after discussions. Audio recording is not recommended during regular use.

4. Scoring and Interpretation

- Scoring Worksheet: Use the Scoring Worksheet to assign an overall score per topic based on discussions.
- Interpretation: Identify strengths (scores of “3”), Some limitation (Score of “2”) and challenges (scores of “1”). Note any discrepancies between different stakeholder groups.

- Action Plan: Develop an implementation plan that leverages strengths and addresses challenges. Share findings with facility leaders and implementation team members.

Where to Use the Context Assessment Tool

Healthcare Facilities

- Pre-Implementation Phase: Use the tool after staff have been introduced to the proposed practice change but before it is incorporated into daily workflows.
- Ongoing Implementation: Optionally, administer the guide at additional time points to refine the implementation strategy.

Benefits of Using the Context Assessment Tool

- **Customized Implementation:** Tailor the implementation plan to the specific context of the facility, increasing the likelihood of success.
- **Stakeholder Involvement**: Engage key stakeholders, fostering a sense of ownership and investment in the change.
- **Identify Challenges Early**: Detect potential challenges early in the process, allowing for proactive adjustments.
- **Leverage Strengths:** Identify and leverage existing strengths within the facility to support the implementation.

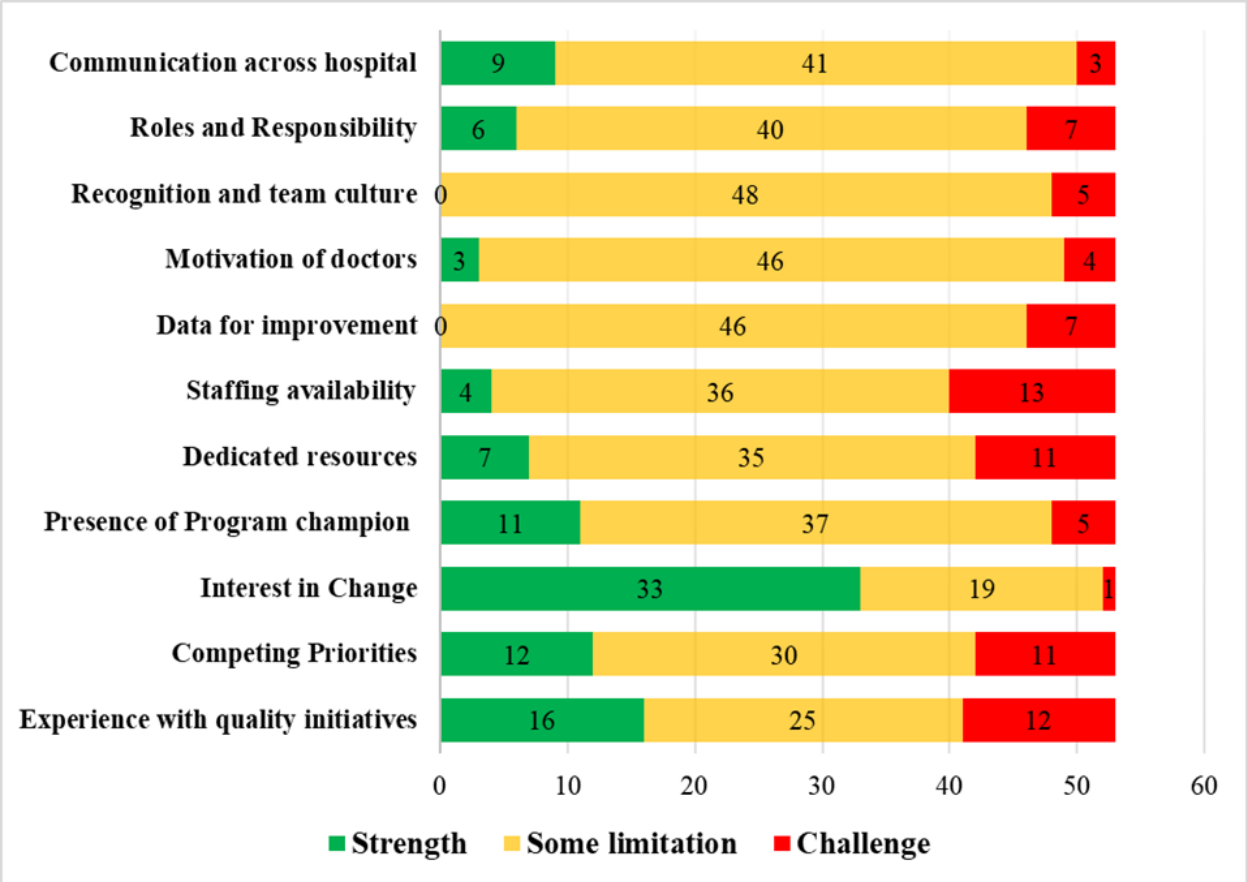
The Context Assessment Tool is a valuable resource for healthcare organizations looking to implement practice changes effectively. By systematically gathering and analysing qualitative data from key stakeholders, organizations can develop a nuanced understanding of their context and tailor their implementation strategies accordingly. This approach not only enhances the likelihood of successful implementation but also fosters a culture of continuous improvement and learning.

This tool was used as a conversation guide to highlight various domains and aspects of the LaQshya initiative. **53 leaders** (Hod, dean and matron) and **104 staffs** across 25 facilities were interviewed in depth using this tool. Each domain was discussed in detail to understand the facilitators and barriers.

Table 4: Summary of Conversation Tool guide used in qualitative research:

Cadre interviewed	Medical college	District Hospital	Sub-District Hospital	Others (CHC/PHC)	Total
Matrons	13	8	8		29
Doctors (CMO/Head)	5	7	11	1	24
Staff nurse	31	34	35	4	104
Total	49	49	54	5	152

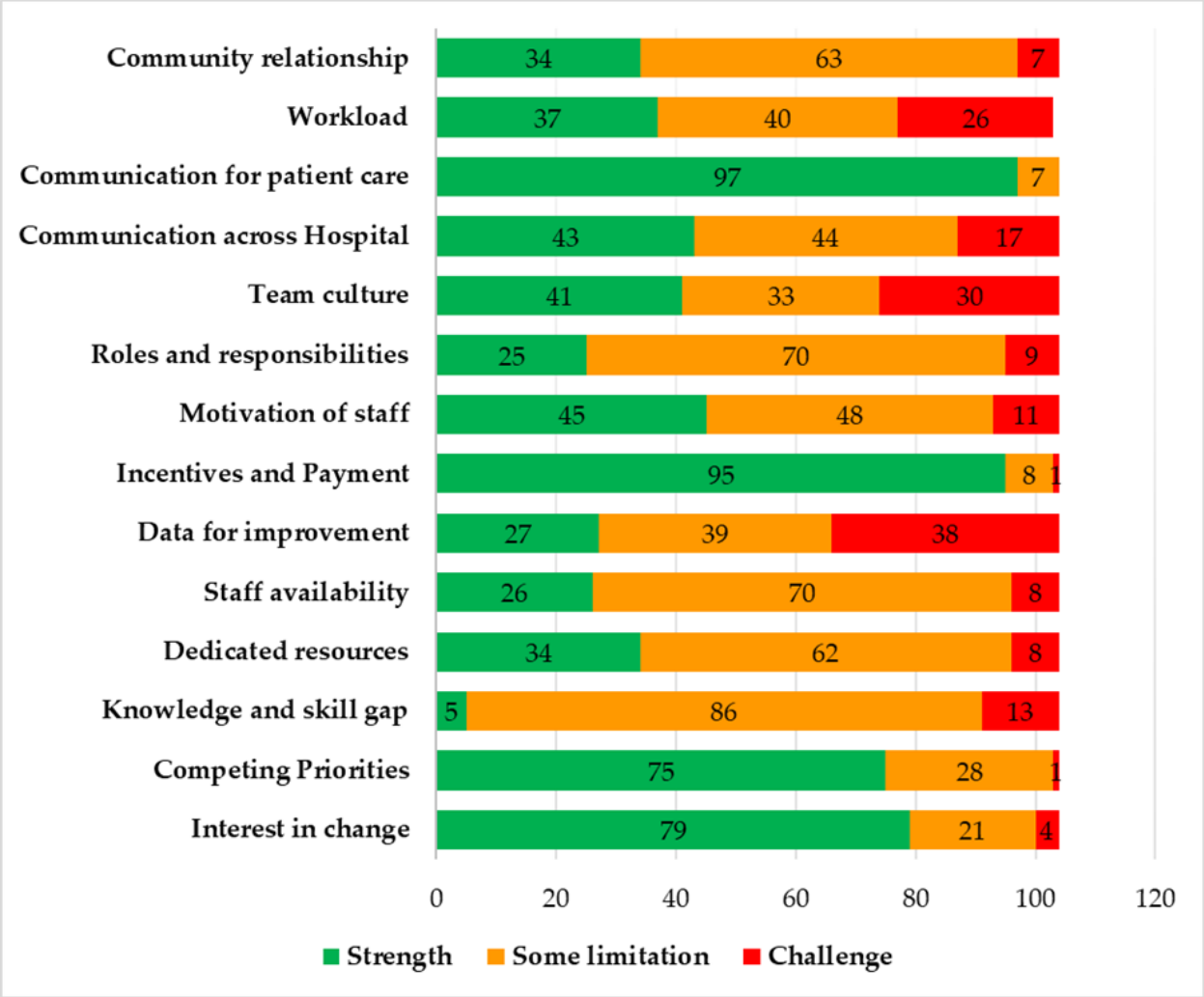
Figure 15: Context Assessment tool findings from leaders:



Among the leaders interviewed key domains identified as strengths were as follows. Majority (33) were interested in the change and one fourth had previous experience with quality initiative. However, majority felt some limitation or challenge across all the domains. None of the leaders

felt that **data for improvement and recognition/team culture** is acting as a strength in LaQshya initiative. This is followed by areas like **motivation of health team and staffing availability** where majority feel there is some limitation and challenge. These are the major themes generated based on interview with leaders of selected public health facilities. Several in-depth interviews and Focus group discussions were conducted to arrive at subthemes for actionable points.

Figure 16: Context Assessment tool findings from Staff Nurses



Among the interviewed 104 staff nurses, majority identified the following areas as strength:

- **Communication for patients care (97 individuals identified as strength)**
- **Incentives and Payment (95 individuals identified as strength)**
- **Interest in change (79 individuals identified as strength)**
- **No competing priorities (75 individuals identified as strength)**

Following are the key areas identified as challenge or some limitation by the staff nurses:

- **Knowledge and skill gap (99 identified as challenge or some limitation)**
- **Data for improvement (one third identified as a challenges)**
- **Roles and responsibility (79 identified as some limitation/challenge)**
- **Staffing availability (78 identified as some limitation or challenge)**
- **Dedicated resources (70 identified as some limitation or challenge)**

Table 5: Domain wise Challenges/Some limitations experienced by Leaders in Various type of facilities

Domains in CAT tool for Leaders	Based on % of Challenges/Limitation across domains		
	Medical College	District Hospital	Sub District Hospital
Competing Priorities			
Interest in Change			
Presence of Program champion			
Dedicated resources			
Staffing availability			
Data for improvement			
Motivation of doctors			
Recognition and team culture			

Roles and Responsibility			
Communication across hospital			

Table 6: Domain wise Challenges/Some limitations experienced by Staff nurses in Various type of facilities

Domains in CAT tool for Staff nurses	Based on % of Challenges/Limitation across domains		
	Medical College	District Hospital	Sub District Hospital
Knowledge and skill gap			
Roles and responsibilities			
Communication across Hospital			
Data for improvement			
Community relationship			
Workload			
Staff availability			
Motivation of staff			
Team culture			
Dedicated resources			
Interest in change			
Competing Priorities			
Incentives and Payment			
Communication for patient care			

The colour coding in above table helps to quickly identify which domains are most problematic for each type of facility, and as experienced by which cadre of health care staff. This allows for targeted interventions to address these specific challenges. The challenges are categorized into

various domains, and the extent of the challenge is indicated by the colour coding, with different colours representing different levels of challenge or limitation as represented by the percentage of leaders who have told that particular domain as challenging.

Summary of findings from above color-coded graph:

Common themes emerged:

- **Data for improvement** is a critical area identified across **all facilities** and across both groups of **leaders and staff nurses.**
- **Recognition and team culture and motivation of doctors** is identified as challenge by **leaders** across **all types of health facilities.**
- **Knowledge and skill gap** is identified across **all facilities** as challenge by **staff nurses.**

Medical college:

- In addition to common themes emerged, both **leaders and staff nurses** identified the domain **Roles and responsibility** as challenging area in medical college.
- **Staff nurses** felt challenges in the area of **communication across hospital** in medical college.

District Hospitals:

- In addition to common area identified**, staffing availability** is identified as challenge by **leaders** as well as **staff nurses.**
- **Workload** is identified as challenge by **staff nurses** of district hospital

Sub-District Hospital:

- In addition to common themes **staffing availability** and **roles and responsibility** is identified as challenge by **staff nurses** and **dedicated resources** is identified as challenge by **staff nurses** and **leaders** in sub district hospitals.

Thematic area-wise findings:

THEME 1: DATA FOR IMPROVEMENT:

LaQshya being a quality improvement initiative is heavily dependent on data for improvement and certification.

Strength identified:

Efficient use of data:

Certain district and sub-district hospitals are conducting regular reviews of their data involving all the members of the labor room team, this is enhancing team efforts and motivation for all the staffs. They are able to identify gaps and take priority action based on their data.

*SN 1: "We all regularly **attend LaQshya QI meetings**, at our facility. That is how we know about the hospital data"*

*SN 2: "We do **regular quality circle meetings**, identify quality challenges……. do training accordingly"*

Limitations identified:

Transparency, data sharing and using data for action:

Many centres felt that staff nurses were not part of the LaQshya meeting and they are not aware about the data and where they are lacking.

SN 3: "Meetings are usually attended by only one person nominated for LaQshya, not all staff nurses in labor ward are conveyed about the data discussed"

Doctor 1: "We are not made aware about using data for action, we are mostly involved in clinical care, it will be good if we are oriented on how to use data to improve quality of care"

Doctor 2: "All meetings and NHM letters come to JD office our facility doesn't get all messages all the time. It depends on the person at office. HOD attends the meeting and discuss with doctor….. The still birth rate, neonatal MR, IMR of our hospital we don't know"

Difficulty in maintaining multiple registers and records:

Multiple registers and physical copies are being maintained by the staff nurses in addition to their routing record maintenance activity. This is highlighted as a challenge for discharging quality patient centred care in the labor room. The process of record maintenance has been described by many interviewed personals as tedious and elaborate which is limiting their time spent in discharging clinical duties.

*SN 4: "I have to **maintain LaQshya registers in addition to already maintained registers,** it will be helpful if they can make this simple for us. I spend my 2 hours at the start and 2 hours at the end of my duty only on making record entry"*

*Doctor 3: "Every time to know about the LaQshya status I have to ask someone and they have to **take from multiple registers** and give me the numbers. It is the need of the hour to simplify the labor room record keeping"*

Lack of manpower for accurate data:

At the currently existing workforce the facilities feel it is challenging to manage data maintenance, as most of it is taken care by the staff nurses who are also working for clinical care**.**

*SN 5: "Separate **manpower needs to be posted for writing records and** register; it will reduce the stress of staff nurses"*

*Doctor 4 (SDH): "**A single nurse and a single doctor can't do all the work** simultaneously, such as providing care to mothers and writing documents. There is no helping hand during emergency situations to manage the cases"*

THEME 2: RECOGNITION, TEAM CULTURE AND MOTIVATION:

Strength identified:

Ownership from leaders contributing for positive team culture: (in District/Subdistrict hospitals)

Leaders were identified as pillars in many places. Very supportive team culture found in few facilities, where the leaders are approachable and work in close collaboration. It contributed for a smooth delivery of quality care.

*SN 6: "Every year our **CMO give rewards to better performed staffs** and arrange one day tour for motivating us"*

*SN 7: "I was given **award by my CMO** when I efficiently managed a PPH mother"*

*SN 8: "We go for **all functions together with our HOD**. She is here for a long time……."*

Longer duration in the Facility/Department: In centres specifically where the non-rotation policy exists among staff nurses, the staff nurses working together in labor room/CEMONC centres share a sense of friendship as they work together for long duration. They found it easier to manage workload and stress. In some facilities where the CMO or head of the department are working for longer duration had better relationship with their staffs as well as the community. Such centres have better team culture and are functioning efficiently.

*SN 9: "Our CMO is working here **for more than 20 years, He is a huge motivation for us.** He guides us in all aspects"*

Limitations identified:

Burnout acting as a catalyst for lack of motivation: Many interviewed doctors as well as staff nurses who are working long hours, in high load delivery centres had work exhaustion, stress and burnout which was directly contributing for their lack of motivation. They were also not having any work life balance which was further adding to the negative impacts.

*Doctor 5 (OG): "I **perform ten duties per month**, working once every three days, which leads to burnout, after that I'm completely drained out to involve in any additional activities like LaQshya"*

*Doctor 6 (OG): "Due to more stress and continuous duty **few doctors have absconded from service,** many are considering to leave"*

Doctor 7: "Previously we were four. Two left recently DRP doctor is also leaving soon ……."

Lack of special incentives for labor ward staffs: Labor ward itself is a highly critical and intensive setup to work. So, the health care staffs in labor ward tend to work twice as hard as their contemporaries. In spite of offering dedicated service, often times they are not specially recognised in any way. This is contributing to their lack of motivation.

*SN 10: "Though we **work hard than other department staffs, we are not incentivised** in any way"*

***Poor rapport between leaders and staff nurses:** Few facilities, showed that there was lack of ownership, collaboration from leaders (doctors heading the department or facility). Their lack of involvement, interest and motivation was directly reflected in their teams work and efficiency.*

Doctor 8: "All want to leave at the end of six months … difficult to make them stay"
Doctor 9 (HOD): "I request for only one thing. I have asked for VRS if that is given, I would like to take early retirement"

THEME 3: KNOWLEDGE AND SKILL GAP

This was particularly identified as an area for improvement from staff nurses and matrons. Among observed centres in the study.

Strength identified:

Non-rotation policy contributing for better skill development: In few facilities, non-rotation policy of staff nurses for labor room is implemented. Many staff nurses are working for more than 5 years in CEMONC centre. So, they claim that they are confident in managing obstetric and newborn emergencies. One such centre has even shown zero maternal death.

*SN 11: "We are all (the five nurses) working in the **labor ward for more than five years as a team without any rotation, s**o we are able to handle any emergencies with confidence"*

*Doctor 10 (Dean): "Initially they all wanted to leave now, Now **I have convinced them to stay as** it is difficult to improve new staffs' skill"*

Regular facility-based skill training: In few facilities, LaQshya nodal Obstetricians are routinely conducting knowledge and skill enhancement training to the staff nurses of their team. They organize the trainings based on Dakshata training modules. This has positively improved the skills and confidence of such facility staff nurses.

*SN 12: "We **are adequately trained** to manage emergencies. Once I received a mother with PPH during night time. Before doctor arrived, I was able to carry out **the initial PPH management. I alerted the medical college** and planned referral for the mother. I also travelled with the mother to medical college. We were **able to save her life**. I felt very happy and satisfied with my work"*

Limitations identified:

Staff rotation policy contributing for substandard skills: In majority medical colleges the staffs are routinely rotated within and also outside the obstetrics and gynaecology department. Many staff nurses are newly posted to labor ward without much exposure to conducting normal labor or newborn care. There were instances noted in many centres where the staff nurses expressed concerns and were hesitant to deliver labor room care. Experienced and skilled nurses with hands on labor room experience are being shifted out as they complain of stress and burnout when they work for longer duration in labor room.

SN 13: "I have previously worked in many departments, except labor ward. I have joined here 2 months back. I am scared to handle any labor cases. Mostly all cases are handled by doctors and CRRI's we mostly work in writing case sheet and record maintenance"

Matron 1: "Everyone wants to leave after LaQshya certification, there is lot of pressure from the association to post outside labor room, but HOD wants to retain staff"

Doctor 11: "Everyone wants to leave with lot of difficulty I retain 25% of staffs"

Lack of skill-based hands-on training: Many staff nurses feel that even though they have all modules and materials for referral with them, they are not strong in their skills aspect. They feel they need skill-based training and regular retraining with hands on experience.

SN 14: "Many times we are asked to attend online training; it is difficult to concentrate after labor ward duty keep on writing the registers at the same time attend online meetings"

Limited opportunities for skill enhancement: In many medical colleges, staff nurses are having limited training opportunities. Regular classes or academic sessions for updating of knowledge and skills are not systematically targeted for staff nurses.

SN 15: "Mostly we are engaged only in routine work, any additional classes or skill training we have not attended in recent days"

SN 16: "I have attended LaQshya training and skill lab when I was in PHC"

Choosing of matrons with limited previous experience:

In many health facilities the matrons who are in-charge for labor ward have very minimal labor room experience. So, most of them only concentrate on manpower management. They are not looking after improvement of clinical care services. Their previous limited experience is acting as a barrier for involving in labor room quality improvements.

Matron 2: "I have worked all my life in some other clinical department, I have not once worked in Labor ward, but now I'm posted as Matron for labor ward also. I know my limitations so I mostly manage the staff nurse posting alone"

SN 17: "We got training long time ago. In our days it was mainly bed making, now lots of changes have come in quality"

THEME 4: ROLES AND RESPONSIBILITY

The qualitative findings related to the Roles and Responsibilities theme highlight key concerns expressed by participants regarding their professional duties. The findings indicate a lack of clearly defined job responsibilities, leading to confusion and inefficiencies in task execution. Participants

expressed uncertainty about their daily responsibilities, which becomes particularly evident during certification processes when additional work requirements arise. Furthermore, the burden of attending multiple meetings and participating in various programs appears to contribute to role ambiguity and workload challenges. These findings suggest the need for structured role definitions, better communication, and efficient task allocation to enhance workflow and productivity.

Limitations:

Lack of awareness on Roles

Matron 3: "Every day morning, I go to matron office and I am told where to go for work No specific work allotted for me"

Matron 4: "*We are mostly doing posting for staff nurses and preparing duty roster"*

SN 18: "No, ***we don't have any defined Job responsibilities****. We just do the work which is regularly done"*

SN 19: "We don't do any special work for LaQshya ***we are not aware that we should do it daily, more work will be there when we go for certifications"***

Too many responsibilities

Doctor 12 (Dean): **"*We are involved in many meetings and programmes. So, we can't give more attention"***

THEME 5: STAFF AVAILABILITY

Staff shortages in labor rooms present significant challenges in providing quality maternal and neonatal care. A reduced number of healthcare professionals, coupled with inadequate staffing per shift, leads to increased workload and exhaustion among existing staff. This affects the timely monitoring of patients, prompt decision-making, and overall efficiency in handling deliveries, especially in high-risk cases. Additionally, the absence of earmarked seats based on specialties in district and sub-district hospitals exacerbates the issue. Without designated positions for specialists such as obstetricians, anaesthetists, radiologist and paediatricians, resource allocation becomes inconsistent, leading to gaps in care. The

lack of structured staffing patterns results in frequent shortages of skilled personnel, making it difficult to manage emergencies and provide comprehensive maternal and newborn care.

To address these challenges, policies should focus on increasing the workforce, implementing shift-based staffing strategies, and ensuring the proper designation of specialists in hospitals. This would help improve patient outcomes, reduce staff burnout, and enhance the overall functioning of labor rooms.

Strength identified:

Medical college supporting staff needs at all levels

In a district there was a mutual coordination and collaboration between experts and staff nurses working from primary to tertiary care centre. There is need based sharing of work observed between facilities of the district. In one district OGcians, from medical college hospital are providing their services at secondary and primary health centres, they conduct caesarean based on patient load of the facility. This is reducing the case burden on a single facility and also helps to fill the manpower shortage gaps.

Doctor 13: "I am a mentor OGcian of our district, in our district medical college Ogcians are posted to district or sub-district hospitals in rotation based on delivery load and manpower shortage."

Limitations:

Limited Number of staffs: In few facilities the number of Ogcians are very less, this is particularly observed in subdistrict and district hospitals. These places OG doctors are taking up shifts once every 3 or 4 days, which is causing negative impact on their work as well as mental health.

Doctor 14 (SDH): "Only one OG and one Anaesthetist are working, When the Anaesthetist take post duty or weekly off Obstetrician cannot do C-section, similarly when OGcian is in week off, though anaesthetist is available we refer cases"

Less number of staff nurses per shift: In some high load delivery centres particularly medical colleges a smaller number of staffs are posted per shift. The number of staffs allotted to labor room is not increased keeping up with increasing delivery load and bed strength.

*Matron 5: "We have been **posting the same number of staff nurses as usual** we have not increased the numbers"*

Matron 6: "New buildings are sanctioned, but staff strength remains the same"

Lack of earmarking of seats in DH/SDH based on speciality:

*Doctor (DH): "In my district **there is no radiologist** at district hospitals, so we are asking mothers to get expert USG outside in private or they have to travel to medical college"*

*Doctor (DH): "Doctors from other specialities are more compared to OG, Paediatrics, Radiology and anaesthesia. The **counselling in DMS side should consider earmarking seats for specific specialities** based on need of the facility"*

THEME 6: DEDICATED RESOURCES

Limitations identified:

Lack of supporting staff: A shortage of trained healthcare providers, including obstetricians, nurses, and support staff, leads to increased workload, delays in patient care, and challenges in managing obstetric emergencies effectively. Particularly Security staffs are not allotted for hospitals with less than 50 bed strength

…….

*Doctor (SDH): "We don't have security exclusively for CEMONC, when **beds are less than 50 supporting staffs are not sanctioned**"*

Strengthening Emergency Ambulance Services in Hard-to-Reach Areas: Limited availability and accessibility of ambulances, especially in remote locations, result in delays in reaching healthcare facilities, increasing the risk for mothers and newborns during emergencies.

*Doctor (SDH): "Sometimes when we call 108 ambulances, they have taken one case, **we need to wait for that ambulance to return** to take the next case, especially for newborn referral"*

Ensuring Timely Oxygen Supply: Unreliable oxygen supply chains hinder critical maternal and neonatal interventions, particularly for managing birth asphyxia, preterm complications, and maternal emergencies requiring oxygen therapy.

*Doctor: "Sometimes the oxygen dealers come whenever there is a need in medical college. They will **combine the trip for district hospital** along with medical college"*

THEME 7: WORKLOAD

Limitations identified:

Staff nurses in labor rooms face significant challenges due to high patient volumes and inadequate staffing.

Physical Constraints to Carry Out Excess Workload: In many medical colleges many senior staffs and matrons are unable to fulfil their roles and responsibility due to advanced age. They cited that their physical health is acting as a hurdle in discharging all their functions.

*Matron 2: "I'm retiring in one year; **at this age, it is difficult** for me to function as labor room matron, in addition to other wards."*
SN 4: "I have knee pain now, I couldn't work as actively as before, labor room requires lot of physical work"

SN: Now I am more than 45 years. There is no chance for promotion, since I am in labor ward for long time, they ask me to continue night. Even after I go home lots of phone call from hospital. Since I hand over to next staff, she calls me often and it's difficult to complete work …… At least after 40 yrs can reduce labor ward/OT, we can work in AN/PN ward in CEmONC itself, and guide junior staff

Disproportionate Workload Distribution: An uneven distribution of tasks among healthcare providers results in excessive strain on some nurses while others may have a lighter workload, leading to inefficiencies in patient care.

*SN 3: "Those who **work more are given more work"***

*SN 5: "We don't want to work continuously in CEMONC, **other ward staff nurses are free** compared to us"*

Stress Due to Workload: Continuous exposure to high-pressure situations, long working hours, and minimal breaks contribute to physical and emotional exhaustion, increasing burnout and reducing job satisfaction.

Matron: "After LaQshya all staff nurses want to move out of Labor ward. ***They feel lot of stress****. They say it is* ***affecting their life after work*** *also"*

SN 1: "Sometimes when we see cases which become sick it is affecting us even in home. ***We feel guilty****, so we don't wish to say in labor room for long"*

Focus group discussion with leaders and staff nurses:

Qualitative Analysis – Further Exploration into Thematic Areas

Theme 1: I got trained but moved out / I joined recently

Our qualitative data highlights the professional experience and training background of the healthcare professionals, particularly in the maternal and newborn care sector. The experience levels among respondents range from one year to over fifteen years, showcasing a mix of new and seasoned professionals actively engaging in continuous learning.

Most participants express confidence and enthusiasm about their training, emphasizing its role in enhancing their competencies. Some responses suggest a sense of pride, while others convey nervousness or excitement about their professional growth

"Calmly said I've been in the field for over twelve years. I completed my nursing training back in 2011 and then did the CEmONC and LaQshya training in Chennai".

"I've been a staff nurse for 15 years, with 2 years spent in the labor room. I've attended Dai training long back and Dakshata training, and now, I'm attending LaQshya training for the first time. It's been a great opportunity for me".

Subtheme 2: Journey of continuous learning

The data highlights the varied training experiences of healthcare professionals working in maternal and newborn care. While some participants have completed LaQshya, Dakshata, and Skill Birth Attendant (SBA) training, others have yet to begin these programs. A few have undergone alternative specialised training such as MVA, MTP, adolescent, TTIC, PPH, CEmONC, midwife delivery, RCH, laparoscopy, and family planning training.

Participants range from newcomers with a few months of experience to seasoned professionals with over 27 years in the field. Many acknowledge the importance of continuous learning, with

experienced staff expressing pride in their extensive training, while newer staff feel nervous but eager to grow.

The findings suggest a gap in standardized training uptake, with some professionals missing out on key maternal care programs like Dakshata and LaQshya. The situation highlights the need for structured training implementation to ensure all healthcare workers receive the necessary skills to improve maternal and newborn health outcomes.

Some expressed that they were trained when they were in PHC in MCH care more than 16 yrs after CEmONC training.

"I've been a nursing superintendent for 27 years, mostly in the RCH department. I've spent 6 years in the labor room. Over the years, I've completed various courses: midwife delivery training in Chennai, RCH training, laparoscopy and LS training, family planning training, and more recently, Dai training. Pauses and looks proud. "It's been a journey of continuous learning."

Subtheme 3: Gap in quality-of-care training

Several participants, including those with over a decade of experience, acknowledge that they have not attended these crucial trainings. Newer staff, some with only a few days or weeks in service, have not yet begun any training. The gap suggests a need for better planning and accessibility to ensure all healthcare workers receive the necessary training for providing high-quality maternal and newborn care. All new entrants to be trained before being posted to labor room

"I've been working for over eight years and completed PPH training in Dindigul. But, like everyone else here, I haven't begun the Dakshata, LaQshya, or MCH skill lab training."

Subtheme 4: Online or offline training….

The discussion in our study reflects mixed experiences and preferences regarding online and offline training for healthcare professionals. While some find online training more accessible and flexible, others have faced technical difficulties. A few participants prefer online sessions because offline training often requires travel to other districts, causing logistical challenges.

Some professionals appreciate having both online and offline options, as it allows them to fit training into their busy schedules. Suggestions include extending training durations and scheduling online sessions at convenient times (such as 3-4 PM) to improve participation. However, a few respondents highlight a gap in accessibility by mentioning that they have not received any training opportunities.

Overall, the findings suggest that while online training is generally favoured, improvements in technical support, scheduling, and access to both online and offline formats could enhance participation and learning outcomes.

"The online classes are easily accessible, but I've faced some technical difficulties. Honestly, I prefer online learning because offline learning often takes place in different districts, posing significant travel and scheduling challenges. I would appreciate it if they could extend the training duration. Maybe five days, depending on the course."

Subtheme 5: Training – priority/schedule/skill based

Our study highlights the key challenges and suggestions related to the accessibility, scheduling, and effectiveness of training programs for healthcare professionals. A major concern is that timing conflicts with work shifts, making it difficult for staff to attend both online and offline sessions. While some participants prefer online training for its flexibility, others prefer offline, hands-on training for better skill development.

Several participants suggest more frequent training sessions, with recommendations for Dakshata training every six months and drills every three months. Others propose prioritizing labor room training for new staff before advancing to LaQshya and Dakshata programs. Additionally, many prefer fixed training schedules, with suggested time slots such as late afternoon (3-4 PM) or during the morning shift when they are less busy.

Overall, the findings emphasize the need for structured, hands-on, and regularly scheduled training that aligns with healthcare workers' availability, ensuring they can fully benefit from these essential skill-building programs.

"I believe we should prioritize the labor room training for new staff, as it's the foundation. Also, refresher training is also needed for senior staff. Once that's solid, we can move forward with LaQshya and Dakshata. It would make the training process more effective."

Theme 2: Mothers stay in facility and space to walk around.

Subtheme 1: Mother Stay

The duration of stay of the patient varies depending on the mode of delivery and individual progress of recovery. According to the LaQshya program guidelines, the optimal duration of stay of the patient is planned to ensure adequate postpartum care and monitoring. For normal delivery, the optimal stay is typically 48 hours to allow observation of the mother and infant, early initiation of breastfeeding, and postnatal counselling. For C-section delivery, the optimal stay is typically 5-7 days to allow adequate recovery, wound care, and management of any potential complications.

The participants in our study highlighted variability in the duration of patient stay based on the mode of delivery and individual health conditions. For patients without comorbidities, discharge typically occurs within 48 hours. In cases of normal delivery, the stay may extend up to three days, while C-section patients generally require a longer stay of five to eight days to ensure proper recovery and post-surgical care. The interviews emphasized that the length of stay is flexible, with healthcare providers assessing each patient's stability before discharge to prioritize safety and well-being.

"(With a serious expression) The length of the patient stay really depends on the patients' overall health condition. Some need more time, while others who are stable can go home sooner."

Subtheme 2: Overcrowding -Shortage of beds and space

Facilities struggle with overcrowding, fewer beds, and a lack of sufficient space to ensure patient comfort. In accordance with guidelines set out by the LaQshya program, the space between two beds should not be less than 1.2 meters (4 feet) in order to facilitate easy movement by health workers and infection prevention control. In the case of a four-bed labor room, there should be a

minimum of 100 square meters of room for equipment and patient comfort. Facilities must also ensure that they provide at least one toilet per six beds and space should be readily accessible, clean, and well-maintained. Corridor width must not be less than 2.5 meters in order to make it easy for staff to move and push stretchers.

In our study, a great majority of respondents pointed out key challenges of overcrowding due to poor spacing at their respective hospitals, especially at labor rooms and patient wards. Most respondents explained instances of crowding, with some facilities receiving high-risk mothers prior to giving birth, with the result of insufficient beds and heightened stress among staff.

"In our facility, we admit high-risk mothers, often from tribal areas- a week before their delivery. This increases the workload significantly and creates even more stress, especially as the beds get overcrowded."

Subtheme 3: Not enough toilets in labor room and wards

The facilities are seriously challenged to have proper toilet facilities for mothers, which affects hygiene, privacy, and patient comfort. Moreover, the toilets should be located in close proximity to patient care units, particularly labor rooms and postnatal wards, to ensure safe and easy access for mothers. For each mother-birth companion and visitors are there, more than 300 mothers are in CEmONC building 900 people use the toilet.

In our study, the majority of participants brought out the shortcomings of toilet facilities in their health facilities. Some patients reported that they had one toilet in the labor ward or limited shared toilets for a large number of patients, which made it difficult to maintain hygiene and protect the patients' privacy. Though some facilities had proper toilets, they lacked some facilities for patient attendants.

"We don't have enough toilet facilities. There is only one toilet in the labor room."

Subtheme 4: Where my mom will stay? Where she will eat?

Facilities face challenges in accommodating the nutritional needs of birth companions, which can impact their comfort and ability to support mothers effectively. According to best practices in maternal care, ensuring the well-being of birth companions is crucial, as they play a vital role in providing emotional and physical support to mothers during labor and postpartum recovery. While the LaQshya program does not mandate food provision for birth companions, creating supportive environments like canteen in the facility that address their basic needs can enhance overall maternal care experiences.

In our study, several participants reported that while food was consistently provided to patients, no provisions were made for their accompanying attendants. Some facilities mentioned offering food only to specific groups, such as tribal patients.

"Food isn't provided to all attendees, except for tribal patient birth companions." (the hospital receives patients from tribal area)

Subtheme 5: General lift shared by all

Facilities face considerable challenges in ensuring exclusive lift access for patients, especially in maternity care settings. According to the standards set by the LaQshya program, healthcare facilities are supposed to provide an exclusive patient lift to ensure the safe and effective movement of mothers, especially in cases of emergencies. Exclusive lifts are crucial for labouring mothers, postnatal patients, and patients requiring immediate medical attention, thus reducing delays and improving the overall quality of patient care.

During our studies, some of the participants mentioned the lack of patient lifts within their facilities. Others mentioned only having general lifts, which are shared with visitors, exclusive lift for mothers not available. Hence becoming a hindrance to prompt transportation and infection control. Others pointed out the total lack of lift facilities, where patients have to use stairs, a case that can be quite challenging for labouring mothers or mobility-impaired patients.

"We don't have a lift exclusive for mothers when food is transported by lift to each floor it is difficult to shift mothers in an emergency."

Subtheme 6: Not enough space in labor ward, Mom not able to walk

Facilities face challenges in providing designated walking spaces for mothers, which is essential for ensuring comfort, mobility, and safe recovery during the perinatal period. According to LaQshya program guidelines, healthcare facilities should have walking space with a minimum width of 2.5 meters to facilitate smooth movement for patients, staff, and stretchers. Dedicated walking areas are crucial in labor wards and postnatal units to allow mothers to move freely, promoting better circulation and overall well-being.

In our study, several participants reported the absence of separate walking space for mothers in their facilities. Some facilities required mothers to use general waiting areas, which compromised privacy, increased the risk of infections, and hindered smooth movement for both patients and healthcare staff.

"We don't have separate walking space for patients. Patients usually use the waiting area for walking. "The cots are placed very close.

Theme 3: Manpower

Subtheme 1: life is tough/ overburden/night duties difficult

In this Study highlights a critical shortage of LaQshya-trained staff in healthcare facilities, leading to workload and difficulty in maintaining quality care. Many participants reported that only a small number of staff are trained with some facilities having just one or two trained staff handling multiple responsibilities.

Most of the respondents emphasized that the lack of manpower affects workflow, making it hard to maintain registers, ensure infection control and provide continuous patient care. Additionally,

long working hours, limited days off, and rotational shifts further contribute to exhaustion and staff dissatisfaction.

"We don't have enough staff. The ANM and Maternal staff were promoted and moved to other facilities. In the morning shift, we manage, but it gets really tough in the afternoon and night shifts"

Subtheme: 2 No day off. working continuously

Staff are supposed to get a day off after every five days of work, but because there aren't enough people, they end up working 10 days straight without a break. This makes them tired, stressed, and overworked, affecting both their well-being and the care they provide. Many feels burned out and believe that hiring more staff would help share the workload and allow them to take proper breaks.

"According to the government order, we're supposed to get one day off for every five days of work, but because we're in manpower shortage, we don't get that. Right now, we're working 10 days straight before getting a single day off, and that's really taking a toll on us (work and off balance)"

Subtheme 3: Trained staffs are over burdened

The qualitative findings indicate a significant over-reliance on LaQshya-trained staff, leading to workload imbalances, burnout, and stress among healthcare workers. Participants shared concerns about insufficient trained personnel, especially during night shifts and emergencies, where the few available staff bear the entire burden of patient care. This creates mental and physical exhaustion, making it challenging to maintain high-quality maternal healthcare services.

Most of the participants mentioned that freshers take a long time to be trained making doctors prefer the experience staff in labor room and operation theatres further increasing the workload on trained staffs. In some cases, trained staff members have been unable to take emergency leave due to the constant demand for their expertise. Participants suggested recruiting more staff and providing continuous training to reduce dependency on a few individuals and ensure a more balanced workforce.

"The over-reliance on trained staff is another issue. We have so few trained personnel, and the others depend on them. During emergencies, it becomes overwhelming for those trained staff members, and the stress is palpable"

Subtheme 4: Why I attended LaQshya training? all work pushed on me

The majority of participants expressed concerns about the increasing workload and stress due to staff shortages. Some reported struggling to keep up with responsibilities, especially during emergencies. The lack of sufficient manpower forces staff to take on extra duties, and the workload often carries over to the next shift. Some participants mentioned feeling emotionally drained, overthinking maternal deaths, and experiencing stress even after duty hours.

Several participants also highlighted admitting high-risk mothers further increases stress, as overcrowding and patient management become challenging. One participant expressed regret over attending training, as it resulted in heavier responsibilities without additional support, making it difficult to take leave, even in emergencies. Despite the challenges, they still have an interest in working in the labor ward but feel overburdened. They express that learning LaQshya and Dakshata felt exciting at first, but now they question the fairness of the workload distribution.

"Laughs nervously. I was excited about learning LaQshya and Dakshata, but after learning, it's all on us. Now, I'm thinking, why did I even attend the training? I haven't been able to take a leave in emergencies. It's been a burden for the last six years. I'd suggest recruiting or training more staff to lighten the load"

Subtheme 5: Ignored voice of healthcare workers (Unheard Pleas of Healthcare Workers)

In this study, participants expressed frustration and disappointment over their concerns about staff shortages being dismissed by higher authorities. Despite repeated attempts to raise the issue—even with ministers and government officials—their voices remain unheard, leaving them feeling demoralized and powerless. The lack of acknowledgment and action on their concerns adds to their stress and dissatisfaction, reinforcing the need for better communication and responsiveness from decision-makers.

"When we try to bring up the issue of staff shortages with higher officials, they just shut us down, saying, 'Don't speak about manpower shortage. (voice of healthcare person)' It's demoralizing."

Subtheme 6: We help each other (Shared responsibilities and teamwork/ Balancing work through support)

The majority of the participants highlighted how staff members assist each other in managing daily tasks and emergencies despite workforce shortages. Many participants shared that they rely on teamwork, with doctors, postgraduates, and associates stepping in to help when needed. Some staff members mentioned that there are dedicated workers for sanitation and sterilization, but others expressed frustration over having to handle additional tasks beyond their primary duties.

Participants highlighted how staff members assist each other in managing daily tasks and emergencies despite workforce shortages. Many participants shared that they rely on teamwork, with doctors, postgraduates, and associates stepping in to help when needed. Some staff members mentioned that there are dedicated workers for sanitation and sterilization, but others expressed frustration over having to handle additional tasks beyond their primary duties. The overall sentiment among participants is that while teamwork plays a crucial role in sustaining operations, the existing shortage of trained personnel increases the burden on staff, making it harder to manage workloads effectively.

"(With a tired expression) We work two shifts a day, with two duty staff members per shift. So, four duty staff members in total each day. In terms of assistance, we rely on Postgraduates and Associates. During emergencies, we get help from the Chief Doctors and other duty doctors. But honestly, I do feel there's a shortage of manpower, which leads to a higher workload and burnout"

"People don't speak Tamil getting consent is a problem? For me no issue I use google translator"

After the analysis it shows Healthcare workers face significant challenges in communicating with patients who speak different languages, particularly non-Tamil-speaking individuals. Many participants highlighted that language barriers create difficulties in obtaining consent, explaining medical procedures, and providing clear instructions to patients.

To overcome these challenges, doctors often assist with translation, and staff rely on family members or familiar persons to help bridge the gap. Some participants mentioned using tools like Google Translate, though they acknowledged its limitations. Others resort to body language and gestures to facilitate communication, but these methods are not always effective. Some healthcare workers expressed the need for basic language training to enhance patient care and minimize miscommunication.

"With a smile, we use Google Translate to help communicate, but it's still challenging, especially when getting consent. Sometimes I wish I could learn more languages "

Theme 4: Respectful maternity care

Subtheme 1: Mother's comfortable position

Under LaQshya guidelines, a mother's comfortable position during I and delivery is prioritized to ensure dignity, ease, and effective pain management. Women are encouraged to choose positions that provide comfort and facilitate I progress, such as upright, squatting, side-lying, or using birthing aids like pillows and stools. Healthcare providers should avoid unnecessary movement restrictions and support evidence-based positioning to improve maternal and foetal outcomes. Encouraging a mother's preferred birthing position, as recommended by LaQshya, enhances comfort, promotes natural I progression, and leads to better maternal and foetal outcomes.

In our qualitative study responses regarding mother-friendly birthing positions show that the majority of the participants emphasize patient comfort and adherence to preferred birthing positions.

"We always follow birthing position. It's crucial for their comfort and safety." – Nurse

While few suggest high caseloads and operational challenges as barriers to maintaining these standards, particularly in settings like the OT. Maintaining individualized birthing positions can be challenging due to space constraints, staff shortages, and time limitations, often resulting in mothers being confined to conventional positions that may not be ideal for their comfort and well-being.

"No preferred birthing position is followed." – Doctor

Subtheme 2: Enhancing Maternal- Infant bonding

Furthermore, starting breast feeding in the golden hour—the first hour after birth—is critical for ensuring the baby gets essential nutrients and immunity-boosting colostrum. Early breastfeeding encourages bonding and increases the baby's chances of healthy growth and development.

According to the LaQshya Guidelines, both skin to skin contact in labor room and early breastfeeding are critical practices for improving newborn survival, promoting maternal-infant bonding, and supporting better health outcomes in I rooms and maternity hospitals. These procedures are strongly recommended for providing optimal care to moms and newborns.

The majority of participants in our study reported following skin-to-skin contact and initiating breastfeeding soon after birth, highlighting a positive adherence to recommended practices for enhancing maternal-infant bonding.

"We always follow skin-to-skin contact right after birth. It's so important for bonding and the baby's health." – Nurse

"Within 45 minutes, breastfeeding is initiated." – Nurse

In our qualitative study, a few participants face challenges in implementing optimal maternal-infant bonding practices during transport. For instance, in certain cases, skin-to-skin contact is not followed, and instead, the baby is placed near the mother's leg during transfer, limiting immediate bonding opportunities. Additionally, due to high caseloads in operating theatres, immediate breastfeeding is sometimes delayed, impacting early initiation of breastfeeding practices.

"We don't follow skin-to-skin contact, but the baby will be placed near the mother's leg while shifting through the stretcher."- Nurse

"Due to case overload, we are not able to follow immediate breastfeeding in OT." – Nurse

Subtheme 3: Birth companion better train during AN period.

A positive childbirth experience is the right of every woman. Quality care includes good communication, respectful care of the woman in I, and providing her emotional and social support the way she wants. Women benefit from the presence of a companion during I as they get both physical and emotional support. A birth companion can be any person of a woman's choice who will provide one-to-one continuous support during I (based on LaQshya guidelines). They can be anyone from family (partner/friend/female relative) or society (community worker/doula) preferably someone who has gone through the process of I and childbirth.

The companion can also have a role in helping her communicate her choices and preferences to the healthcare provider, she may also keep the woman well informed about her progress of labor, help her cope with the labor pains by suggesting various non-pharmacological methods, provide back massage and help her in decision-making.

In our qualitative study analysis of the childbirth experience reveals significant insights into the role of continuous support provided by a birth attendant. The majority of participants affirm that having only one attendant from admission to discharge is crucial for ensuring consistent emotional and physical support throughout the childbirth process.

"One attendee is allowed per patient and they can stay with the patient from admission to discharge"

Counselling birth companions ensures they are well-prepared to offer comfort, reassurance, and practical assistance. They should be trained to recognize danger signs such as severe bleeding, prolonged I, high fever, convulsions, or reduced foetal movement, which require immediate medical attention. By being educated and emotionally prepared, birth companions enhance the

mother's sense of security, reduce stress and fear, psychological support and contribute to a safer and more positive childbirth experience.

"We provide counselling starting from the antenatal period, focusing on psychological support and danger signs"

In our qualitative study, some participants suggested that training birth companions from the third trimester can enhance their ability to provide effective emotional and physical support during I. Early training helps them understand their role in offering moral encouragement, assisting with pain relief techniques, and advocating for the mother's preferences. By equipping birth companions with the right knowledge and skills, this approach strengthens maternal care, promotes respectful childbirth practices, and ensures women feel supported and safe throughout their birthing journey.

"I think it would be really beneficial if we could start training the attendees from the third trimester. We could teach them about moral support, recognizing danger signs like hypothermia, and other important aspects of care. Using IEC materials or videos could be a great way to do this"

However, a lack of awareness about attendee roles, and inadequate supervision can hinder proper guidance. Additionally, excessive phone use and neglect of cleanliness may arise due to distractions or unclear expectations. To address these challenges, structured counselling during antenatal visits, clear communication of attendee roles, and visual reminders in I rooms can promote a more supportive and hygienic environment for mothers.

"I believe birth counselling should be provided to both patients and their attendees by Family Planning Counsellors. Additionally, some attendees may need reminders to stay attentive to their responsibilities, such as avoiding excessive phone use (like talking on the phone) and maintaining a clean environment."

Theme 5: Administration

Subtheme 1: LaQshya fund support care

The qualitative data suggests that LaQshya program funding is largely effective in supporting maternal healthcare services, with a structured system for resource allocation and reimbursement mechanisms. We procure necessary supplies based on availability, and in emergencies, we access additional resources from local CEmONC centres. Reimbursement mechanisms are in place for personal expenditures on program needs.

The majority of the participants expressed their satisfaction with the procurement process, indicating that necessary supplies are generally available. However, variability in communication between higher officials and frontline staff is evident, as some participants feel uninformed about the funding status.

"Our higher officials don't discuss the funding status with us. But we're satisfied with how they manage it. We compile a list whenever we need something, and the officials procure it based on availability and funds".

Subtheme 2: LaQshya is an eye opener

The LaQshya program has significantly enhanced the quality of care in labor rooms, particularly in infection control, biomedical waste management, and standardized protocols.

The majority of participants acknowledged noticeable improvements in labor room practices following the program's implementation. Key enhancements include improved infection control measures, better equipment management, and a strengthened understanding of established guidelines. These advancements have contributed to safer, more efficient maternity care services.

"I've gained so much more knowledge about the LaQshya practices. It's an eye-opener and I can see how much it improves the overall patient care."

Subtheme 3: I feel positive changes in implementation of LaQshya protocols

To implement LaQshya effectively standard operational protocols are maintained to ensure structured, evidence-based, and consistent care. These SOPs cover clinical protocols, infection prevention, respectful maternal care, infrastructure requirements, and patient safety measures. Regular training, monitoring, and assessment are conducted to maintain compliance and achieve improved maternal and neonatal health outcomes.

The majority of participants think that the LaQshya initiative has significantly improved labor room care, particularly in terms of infection control, biomedical waste management, updated protocols and access to advanced technology. Many participants are confident regarding standardized SOPs, stating that guidance on medicine usage, storage, and sterilizing methods has become clearer and more structured.

Many participants stated that LaQshya helped them learn new skills and use better medical equipment. They are more confident in following the improved regulations and protocols, which have made their work easier and more structured.

"(Nods thoughtfully) It has improved the quality of care in labor rooms and helped with the proper handling of biomedical waste. I've seen positive changes since its implementation".

Theme 6: I suggest to improve

The overall study suggests several challenges and recommendations related to staffing, training, equipment availability, and workload management in maternal healthcare settings. A key concern is the shortage of trained staff, leading to an increased workload, difficulty in taking leaves, and burnout. Suggestions include recruiting more staff, training PHC medical officers and nurses, and implementing a yearly rotational schedule to ensure balanced exposure and workload distribution.

Participants also highlight the need for better equipment, including defibrillators, ECG machines, and pulse oximeters, to improve patient care and ease manpower shortages. Delays in equipment repair and outdated tools further add to operational challenges.

Additionally, some recommend improving infrastructure, such as creating a waiting area for patient attendants and an entertainment space to enhance the hospital environment. One participant expresses frustration over the lack of practical implementation following the training, raising concerns about its effectiveness.

Overall, the findings emphasize the urgent need for increased staffing, better training implementation, modern equipment, and improved working conditions to enhance healthcare delivery and staff well-being.

"Laughs nervously. I was excited about learning LaQshya and Dakshata, but now I feel overwhelmed by the responsibility. Now, I'm questioning the value of attending the training. I haven't been able to take a leave in an emergency. It's been a burden for the last six years. I'd suggest recruiting or training more staff to lighten the workload."

IDI with sanitary supervisors and sanitary workers

To evaluate the existing infrastructure, staffing gaps and the strengths and challenges in healthcare facilities, In-Depth Interviews (IDIs) were conducted with sanitary workers and sanitary supervisors. This qualitative research approach provided detailed insights into challenges, resource availability, and operational inefficiencies. Questions focused on infrastructure adequacy, availability of cleaning supplies, staffing adequacy, challenges in maintaining hygiene, and perceptions of workload. Interviews were conducted in person at healthcare facilities, in the local language to ensure comfort and better responses. The transcripts were coded, and relevant themes were generated.

Table 7: Details of interview with Sanitary Staffs

	No interviewed	Average year of experience	Average age	Male: Female
Sanitary Supervisors	**27**	**4.8**	**34**	**8: 19**
Sanitary Workers	**47**	**8.8**	**40**	**0: 47**

AVERAGE NO OF SANITARY WORKERS PER SHIFT									
	Medical College			District hospital			Sub-District hospital		
Shift	In Labor ward	In CEmONC	In Hospital	In Labor ward	In CEmONC	In Hospital	In Labor ward	In CEmONC	In Hospital
Morning	2	21	147	1	4	19	1	3	11
Afternoon	1	9	43	1	2	7	1	2	3
Night	1	8	42	1	2	6	1	1	3

Theme 1: Biomedical waste management

Strengths:

- Optimal waste segregation, supported by the successful implementation of BMW colour coding.
- Adequate training provided to the staff in BMW processes, as indicated by the workers' familiarity and orientation with colour coding.

*SW 1: "We are all **trained in BMW**, we are oriented in colour coding"*

Theme 2: Inadequate number of staffs

Limitations:

- An inadequate number of staff, with allocation based on previously determined bed strength, leading to insufficient human resources.
- A shortage of workers per shift in labor wards, resulting in a single worker being responsible for multiple tasks, including mopping, which affects the frequency and quality of cleaning.

*S Sup 1: "We are allotted sanitary workers **based on bed strength which was given previously** so we have inadequate number of staffs"*

*SW 2: I am the **only worker** working here in **this shift** and also other wards, I can't do frequent mopping"*

Theme 3: Inconsistencies in the cleaning material

The interviews provided insights into the limitations and inconsistencies in the allocation and application of cleaning agents, which are critical for maintaining hygiene standards.

Limitations:

Materials allotted based on bed strength: Sanitation workers reported that the quantity of cleaning chemicals provided was insufficient, particularly when frequent mopping was required every two hours. Materials were also allotted based on bed strength.

*SW 3: "We are supplied only less chemicals, it **is not sufficient** if we mop, we mop every two hours **so we use less"***

Lack of uniformity in use: There was uncertainty among the staff regarding the appropriate quantity of cleaning materials to use. They mentioned relying on a single yellow and pink solution for all tasks, which they had to dilute according to supervisor guidance due to lack of specific instructions.

*SW 4: "We **don't know** where to use **how much to use** and all, we are supplied one yellow and pink solution…. we use whatever is given and **dilute according to supervisor guidance**"*

These findings highlight the need for better resource management, clear guidelines on the use of cleaning materials, and possibly an increase in the supply of necessary cleaning agents to ensure effective sanitation practices.

Theme 4: Worker welfare Challenges

Limitations:

Personal protective equipment shortage: Workers reported that they only receive gloves and masks when supplies are available, and sometimes they have to purchase these items with their own money.

*SW 5: "Gloves and mask we get **only when there is supply,** otherwise we don't use it……. Sometimes **we buy with our money"***

No defined leave policies: Sanitation workers expressed concerns about the lack of clear leave policies, which makes it difficult for them to take time off, as there are fewer workers available to cover their shifts.

SW 6: *"We **can't take weak off's** as only less people are there"*

Chapter - 5

Quantitative Findings

Objective - 1

RMC

Respectful Maternity Care:

Respectful maternity care – which refers to care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labor and childbirth (WHO) (14). Provision of respectful maternity care (RMC) is per a human rights-based approach to reducing maternal morbidity and mortality (21). RMC could improve women's experience of labor and childbirth address health inequalities, and result in a positive childbirth experience.

The theoretical foundation of Respectful Maternity Care (RMC) is based on the belief that all women have the fundamental right to receive dignified and respectful care during childbirth. Intrapartum mistreatment not only violates women's sexual and reproductive health rights but also serves as a significant barrier to public health (22).

While respectful maternity care (RMC) is a fundamental right for all women, research shows that certain vulnerable subgroups face significant barriers to accessing it. These groups include younger women, those with lower incomes, individuals with less education, women with physical challenges, HIV-positive women, and ethnic minorities (23). In addition to geographic, financial, and cultural obstacles to quality maternal healthcare, many women also encounter mistreatment in health facilities, which further deters them from seeking care.

Critical components of RMC:

The literature describes two types of Respectful Maternity Care (RMC) frameworks: (1) Disrespect and Abuse and (2) Rights-Based (15). These frameworks share overlapping themes and include elements aimed at implementing metrics to eliminate practices identified as disrespectful or abusive, as well as initiatives that promote healthcare systems focused on respectful care.

The first approach, Disrespect and Abuse, is based on two central frameworks that categorize aspects of care into domains or components (24) (25). These serve as indicators to help identify instances of disrespect and abuse within healthcare facilities, thereby informing the recognition of mistreatment during childbirth (25).

In contrast, Rights-Based frameworks have developed in response to the Disrespect and Abuse frameworks. These frameworks assert that RMC is not merely the absence of disrespect and abuse; it also encompasses elements of reproductive justice, human rights, social justice, and antiracism, which some frameworks define as freedom from bias and discrimination (15). Rights-based frameworks consider the broader social constructs and systems at play and emphasize wellness and thriving rather than solely focusing on issues of abuse or disrespect.

Both frameworks delineate categories, often referred to as "domains" or components, that serve as a foundational set of indicators for recognizing disrespect and abuse in facilities and for identifying mistreatment during childbirth.

RMC components in Disrespect and abuse frameworks include abuse, consent and privacy, discrimination and punishment, communication, and care environment. Whereas, RMC components in Right-based frameworks include freedom from abuse and violence, informed consent and shared decision-making, dignity, respect and privacy, equitable care, safety, and Effective, timely, quality care (15). Common themes include Freedom from abuse, consent, privacy, dignity, communication, safety, and justice.

Table 8: RMC domains

Domains	Operational definition
Freedom from abuse	Ensuring that women are not subjected to physical, verbal, or psychological abuse during maternity care. This includes preventing any form of violence, such as slapping, kicking, or verbal threats, and ensuring that care is provided without coercion or intimidation
Consent	Ensuring that women are not subjected to physical, verbal, or psychological abuse during maternity care. This includes preventing any form of violence, such as slapping, kicking, or verbal threats, and ensuring that care is provided without coercion or intimidation
Privacy	Maintaining confidentiality and ensuring that women have private spaces during care. This includes using curtains or partitions to maintain privacy during examinations and procedures

Dignity	Treating women with respect and kindness, ensuring their self-worth is upheld. This involves addressing women respectfully, involving them in decision-making, and respecting their cultural values
Communication	Effective and empathetic communication between healthcare providers and women. This includes clear explanations of procedures, listening to women's concerns, and providing emotional support
Safety	Ensuring that care is provided in a safe environment, minimizing risks to both mother and baby. This involves implementing safety protocols, maintaining clean facilities, and ensuring timely interventions
Justice	Ensuring equitable access to care, free from discrimination based on race, socioeconomic status, or other factors. This involves providing care without bias and addressing systemic inequalities

These themes have been incorporated into our tools, which were developed based on World Health Organization (WHO) guidelines for RMC and patient-centred maternity care tools.

Given the complex drivers of mistreatment during facility-based childbirth, reducing mistreatment and improving women's experience of care requires interventions at the interpersonal level between a woman and her healthcare providers, as well as at the level of the healthcare facility and the health system. Interventions should aim to ensure a respectful and dignified working environment for those providing care, acknowledging that staff may also experience disrespect and abuse in the workplace and/or violence at home or in the community.

One such intervention that is implemented to enhance beneficiaries' facility satisfaction visiting the health and provide Respectful Maternity Care (RMC) to all pregnant women attending the public health facility is the program LAQSHYA. It gives paramount importance to respectful maternity care.

Its guidelines clarify the procedures to be followed in the labor room (26). All employees were sensitized about respectful maternity care, which mainly involved empathetic communication with patients, explaining the procedure and further plan of management to both the patient and the patient's companion, and maintenance of the mother's privacy throughout the birthing process.

Mothers can choose their birth companion, freedom to pick a comfortable posture throughout labor, initiation of breastfeeding within one hour of birth, etc., are the key actions to be carried out during labor. Insistence on using the traditional lithotomy position for birth, routine use of induction and augmentation of labor without solid clinical justification, any verbal or physical abuse of pregnant women, etc., are instructed to avoid during labor (dos and don'ts) (26).

Sociodemographic characteristics of the mothers (Table 9):

- A total of 908 mothers were interviewed on the respectful maternity care provided in their hospitals. The average age of the respondents is 25.2 years, and they are likely between 21.1 and 29.3 years old.
- The majority of the mothers hold a bachelor's degree (32.5%) followed by higher secondary school (31.9%) and high school (21.4%). The very low percentage of the population is illiterate (1.0%), indicating a relatively high level of education.
- Most are family heads (79.1%), followed by those employed in the private sector (13.8%), Daily wage (5.4%), and the Government sector (1.8%). The findings suggest most of the respondents admitted in these facilities hold primary responsibility for their households, and work in the private sector and as a daily wage compared to the government sector.
- The majority of the respondents are identified as Hindu (89.8%), followed by Christian (5.4%) and Muslim (4.8%). In terms of caste, the highest representation is from Other Backward Classes (OBC) (42.1%), followed by Scheduled Castes (SC) (38.5%), Open Category (OC) (17.3%), and Scheduled Tribes (ST) (2.1%).

Health care details of the mothers:

- 50.4% of mothers delivered by C-Section (50.4%) and 49.6% of mothers delivered by normal delivery (49.6%).
- There is almost equal distribution of multiparous (50.7%), and primiparous (49.1%) women in our study.
- 3.4 % had experienced child loss, whereas 96.6% had not. Though the loss is relatively low, there is a need to provide adequate neonatal care to the babies born to these individuals.

- The average hospital stay is 2 to 8 days, with some mothers having shorter stays, while others needed extended hospitalization.
- The average distance from home to the facility was 21.1 ± 19.1 km, suggesting that some mothers travelled significant distances to access care.
- 30% of mothers were referred from another hospital, while 70% directly accessed the facility.
- The average travel time to the facility was 34.5 ± 25.6 minutes, with variations based on distance and mode of transport.
- Most of the respondents availed their vehicle (28.7%), 27.5% used 108 ambulances, 25% used government bus, 18.6% used auto to reach the facility. There is a need to enhance the uptake of government transport services like JSSK vehicles and 108 ambulances.
- According to the LaQshya indicator for beneficiary satisfaction, which aims for at least 80% satisfaction among beneficiaries, there is a remarkable satisfaction rate of 96.5% at LaQshya-certified facilities. This high level of satisfaction may be attributed to various factors, including the quality of care and the services provided.
- When questioned whether they will recommend this hospital to others, 93.8% of respondents told they would recommend these facilities for treatment, indicating their trust in the care provided.

Table 9: Sociodemographic characteristics of study participants (N=908)

Parameters	Summary Statistics
Age	25.2 ± 4.1
Education level	
Illiterate	9 (1.0%)
Primary School	51 (5.6%)
High School	194 (21.4%)
Higher Secondary School	290 (31.9%)
Bachelor's Degree	295 (32.5%)
Master's Degree	69 (7.6%)
Occupation	
Head of the Family	718 (79.1%)
Daily Wage	49 (5.4%)
Private Sector	125 (13.8%)
Government Sector	16 (1.8%)

Religion	
Hindu	815 (89.8%)
Islam	44 (4.8%)
Christian	49 (5.4%)
Caste	
SC	350 (38.5%)
ST	19 (2.1%)
OBC	382 (42.1%)
OC	157 (17.3%)
Type of Delivery	
Caesarean Delivery	458 (50.4%)
Normal Delivery	450 (49.6%)
Number of children	
Primiparous	446 (49.1%)
Multiparous	462 (50.9)
Have any of your children passed away	
Yes	31 (3.4%)
No	877 (96.6%)
Have you received treatment from this facility previously?	
Yes	146 (16.1%)
No	762 (83.9%)
Hospital stays (Days)	6 ± 4
Distance between the facility and your house (Kms)	21.1 ± 19.1
Were you referred by any other hospital for delivery?	
Yes	272 (30.0%)
No	636 (70.0%)
Travel time to reach the facility from your house or other facility(mins)	34.5 ± 25.6
Mode of Transport	
Own Vehicle	261 (28.7%)
Government Bus	228 (25.1%)
Auto	169 (18.6%)
108 Ambulance	250 (27.5%)
Are you aware of the free 108 ambulance facility for delivery	
Yes	834 (91.9%)
No	74 (8.1%)
Are you satisfied with the services provided by this facility?	
Yes	876 (96.5%)
No	32 (3.5%)
Do you refer this facility to your relatives or friends?	
Yes	852 (93.8%)
No	56 (6.2%)

Domain 1: Dignity and respect

Many women experience disrespectful and abusive treatment during childbirth in facilities worldwide. Such treatment not only violates the rights of women to respectful care but can also threaten their rights to life, health, bodily integrity, and freedom from discrimination. To avoid this, Health-care providers at all levels require support and training to ensure that childbearing women are treated with compassion and dignity. This domain addresses questions related to verbal abuse, physical abuse, discrimination, and non-dignified care.

- **The time taken for the doctor to attend to the respondent is as follows:** 84.4% of women were seen within 10 minutes, while 9.9% were attended within 30 minutes, indicating prompt responses by the healthcare provider. Only 3.6% of women waited for one hour, and 2.1% waited for more than two hours. The small percentage of long waiting times suggests potential limitations in patient care, mainly since these women are in their perinatal phase, which is a critical period during labor.
- **Verbal and physical abuse: A** Significant proportion of mothers never experienced verbal (92.1%) or physical abuse (99.3%), such as being shouted at, scolded, or pushed. However, 8.6 % of women experienced one or other forms of physical and verbal abuse, which is a completely unethical act and it is against the LaQshya recommendations on respectful maternity care.
- **Discrimination in Postnatal care:** 98.1% of mothers reported that they did not feel discriminated against based on caste, religion, wealth, disability, or social status. However, 1.9% of mothers did experience some form of discrimination. This small percentage of mothers who faced discrimination may affect both the follow-up care they receive at this facility and their overall satisfaction with the services provided.
- **Respectful and courteous treatment of postnatal mothers:** 90.1% of mothers were treated respectfully all the time, 6.4% most of the time, 2.5% a few times and 8.4% never. Which indicates that a few participants had negative experiences.

Table 10: Women's response on Dignity and Respect provided at the facilities (N=908).

Parameters	n (%)
Time is taken by the doctor to attend to you after you arrive in the facility	
Within 10 mins	766 (84.4%)
Within 30 mins	90 (9.9%)
Within 1 hour	33 (3.6%)
More than 2 hours	19 (2.1%)
Did you feel the doctors, nurses, or other health providers shouted at you, scolded, insulted, or threatened you?	
No, never	836 (92.1%)
Yes, once	23 (2.5%)
Yes, a Few times	33 (3.6%)
Yes, every time	16 (1.8%)
Did you feel the doctors, nurses or other health providers beat/pushed you?	
No, never	902 (99.3%)
Yes, once	6 (0.7%)
During your time in the health facility, were you treated differently because of any personal attribute like your age, marital status, number of children, your education, wealth, religion/caste? Your connection with the facility, differently abled status, or something like that?	
No, never	891 (98.1%)
Yes, once	12 (1.3%)
Yes, a Few times	1 (0.1%)
Yes, Every time	4 (0.4%)
Were you treated respectfully and courteously by the doctors and hospital staff?	
Yes, all the time	818 (90.1%)
Yes, Most of the time	58 (6.4%)
Yes, a Few times	23 (2.5%)
No, never	9 (1.0%)

Domain 2: Communication and Autonomy

Communication and autonomy are the essential components of RMC, ensuring that postnatal mothers feel informed and respected and have choices and the opportunity to make decisions.

Effective communication between maternity care providers and women in labor, using simple and culturally acceptable methods, is recommended. Health care providers must also explain procedures, risks, and options in the language the patient understands. According to the WHO's

toolkit for intrapartum care designed to promote positive childbirth experiences, effective communication includes several key practices:

- Introducing themselves to the woman and her companion and addressed the woman by her name.
- Providing the woman and her family with the necessary information clearly and concisely, using the language they speak. This should involve avoiding medical jargon and incorporating pictorial and graphic materials when necessary to explain processes or procedures.
- Respecting and responding to the woman's needs, preferences, and questions with a positive attitude.
- Supporting the woman in understanding that she has choices and ensuring that her decisions are acknowledged and respected.
- Clearly explaining procedures to the woman and obtaining verbal, and when appropriate, written informed consent for pelvic examinations and other procedures, etc.

These practices are essential for effective communication during labor. To measure the communication effectiveness, questions related to women's views on specific aspects of their doctor's communication with them during labor were included, such as "Did the service provider greet you and introduce you by your name", and "Did the doctors or nurses inform you of the examination findings in simple language you understand"? Etc.

Autonomy means acknowledging women's rights to make informed choices regarding their healthcare. This encompasses the right to provide informed consent or to refuse medical interventions. Healthcare professionals should engage in clear communication and involve women in the decision-making processes related to their care and that of their newborns. The World Health Organization's operational guidelines on respectful maternity care highlight the significance of respecting women's autonomy and dignity during childbirth. This includes delivering care in a way that aligns with women's preferences and choices.

- **Service Provider greetings and personal introduction:** 90.2% of women reported that the doctors, nurses, and other providers greeted and introduced themselves by their names. 7.4%

experienced it most of the time, but 2.0% experienced it only a few times. Most of them said they were called by name while giving tablets. Service providers should understand that greeting patients with a smile helps to build trust between them

- **Informed consent:** Informed consent is a fundamental patient right, where the health care provider should communicate the nature, risks, and benefits of this procedure, which helps the patient to make informed choices. Consent must be given voluntarily, without any coercion or under influence. 87.6% of the mothers were asked for consent all the time before undergoing procedures and examinations. 6.7% and 2.4% of mothers were asked for consent most of the time and a few times. Whereas 3.3 % of women never asked for consent, which could lead to dissatisfaction in care.
- **Use of simple language:** 84.6% of the women reported that their examination findings were explained to them in simple language all the time. In contrast, 4.4% of the women stated that their findings were never explained in a way they could understand. To address this communication barrier, alternative methods such as using a translator or providing discharge summaries in the local language could be beneficial.
- **Behaviour of healthcare provider:** While most of the mothers had a positive experience (80.6%), 14.8 % reporting occasional or no respectful behaviour towards them and their attendees, indicates a gap that needs urgent attention.
- **Awareness of birthing position and Skin-Skin contact:** Despite LaQshya's emphasis on RMC, significant proportion of mothers **(**59.6%) of mothers were never oriented about their choice of birthing positions during their hospital stay and 56.6% were not aware of skin-skin contact, which is a recommended to practice to ensure comfortable birthing and for promoting newborn health and bonding. A zero-separation policy is recommended by LaQshya to ensure continuous skin to skin contact between mother and baby from birth till discharge.
- **Display of signage system and IEC boards**: The LaQshya guidelines emphasize the importance of educating patients and visitors through the display of appropriate Information, Education, and Communication (IEC) materials, particularly those related to breastfeeding practices, kangaroo mother care, and family planning. These materials should be placed appropriately, such as in the waiting and circulation area, to maximize visibility and outreach.

To ensure effective dissemination of information, relevant IEC materials should be displayed in key locations, including the admission area, labor room, maternity OT, as well as antenatal (ANC) and postnatal (PNC) wards. In this study setting, the most commonly seen boards were breastfeeding (92.2%), family planning (71.3%), and Kangaroo mother care (55.4%). Awareness on other programs like SUMAN was less visible (26.5%). These boards were most frequently seen at the entrance (66.1%), Postnatal ward (65.4%) and labor ward (50.1%). Less frequently seen in other places such as maternity OT (17.8%) and special newborn care unit (8.4%), which are critical care zones, where targeted education is crucial.

- **Understanding of information displayed in the information boards:** Majority found the pictures and information to be clear. 13.2% felt either picture is not clear, take time to understand, and couldn't read and understand, efforts should be made to make it clearer and more understandable.

Table 11: Women's response on Communication and Autonomy practices in the facility (N=908).

Parameters	n (%)
Did the service provider greet you and introduce you with your name?	
Yes, all the Time	819 (90.2%)
Yes, Most of the Time	67 (7.4%)
Yes, Few Times	18 (2.0%)
No, never	4 (0.4%)
Did the doctors, nurses, or other staff at the facility ask your permission/consent before doing procedures and examinations on you by explaining them?	
Yes, all the Time	795 (87.6%)
Yes, Most of the Time	61 (6.7%)
Yes, Few Times	22 (2.4%)
No, never	30 (3.3%)
Did the doctors or nurses inform you of the examination findings in simple language you understand?	
Yes, all the Time	768 (84.6%)
Yes, Most of the Time	77 (8.5%)
Yes, Few Times	23 (2.5%)
No, never	40 (4.4%)
Did the doctors, nurses' other personnel in the hospital behave well with you and your attendee?	
Yes, all the Time	732 (80.6%)

Yes, Most of the Time	42 (4.6%)
Yes, Few Times	114 (12.6%)
No, never	20 (2.2%)
Did the doctors, nurses, and other personnel in the hospital answer your questions correctly?	
Yes, all the Time	827 (91.1%)
Yes, Most of the Time	39 (4.3%)
Yes, Few Times	19 (2.1%)
No, never	23 (2.5%)
Are you oriented about birthing positions during normal delivery?	
Yes, Few Times	367 (40.4%)
No, never	541 (59.6%)
Were you provided breastfeeding counselling during your admission to the hospital and after childbirth?	
Yes, all the Time	685 (75.4%)
Yes, Most of the Time	74 (8.1%)
Yes, Few Times	42 (4.6%)
No, never	107 (11.8%)
Are you oriented about skin-skin contact after birth?	
Yes, all the Time	320 (35.2%)
Yes, Most of the Time	45 (5.0%)
Yes, Few Times	29 (3.2%)
No, never	514 (56.6%)
Did information boards placed in the hospital, help you to reach places?	
Yes, all the Time	672 (74.0%)
Yes, Most of the Time	82 (9.0%)
Yes, Few Times	47 (5.2%)
No, never	107 (11.8%)
Have you seen the following information boards/ signages?	
Suman	241 (26.5%)
Breast Feeding	837 (92.2%)
Family Planning	647 (71.3%)
KMC	503 (55.4%)
Other Programs	633 (69.7%)
where have you seen those information boards?	
Entrance	600 (66.1%)
Waiting hall	419 (46.1%)
Labor Word	455 (50.1%)
Maternity OT	162 (17.8%)
A.N Ward	322 (35.5%)
P.N Ward	594 (65.4%)
S.N.C. U	76 (8.4%)

Others	65 (7.2%)
Have you been able to understand the information provided in the information boards?	
Pictures and information's are clear	788 (86.8%)
Takes much time to understand	53 (5.8%)
Pictures are not clear	47 (5.2%)
Could not read and understand	20 (2.2%)
Did the doctors or nurses clearly explain or give instructions about surgery /procedure during surgery or after discharge?	
Yes, All the Time	733 (80.7%)
Yes, Most of the Time	70 (7.7%)
Yes, Few Times	29 (3.2%)
No, never	76 (8.4%)

Domain 3: Supportive care:

Supportive care domain emphasizes the provision of psychological and social support to pregnant mothers to manage the challenges during delivery.

Presence of birth companion: Women are encouraged and counselled to have a birth companion of their choice present during labor and childbirth. The World Health Organization (WHO) advocates for the presence of a chosen companion of choice during labor and childbirth. Labor companions support women by improving communication with healthcare providers, advocating for their wishes, and ensuring respectful care. They assist with non-pharmacological pain relief, encourage movement, provide physical comfort, enhance skin to skin contact and breastfeeding for the newborn and offer continuous emotional support. Additionally, they help prevent mistreatment during childbirth.

However, a significant number of respondents—56.1%—reported that no birth companion was allowed with them during this time. This finding contradicts the LaQshya facility level target, which aims for 90% of deliveries to be attended by a birth companion. In contrast, only 29.3% of women reported having a birth companion (specifically a female relative) present during both labor and after giving birth, providing support to the mother and infant. Additionally, 8.0% had a companion present full-time during labor, while 6.6% had a companion with them for a few hours after giving birth.

Verbal encouragement and Reassurance: Providing Verbal encouragement and reassurance to patients indicates a strong emphasis on social support and improves their childbirth experience. In

terms of supportive care, provided at LaQshya certified facilities, 86.3% of women reported receiving verbal encouragement or reassurance from staff all the time during labor. While 5.4% experienced it most of the time, and 4.2% a few times. 4.1% have never received verbal encouragement from their care provider, which might affect their level of trust towards them.

Attention: 88.2% of women felt that healthcare staff paid attention to all their needs, all the time. This high level of responsiveness and attention from health care providers indicates effective communication and support provided at these facilities (Table 12).

Table 12: Women's response to Supportive Care provided in the facility (N=908).

Parameters	n (%)
During your labor, did the staff verbally encourage or reassure you?	
Yes, All the Time	784 (86.3%)
Yes, Most of the time	49 (5.4%)
Yes, a Few Times	38 (4.2%)
No, never	37 (4.1%)
Was any birth companion (female relative) allowed to be with you during labor and childbirth?	
Yes, During Labor and after giving birth, helped the mother and infant	266 (29.3%)
Yes, Full Time During Labor	73 (8.0%)
Yes, a Few Hours after giving birth	60 (6.6%)
No, never	509 (56.1%)
When you needed help, did you feel the doctors, nurses, or other staff at the facility paid attention?	
Yes, All the Time	801 (88.2%)
Yes, Most of The Time	65 (7.2%)
Yes, Few Times	26 (2.9%)
No, never	16 (1.8%)

Domain 4: Privacy, confidentiality and trust:

This domain focuses on maintaining confidentiality, protecting privacy and improving trust between the patient and the health care provider.

Privacy - Ensures that women are treated with dignity, and their personal space is given during care. It also includes, examining or performing procedure in a private space to avoid exposure.

Confidentiality - It is about protecting women's personal and medical information from unauthorised person.

Trust - It is built through respectful communication, being transparent with the patient and adherence to confidentiality and privacy principles.

The LaQshya facility ensures privacy and confidentiality to every patient, especially of those conditions having social stigma, and also safeguards vulnerable groups. Adequate visual privacy (using screens or partition from three sides of the delivery table or cubicle) is provided at every point of care, and **Confidentiality** of patients' records and clinical information should be maintained.

Privacy during examination: 86.0% of women reported that screens or drapes were used almost all the time. 4.4 % said drapes were used most of the time, 1.3% said it is done a few times. While 8.3% says no drapes or screens were used during their first examination. Even during examination in the labor room, 12.6% were never covered up with a cloth or blanket or screen and they were exposed. This lack of coverage can lead to vulnerability of patients and can also make women anxious.

Confidentiality: Higher level of confidentiality is maintained (93.8%), but even a minor breach (2.2%) can undermine trust.

Table 13: Women's response towards maintaining Privacy and Confidently, Trust in the facilities(N=908).

Parameters	n (%)
During your first examination, were there screens or drapes?	
Yes, All the Time	781 (86.0%)
Yes, Most of the Times	40 (4.4%)
Yes, Few Times	12 (1.3%)
No, never	75 (8.3%)
During examinations in the labor room, were you covered up with a cloth or blanket or screened with a curtain so that you did not feel exposed?	
Yes, All the Time	651 (71.7%)
Yes, Most of the Times	47 (5.2%)
Yes, Few Times	96 (10.6%)
No, never	114 (12.6%)
Do you feel like your health information was or will be kept confidential at this facility?	
Yes, All the Time	852 (93.8%)

Yes, Most of the Times	28 (3.1%)
Yes, Few Times	8 (0.9%)
No, never	20 (2.2%)

Domain 5: Facility and environment

Facilities that maintain a clean environment and hygienic conditions are more likely to deliver respectful care, enhancing patient satisfaction levels. Factors such as water, sanitation, hygiene, and comprehensive infection prevention and control measures are recognized as critical quality issues influencing the patient care experience. For example, the cleanliness of women's dedicated toilets in the maternity unit is seen as a vital aspect of respectful care. It is essential to establish a supportive environment—including physical resources, human resources, policies, and guidelines—to ensure high-quality care for mothers and newborns.

General cleanliness and hygiene: Concerning facility and environment, more than 70% of the respondents responded that the cleanliness of the building, corridor, premises, bed sheets, patient wards, and rooms were clean, while 19.8% found it very clean.

Labor ward cleanliness: Labor rooms were maintained clean (70.5%), majority of the women were provided with a Steel cot, bed, and bedsheet (69.1%), which was rated clean (71.9%) and changed daily (51.0%). Less than 3% of women reported very dirty and never cleaned.

Water and sanitation facilities: Majority of the respondents reported that access to running water supply, functional WC, and hand-washing facilities in toilets (82.2%), 13.3% reported most of the time, 4.1 % few times, and 0.4% never.

71.7% of respondents indicated that they had access to a safe and clean water supply around the clock, while 16.0% stated that they never had such access. This is a fundamental necessity that should be available to everyone in their daily lives, especially in hospitals where health is a critical issue.

Toilets were cleaned thrice a day by (21.6%), twice a day (46.7%), once (18.4%), and not at all (13.3%). Unclean facilities and poor maintenance can cause discomfort, ill health, and distress to pregnant women.

Spacing and bed sharing:

Most of the respondents (86.1%) found the space provided for the mother and the baby was adequate, and 14% of the mothers reported it was inadequate, which is a negative experience for patient comfort.

Majority (98.9%) did not have to share beds, while 1.1% reported being forced to share their bed with others. It helps to maintain privacy.

Table 14: Descriptive Statistics of women's responses to Facility and environment (N=908).

Parameters	n (%)
General cleanliness/hygiene of the building, corridor, and premises	
Very Clean	180 (19.8%)
Clean	661 (72.8%)
Dirty	48 (5.3%)
Very Dirty	19 (2.1%)
Cleanliness of patient, wards/rooms	
Very Clean	189 (20.8%)
Clean	695 (76.5%)
Dirty	21 (2.3%)
Very Dirty	3 (0.3%)
Cleanliness of bed sheets	
Very Clean	156 (17.2%)
Clean	663 (73.0%)
Dirty	66 (7.3%)
Very Dirty	23 (2.5%)
Changing of bed Sheets	
Daily	463 (51.0%)
Once in two days	176 (19.4%)
Very rarely	196 (21.6%)
No never	73 (8.0%)
Cleanliness of labor ward /room	
Very Clean	257 (28.3%)
Clean	640 (70.5%)
Dirty	9 (1.0%)
Very Dirty	2 (0.2%)
How was your labor bed	
Steel cot, bed, and bedsheet	627 (69.1%)
Steel cot with bed	78 (8.6%)

Steel cot only	194 (21.4%)
No cot	9 (1.0%)
Is labor bed and bedsheet cleanliness maintained?	
Very Clean	223 (24.6%)
Clean	653 (71.9%)
Dirty	27 (3.0%)
Very Dirty	5 (0.6%)
Availability of running water, functional WC, and hand -washing facilities in toilets	
Yes, all the time	746 (82.2%)
Yes, most of the time	121 (13.3%)
Yes, few times	37 (4.1%)
No, never	4 (0.4%)
Availability of 24/7 safe and clean supply of water	
Yes, all the time	651 (71.7%)
Yes, most of the time	76 (8.4%)
Yes, few times	36 (4.0%)
No, never	145 (16.0%)
How many times a day, toilets were cleaned	
Thrice	196 (21.6%)
Twice	424 (46.7%)
Only once	167 (18.4%)
Not even once	121 (13.3%)
Do you find the amount of space/bed provided for the mother and baby to stay adequate?	
Adequate	782 (86.1%)
Not adequate	126 (13.9%)
Have you been forced to share your bed with other mothers in the room?	
No	898 (98.9%)
Yes	10 (1.1%)

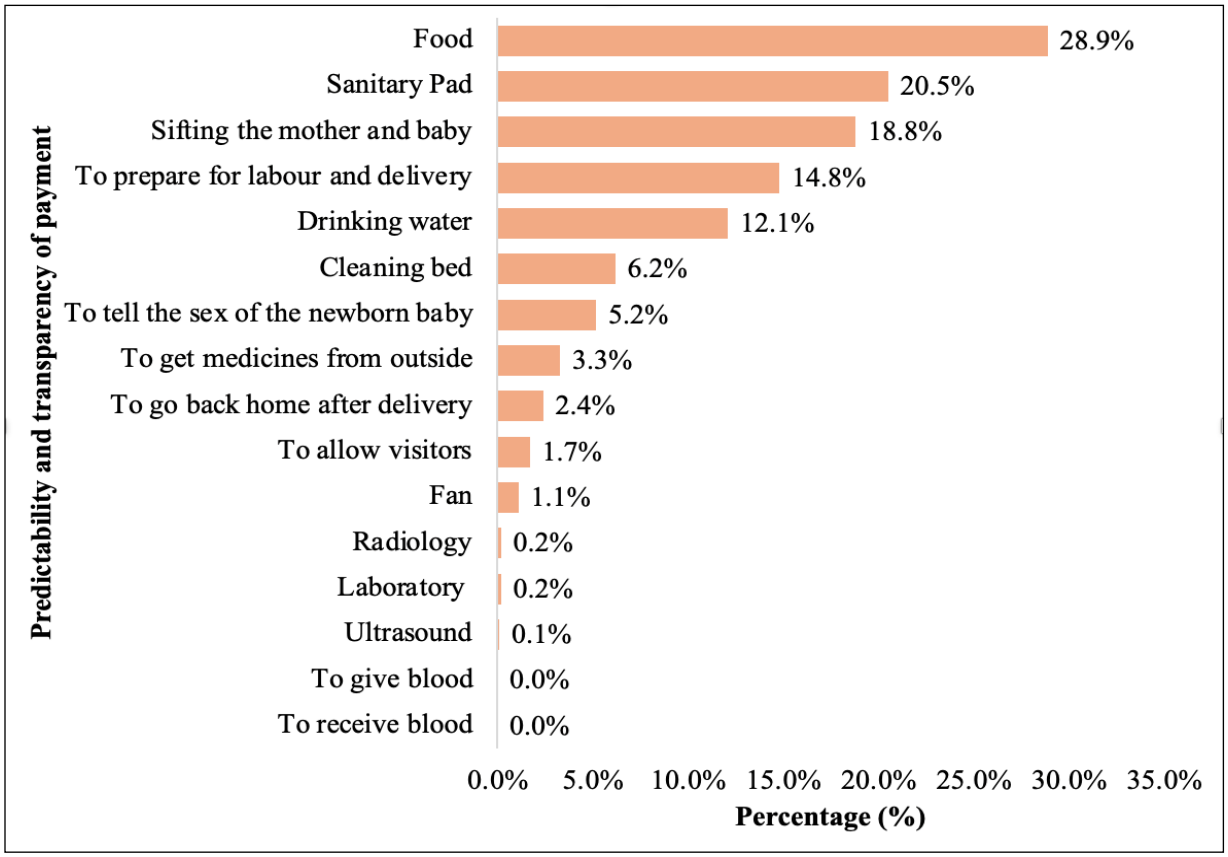
Domain 6: Predictability and transparency of payment

Out of Pocket Expenditures (OOPE) on drugs, diagnostics, including demand by the staff for gratuitous payment by families in celebration of the baby's birth need to be discouraged as one of the outcomes for the maternal and newborn health. This domain features a single question aimed at assessing out-of-pocket expenses that may be incurred either as bribes or as extra costs.

Nearly 30% of women spent money on food, while 20.5% spent on sanitary pads indicating a need for these facilities within the hospital. 20.5% were given to the hospital staffs as tips to prepare the operating theatre for delivery,6.2% for cleaning bed, 4.1% to tell the sex of newborn baby, to allow

visitors (1.7%), to have access to fan (1.1%). Other expenditures are to get drinking water (12.1%), to get medicines from outside (3.3%), less than 1% for diagnosing facilities (Fig 17).

Figure 17: Predictability and transparency of payment of Study Population (N=908).



SUB-DOMAINS

Sub- Domain 1: Skin-to-skin contact

Birth marks a critical transition for the baby, from dependence on mother in the womb to independent life outside the uterus. Providing appropriate care during this period is crucial to provide a healthy life start and ensure optimal newborn health and wellbeing. Essential newborn care by WHO recommends immediate skin to skin contact and early breastfeeding as soon as birth as critical components. Skin to skin contact (SSC) should be initiated immediately after birth without any time in the incubator. Evidence shows that immediate SSC improves the survival and enhances breastfeeding of the newborn babies.

Continuous skin-to-skin contact, also helps prevent hypothermia in low birth weight (LBW) and preterm babies. It encourages exclusive breastfeeding, helps prevent infections, and facilitates early discharge with appropriate counselling and follow-up care. It significantly reduces neonatal mortality and morbidity, particularly in resource-constrained environments.

Facility Based Newborn care guidelines highlights the following:

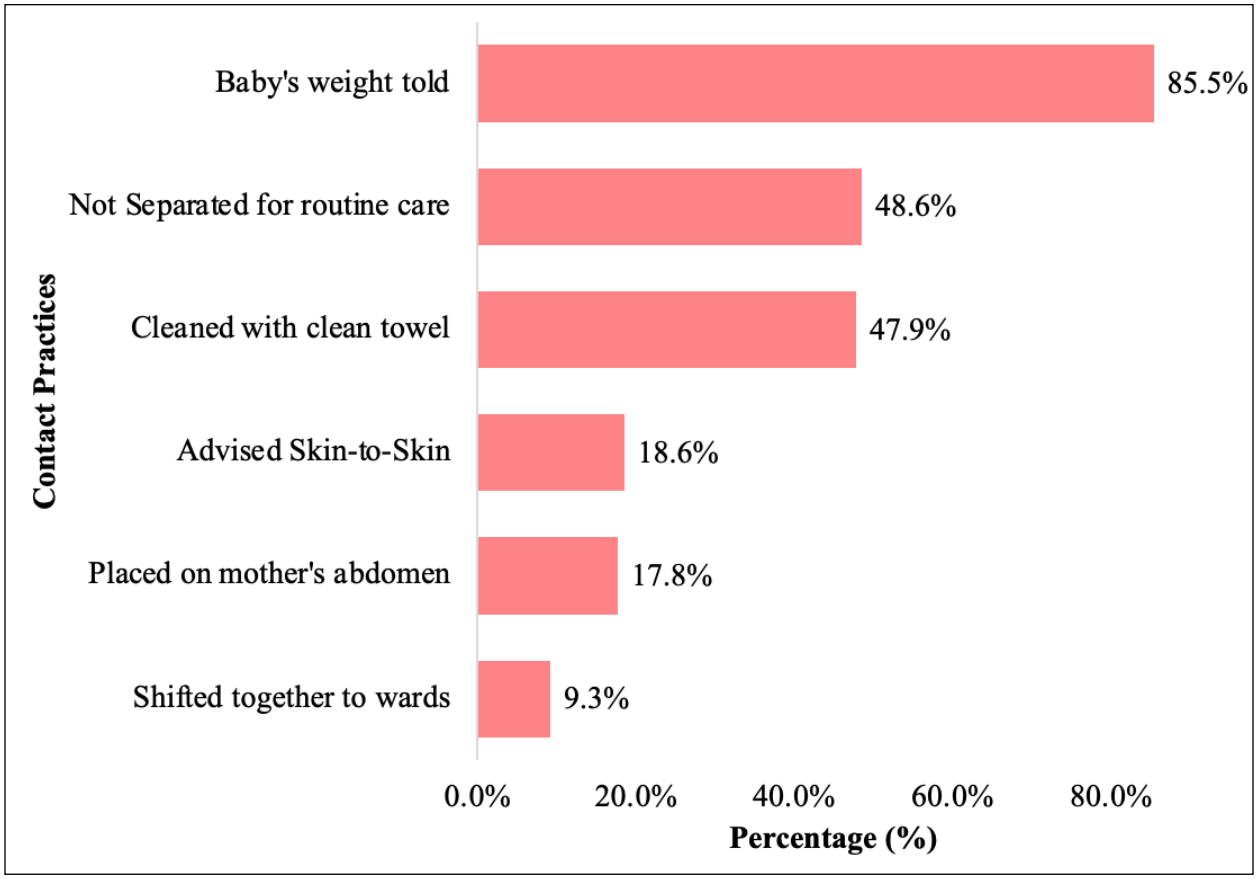
- All babies 34 weeks and above who do not need resuscitation and are stable should be placed prone on the mother's chest and abdomen in skin-to-skin contact for at least one hour and the mother should be assisted to initiate breast feeding.
- Transport in KMC position, Preterm or LBW infant can be transported in KMC position within the hospital, at the time of discharge, to higher facility or during follow-up visit. Neonates remain euthermic and stabilize better in KMC position.

Despite its benefits, less than 20% of mothers were advised on SSC by staff and experienced placing their baby on their abdomen immediately after birth. Nearly 80% of the mothers have never experienced it. This may be due to lack of awareness or least focused among healthcare providers, and families about its benefits, or it can be due to cultural norms or restrictions that prevent mothers engaging in skin-skin contact.

Fewer than 10% of mothers were transferred to the wards along with their child. Nearly 50% of babies were cleaned with a clean towel and remained with their mothers during routine care (Fig 18). These findings reflect partial or lack of adherence to recommended practices.

Nearly 85.5 % of mothers were informed about their baby's weight, and nearly 15% did not know their baby's weight.

Figure 18: Response of mothers on skin-to-skin contact practices(N=908).



Sub-domain 2: Breastfeeding practices

The WHO recommends breast feeding practices to ensure optimal growth, development and health for infants. LaQshya recommends, breast feeding should be initiated within the Golden hour after birth. Despite its recommendations, only about 30% of the mother's breast fed immediately, highlighting the need for increased support and awareness from health care provider. Exclusive breastfeeding enhance cognitive abilities, supports continuous growth and development, and protects against infection.

Approximately 70% of mothers were not informed about signs of danger to their health or their baby's health (Table 15).

Table 15: Responses of mothers on Breastfeeding practice (N=908).

Parameters	Yes, n (%)	No, n (%)
Did you breastfeed your baby immediately after delivery within one hour?	287 (31.6%)	621 (68.4%)
Before discharge, were you told about signs of danger to you and your baby's health?	263 (29.0%)	645 (71.0%)

Sub-domain 3: Birth companion

Mothers are now encouraged to select an individual of their choice to stay with them throughout the birthing process to provide emotional support. As per the LaQshya guideline, labor room set up was altered to accommodate the birth companion, such that she is comfortable to stay along with the mother till the childbirth. The presence of the birth companion in the immediate postpartum period plays a major role in the early initiation of breast feeding and also identifying danger signs in both mother and baby, hence allowing seeking of early help.

- Only 8.8 % of women were allowed to have a birth-companion during delivery. The majority of birth companions were the mother of the respondent (70.5%), followed by the mother-in-law (11.9%) and others (17.6%)
- Only 27.1% of birth companions received orientation or training on their role before entering the labor ward. Less than one-third (29.1%) reported being provided with a chair to sit in the labor ward, and only 18.6% had access to shelter within the premises.
- While 98.3% reported having access to toilets and 73.2% to drinking water, only 37.6% had food provided by the hospital (Fig 19).

Figure 19: Presence of birth companion allowed during delivery.

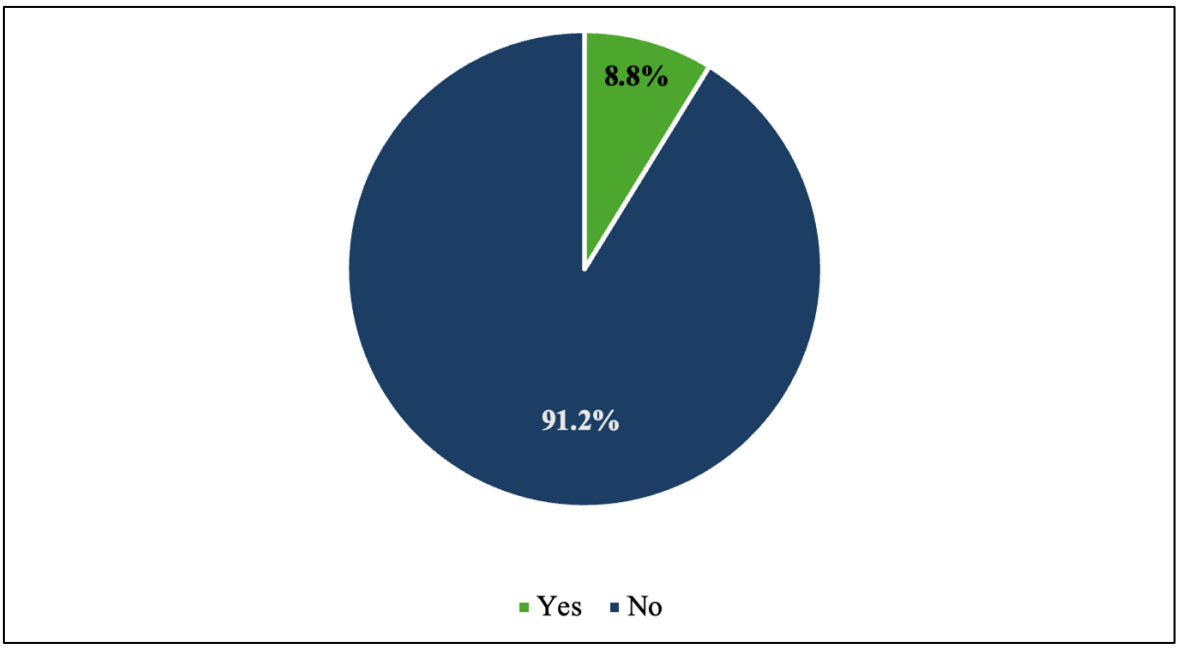
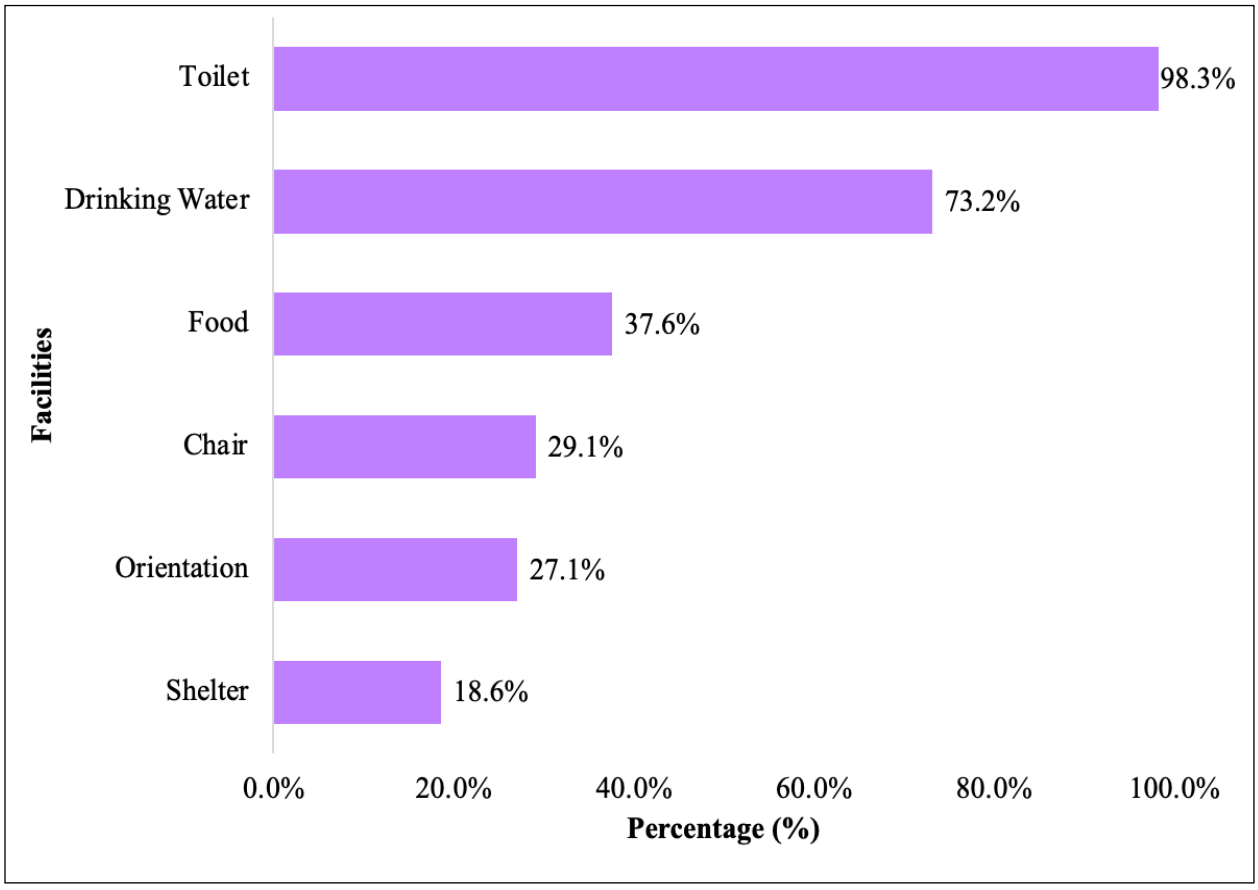


Figure 20: Presence of birth companion and facilities provided to them



Sub-domain 4: Non-Adherence to Modern obstetric Practices:

The information was sought from the women, to know whether the modern obstetric practices were followed, including the shaving of the perineum before delivery, enema given, and augmentation of labor are still being practiced in the LaQshya facility. The findings of the study revealed a failure of adherence to the norms. Nearly half of the facilities were still practicing outdated practices during childbirth, such as shaving the mother's pubic area (42.4%), 53.7% of mothers provided an enema, and 62.0% experienced fundal pressure during delivery. This outdated practice was still prevalent in the LaQshya health facilities

Figure 21: Response of women beneficiaries on use of outdated practices in the facilities (N=908)

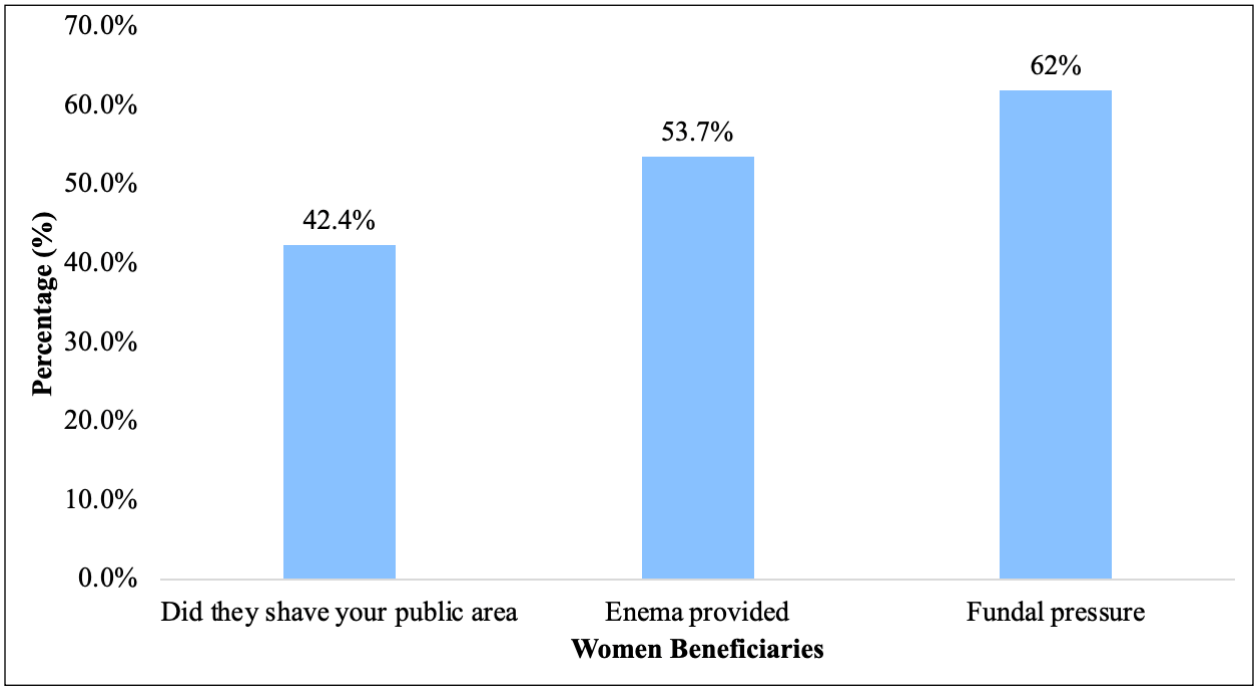


Table 16: Total RMC score (normalized to 100) (N=908).

Parameters	Median (IQR)	Minimum	Maximum
Total RMC Score	77.3 (72.3, 81.5)	34.5	90.8

Note:

1. The median scores were used because the data were not normally distributed.

2. The scores were normalized to 100 for consistency of the report

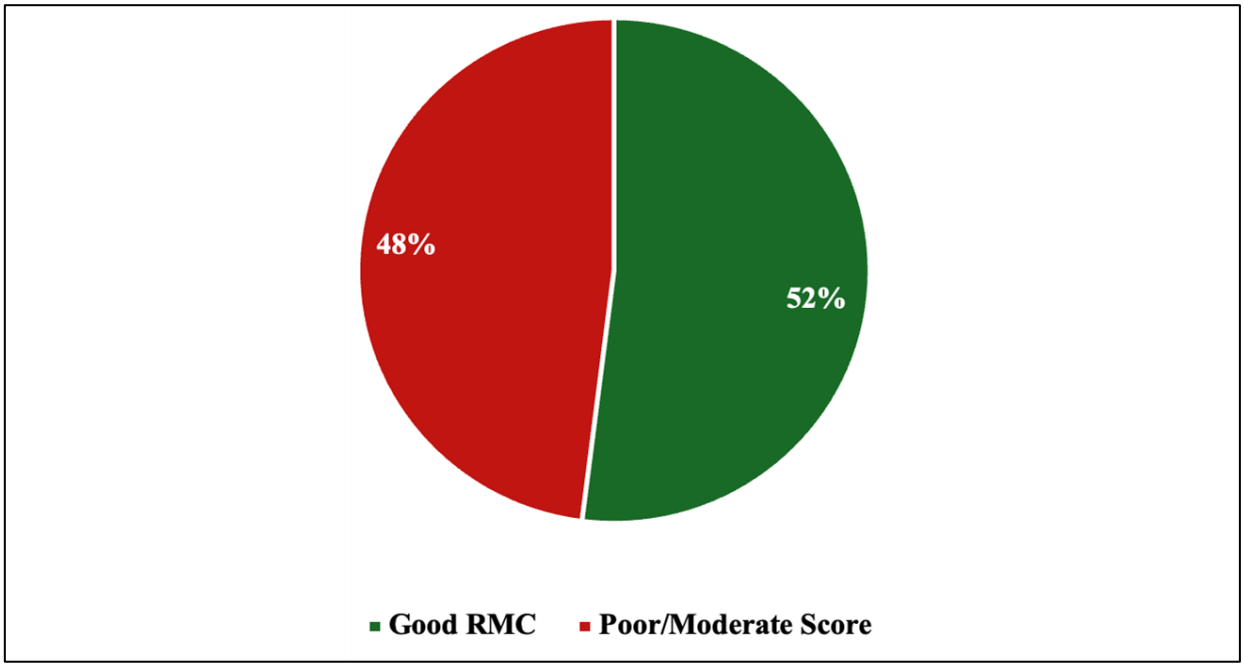
Table 17: Categorisation of RMC scores based on cut-off value

RMC Score	
Good	> 77.3
Poor	≤ 77.3

**Since there is no clear consensus on the cut–off to be used, the median value is used as a cut-off point due to the skewed data distribution, providing a robust measure of central tendency. This approach minimizes the impact of outliers and extreme values.*

Based on the above cut-off values (Good RMC: >77.3 and Poor RMC ≤ 77.3), 48% of the participants received poor Respectful maternity care, while a slightly higher proportion (52%) had a good RMC at the facilities (Fig 22).

Figure 22: Distribution of overall RMC Score as per cutoff value (N=908)



Key findings:

RMC-Domain wise scores: The distribution of RMC domain-wise, based on the cut-off scores (77.3) among the respondents, highlighting the percentages of low and high scores in each category

Dignity and respect: Nearly all respondents reported being treated with dignity and respect (96.1%). during maternity care, indicating strong adherence to one of the core principles of RMC. This reflects positive interpersonal interactions between healthcare providers and patients.

Communication and Autonomy: There was no significant lag in terms of proper communication and autonomy gaps (59.7%). However, many women reported feeling inadequately informed about various aspects of childbirth, including birthing positions, breastfeeding practices, and skin-to-skin contact.

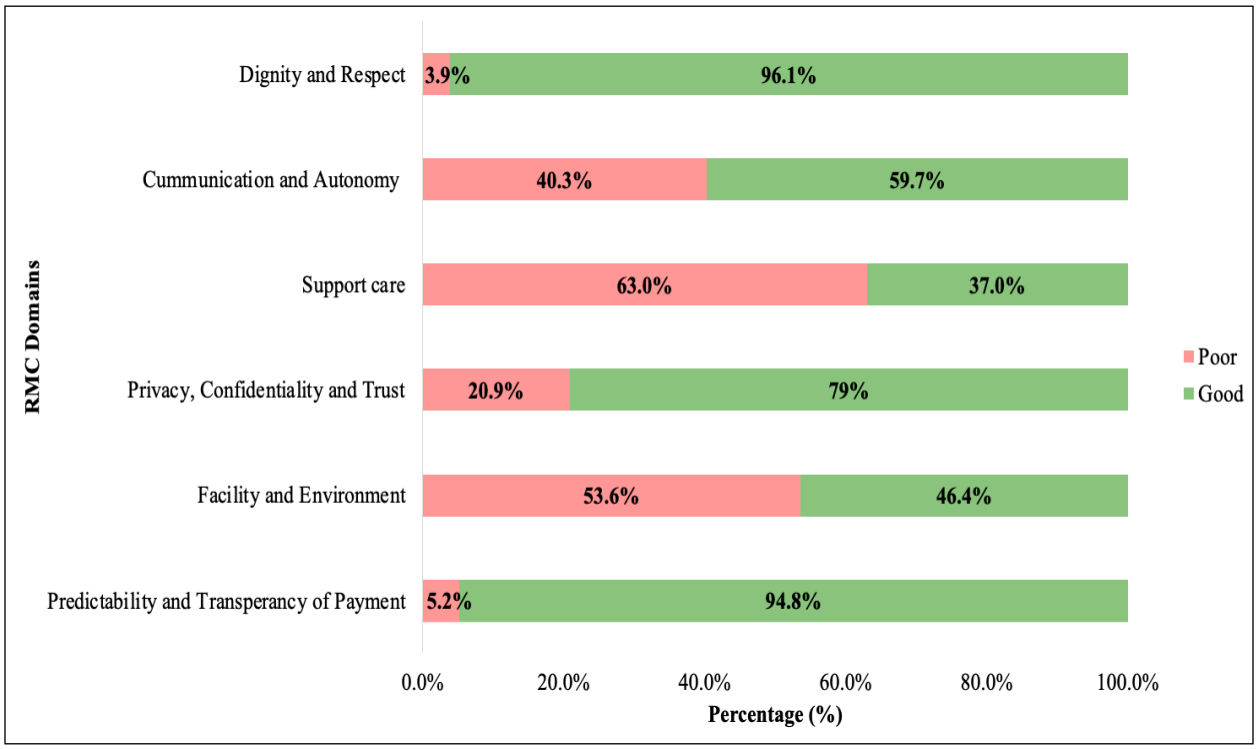
Supportive care: This domain scored 37.0%, reflecting an average level of care provided by service providers at the facilities. A significant proportion of respondents (56.1%) reported that they were not allowed a birth companion during labor, despite its potential to enhance maternal satisfaction and provide emotional support.

Privacy, confidentiality and trust: Most respondents (79%) felt that their privacy was not respected. They were not provided with screens or drapes during examinations. There is still potential for improvement in this area to achieve universal compliance.

Facility Environment: Facility Environment and Cleanliness: Nearly 46.4% of respondents expressed satisfaction with the cleanliness, infrastructure, and overall environment of the facility. However, a significant proportion (53.6%) were dissatisfied, highlighting the need for improvements in facility conditions.

Predictability and transparency of payment: Elevated scores (94.8%) in this area indicate that a majority of women do not incur out-of-pocket expenses.

Figure 23: Distribution of RMC domain-wise scores



RMC scores across facilities:

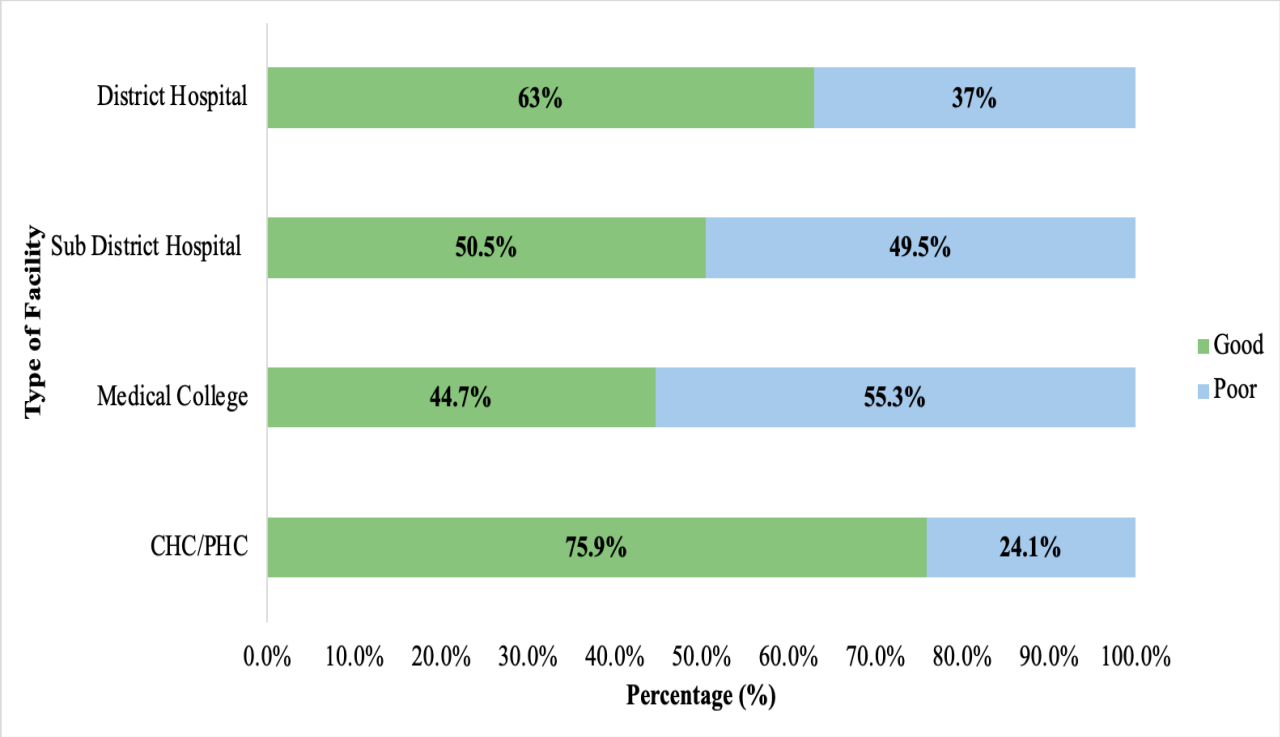
The data presents a comparison of Respectful Maternity Care (RMC) scores across different types of healthcare facilities, including District Hospitals, Sub-District Hospitals, Medical Colleges, and Community Health Centres/Primary Health Centres (CHC/PHC). Here's an interpretation of the findings:

- Across LaQshya certified facilities, women delivered in CHC/PHC and district hospital have received good RMC, with 75.9% and 63.0% above the cut-off score, compared to sub-district hospital (50.5%) and medical college (44.7%).
- Medical Colleges had the highest proportion of low RMC scores (55.3%), indicating room for improvement in these institutions (Table 18).

Table 18: Comparison of RMC Score across type of Facility.

RMC Score	Type of Facility				P value
	District Hospital (n=200)	Subdistrict Hospital (n=200)	Medical College (n=450)	CHC/PHC (n=58)	
Good	126 (63.0%)	101 (50.5%)	201 (44.7%)	44 (75.9%)	**<0.001**
Poor	74 (37.0%)	99 (49.5%)	249 (55.3%)	14 (24.1%)	

Figure 24: Distribution of RMC score across types of facility



RMC at facility level, in Indian context:

RMC is widely recognized as a fundamental right aimed at reducing health disparities and improving maternal outcomes (27). Ensuring RMC involves addressing systemic issues like lack of dignity, privacy, and informed consent during childbirth. The study cites higher RMC compliance at CHCs/PHCs (75.9%) compared to other facilities (district hospital (63%), sub-district hospital (50.5%), and relatively lesser in medical college (44.7%)). These findings are consistent with those from Gujarat, where PHCs outperformed district hospitals (DHs) in maintaining privacy, communication, and supportive care standards (28). This study was conducted in one of the districts in Gujarat, focusing on three levels of health facilities PHC, CHC, DH, where PHCs scored 78% compliance for privacy maintenance vs. 5% in DHs (21). However, even PHCs struggled with basic RMC practices like greetings, updates on labor progress, and birth companionship, issues tied to understaffing and infrastructural gaps (28), (29).

District hospitals and subdistrict hospitals often face challenges balancing high patient loads with quality care. A study in Madhya Pradesh found district hospitals had moderate RMC compliance but lagged in informed consent and dignified care during procedures like episiotomies (30). Structural issues (e.g., lack of private spaces, overburdened staff) and inconsistent policy implementation (e.g., birth companion protocols) are recurring barriers (28), (29)

Tertiary facilities (Medical colleges) report the lowest RMC scores (44.7%). A South Indian study attributed this to high patient volumes, hierarchical staff attitudes, and inadequate training in RMC principles. For instance, only 22% of checklist items met RMC standards (29). These findings indicate a need for structural improvements, staff training, stronger accountability measures, and strengthening policy adherence in healthcare settings.

Recommendations for improving RMC:

- Improve patient-centred care by improving the communication skills of providers. Greeting patients and introducing them by their names, improves trust and enhances provider-patient communication.
- Implementation of birth companion practices in all facilities by improving hospital policies regarding birth companion. Engaging all health care providers for training of birth companions.
- Inform Patients of their rights to have a birth companion, empowering them to seek support during childbirth.
- While IEC boards are effective, their placement in critical areas like maternity OTs and SNCUs needs improvement to enhance outreach. Expanding the placement of IEC boards can improve patient understanding and engagement.
- Strict adherence to informed consent protocols is critical to upholding patient rights and satisfaction.
- Enhance adherence to modern obstetric practices in labor room. Despite several evidence and advancement fundal pressure, enema and shaving of perineum are still persistent. Stricter protocols to implement modern obstetric practices is essential.
- While the majority of the women experienced privacy measures during examinations and procedures, a notable minority did not have their privacy adequately maintained mainly in casualty and examination rooms. This indicates a need for stricter adherence to RMC standards for maintaining physical privacy.
- Implement stricter cleaning protocols to ensure all areas are consistently very clean, especially toilets, and to ensure the availability of basic amenities. A poorly maintained environment can negatively impact maternal satisfaction and potentially affect health outcomes, emphasizing the importance of enhancing infrastructure and hygiene standards.
- The Number of toilet and cleanliness of toilets were found to be subpar. The number of toilets need to be increased with respect to delivery load of the facility. Better Sanitation and disposal practices have to be implemented to prevent frequent blocking of toilets.
- Daily changing of clean bedsheets has to be strictly maintained.
- A bed with sufficient space should be provided to enhance comfort for patients.

- Implementing policies to prevent informal payments and ensure transparency in healthcare can build trust in the system. Immediate action is needed against bribes for preparing delivery rooms, cleaning beds, and disclosing the baby's sex.
- Establish dedicated KMC units within the hospitals, equipped with basic amenities for the mother and her baby
- Pregnant women should be oriented about breastfeeding practices, and skin-skin-skin contact right from their antenatal period.
- Periodic in-service behavioural training for medical professionals, especially support personnel, may help close these specified RMC gaps.

Objective - 2

Knowledge and Skill Assessment

DAKSHATA Knowledge and Skill Assessment (OSCE)

The knowledge and MCH (Maternal and Child Health) skills of healthcare providers in the study facilities are assessed using the DAKSHATA training pre- and post-test knowledge assessment questionnaire and the OSCE checklist.

"DAKSHATA" is a strategic training program designed to rapidly improve competency in providing quality care for women and newborns during the peri-partum period. The Dakshata program in India aims to enhance resources, improve healthcare providers' competence, and strengthen accountability in labor wards of public sector secondary care hospitals. It is based on the WHO Safe Childbirth Checklist, integrated with continuous mentoring, making the checklist a key pillar of the program.

An essential component of this initiative is the strategic skill-building of health workers in key life-saving practices to be performed during childbirth. The following are the key objectives of the DAKSHATA program:

Assessment Procedures for Knowledge and Skill Evaluation

Selection of Participants:

Healthcare providers, including staff nurses and doctors (CRRIs), who were working in the labor ward at the time of the facility visit by the project team, were selected for the assessment without disrupting their normal duties. Participants were individually invited into the skill station room after receiving a proper orientation on the purpose of the assessment.

Knowledge Assessment:

A structured questionnaire was provided to participants, instructing them to select the correct answers.

Skill Assessment:

Following the knowledge assessment, skill evaluation was conducted in the following areas using the "MCH Skill on Wheels" approach, where the assessment team carried skill assessment materials, such as manikins and trays. Skill assessment was conducted based on the DAKSHATA checklist.

MCH Skill Stations:

1.Normal Delivery

2.Active Management of Third Stage of Labor (AMTSL)

3.Postpartum Haemorrhage (PPH) Management

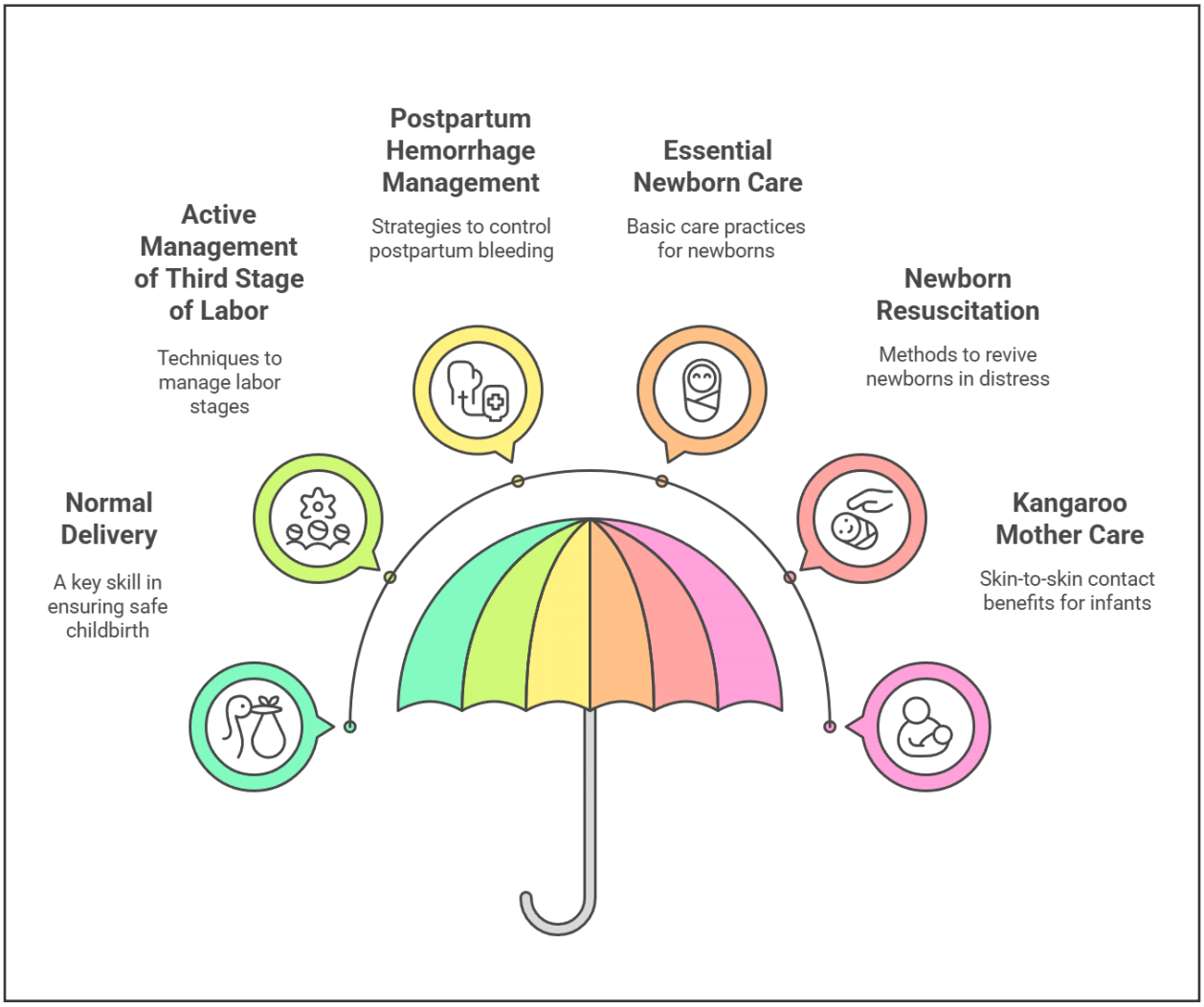
Newborn Care Stations:

1.Essential Newborn Care (ENBC)

2.Newborn Resuscitation

3.Kangaroo Mother Care (KMC)

Figure: Skills Assessed in Maternal and Newborn Care:



Knowledge assessment:

The knowledge assessment tool consists of various questions related to maternal and newborn care practices to assess healthcare providers' knowledge of these aspects.

Assessment of knowledge of HCPs regarding the management of maternal and newborn care practices:

- A total of 124 participants answered the knowledge assessment questionnaire
- The average Knowledge assessment score is 15.5, and most of the scores fell between 13.6 and 17.4
- With a cut-off pass score of 80%, most of the participants exceeded the threshold (72.6%)
- 25% of the respondents scored between 60-80% and less than 3% scored less than 60%, indicating a room for improvement.

Table 19: Descriptive statistics of Total Knowledge assessment score (N=124).

Parameter	Mean ± SD	Median (IQR)	Minimum	Maximum
Total Knowledge assessment score	15.5 ± 1.9	16.0 (14.0, 17.0)	10	18

Table 20: Distribution of Knowledge assessment Score across cut-off values (N=124).

Knowledge assessment Score	Summary Statistics
<60%	3 (2.4%)
60% - 80%	31 (25.0%)
>80%	90 (72.6%)

Maternal and newborn care knowledge assessment score:

- Questions related to waste management - Puncture-proof container (98.4%), yellow bag (96.8%), red bag (96.0%), injection Vit K given to babies (98.4%), correct use of oxytocin during labor (97.6%), and management of severe headache in pregnancy (96.0%) are the questions answered correctly by most of the participants.

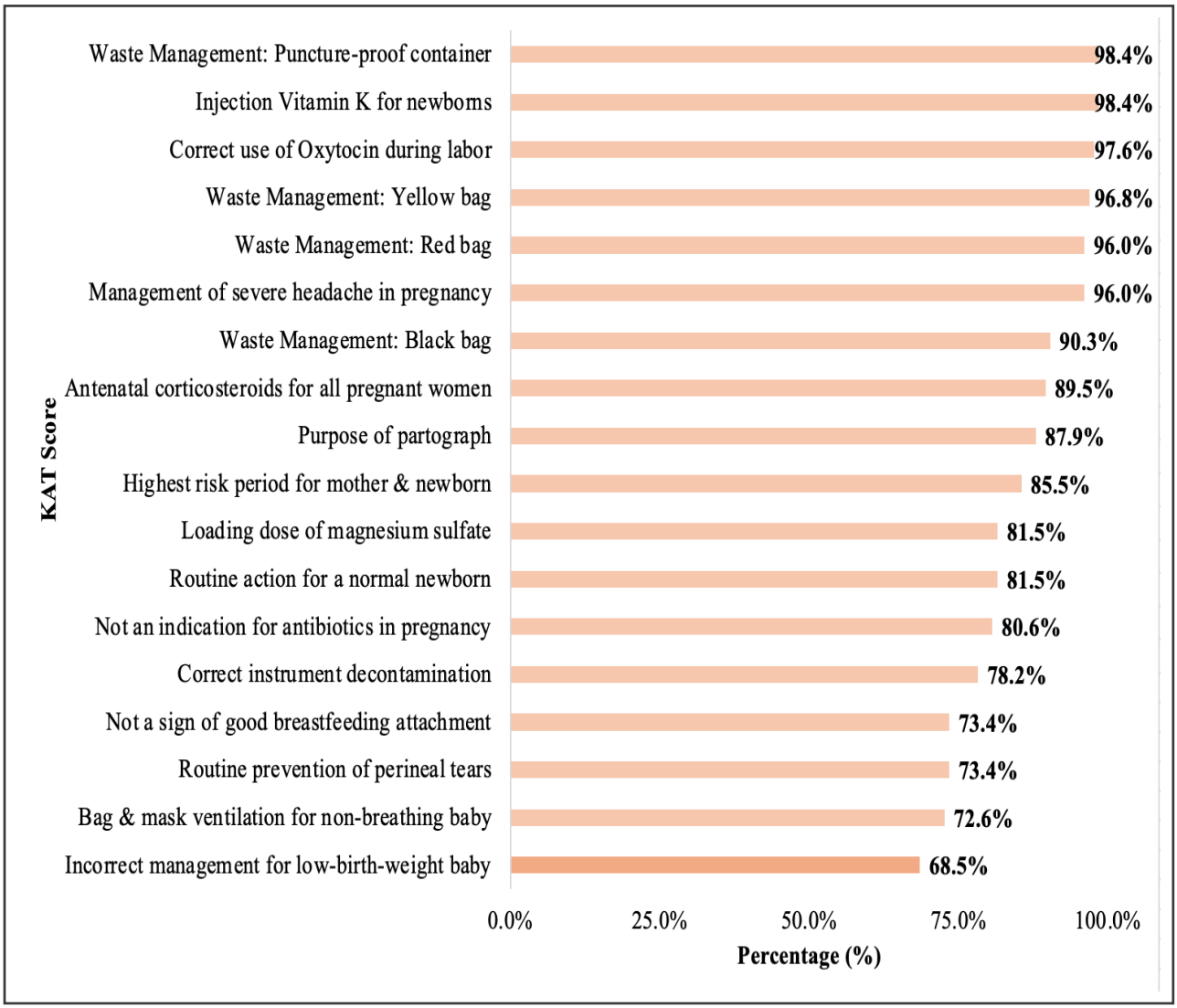
- When asked about appropriate management of low-birth weight babies, nearly 31.5% of the service providers answered incorrectly.
- Nearly 70-80% of the service providers, when asked about when a baby should be given bag and mask ventilation if he/she does not start breathing spontaneously (72.6%), What should be done routinely to reduce perineal tears in primigravida (73.4), NOT a sign of good attachment during breastfeeding (73.4), steps followed in decontamination of instruments (78.2%), where answered correctly.

Table 21: Participant responses to maternal and newborn care questions (N=124).

Questions on the knowledge domain	Participant's' response (N= 124)	
	Answered Correctly, n (%)	Answered Incorrectly, n (%)
Which is the highest risk period for a mother and her newborn	**106 (85.5%)**	**18 (14.5%)**
Sunita, an 8-month pregnant woman, came to your facility with a severe headache. What will you do:	**119 (96.0%)**	**5 (4.0%)**
Partograph is a tool for:	**109 (87.9%)**	**15 (12.1%)**
Which one is NOT an indication for giving antibiotics to pregnant women	**100 (80.6%)**	**24 (19.4%)**
Giving antenatal corticosteroids to pregnant women	**111 (89.5%)**	**13 (10.5%)**
Select the correct statement about the use of Oxytocin during Labor from the following. Oxytocin is given:	**121 (97.6%)**	**3 (2.4%)**
As soon as a baby is born, which action needs to be done routinely for a normal baby:	**101 (81.5%)**	**23 (18.5%)**
A baby should be given bag and mask ventilation if he/she does not start breathing spontaneously:	**90 (72.6%)**	**34 (27.4%)**
What should be done routinely to reduce perineal tears in primigravida:	**91 (73.4%)**	**33 (26.6%)**
Injection vitamin K is given to which of the following babies:	**122 (98.4%)**	**2 (1.6%)**
What is the loading dose (IV+ IM) of injection of magnesium sulphate:	**101 (81.5%)**	**23 (18.5%)**

Appropriate management for low-birth-weight babies does NOT include one of the following:	**85 (68.5%)**	**39 (31.5%)**
Which of the following is NOT a sign of good attachment during breastfeeding	**91 (73.4%)**	**33 (26.6%)**
Which of the following is correct about decontamination of instruments:	**97 (78.2%)**	**27 (21.8%)**
Waste Management		
Yellow bag	**120 (96.8%)**	**4 (3.2%)**
Red bag	**119 (96.0%)**	**5 (4.0%)**
Puncture proof	**122 (98.4%)**	**2 (1.6%)**
Black bag	**112 (90.3%)**	**12 (9.7%)**

Figure 25: Percentage of Knowledge assessment questionnaire answered correctly.



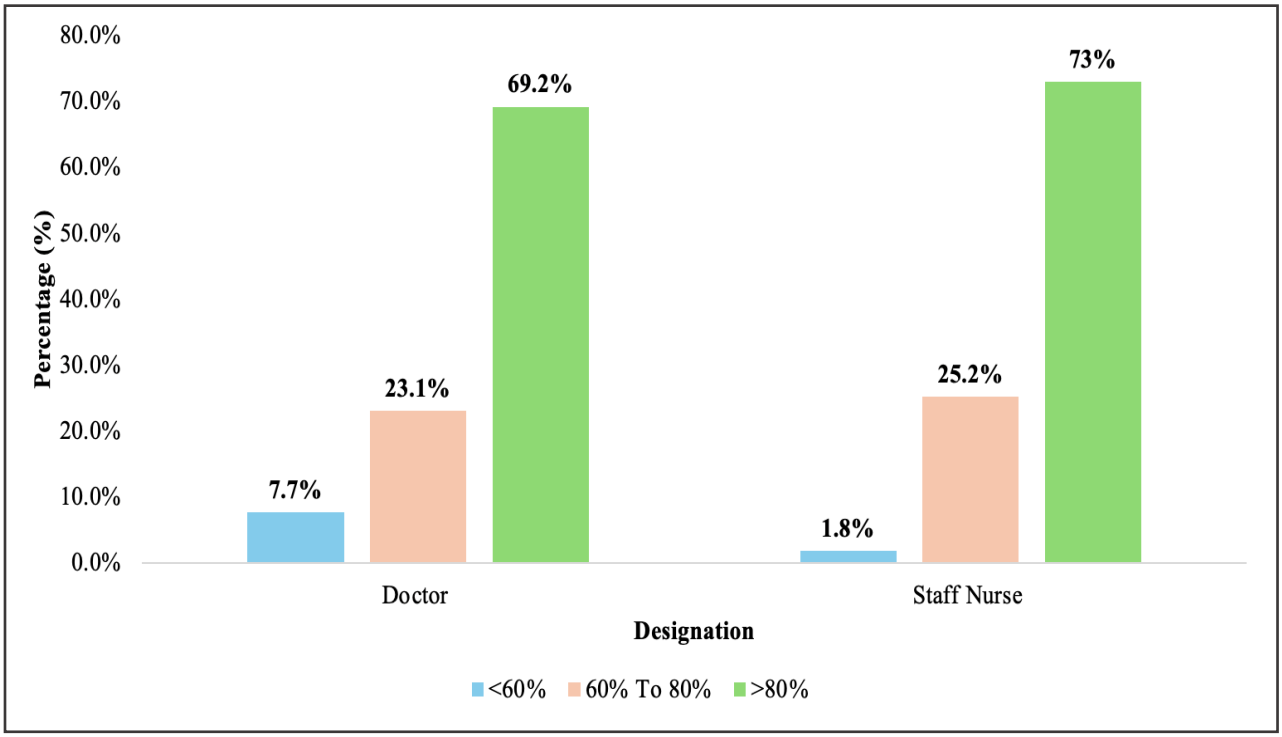
Distribution of Knowledge assessment scores across designation:

- Doctors and staff nurses showed similar knowledge assessment scores with a median score of 16.0 out of 18, ranging between 14 and 16.
- Staff nurses had slightly more variability in IQR scores 14 and 17 than doctors (Table 22).
- The majority of doctors (69.2%) and staff nurses (73%) scored above the threshold (80%).
- Additionally, 23.1% of doctors and 25.2% of nurses have scored between 60-80%.
- And, a small percentage of staff nurses (1.8%) and doctors (7.7%) scored below 60%.

Table 22: Comparison of total Knowledge assessment score across designation (N=124).

Parameter	Designation	
	Doctor (n=13)	Staff Nurse (n=111)
Total Knowledge assessment Score	16.0 (14.0, 16.0)	16.0 (14.0, 17.0)

Figure 26: Comparison of Knowledge assessment cut-off Score across Designation



Knowledge assessment scores across facilities:

The data presents a comparison of Knowledge assessment questionnaire scores across different types of healthcare facilities, including District Hospitals, Sub-District Hospitals, Medical Colleges, and Community Health Centres/Primary Health Centres (CHC/PHC), (Table 23). Here's an interpretation of the findings:

- HCPs from district hospital, sub-district hospital, and others (CHC/PHC), exhibit similar knowledge levels, have scored almost equally in their knowledge scores with half of them scoring 16 or above.
- Half of the HCPs from medical college have scored 15 out of 18, and the middle 50% of the scores fell between 14-16, indicating a slightly lower performance when compared to other facilities.

Table 23: Comparison of total Knowledge assessment Score across the facility (N=124).

Parameter	Type of Facility			
	District Hospital	Sub District Hospital	Medical College	Others (CHC/PHC)
Total Knowledge assessment Score	16.0 (14.0, 17.0)	16.0 (15.0, 17.0)	15.0 (14.0, 16.0)	16.0 (15.0, 17.0)

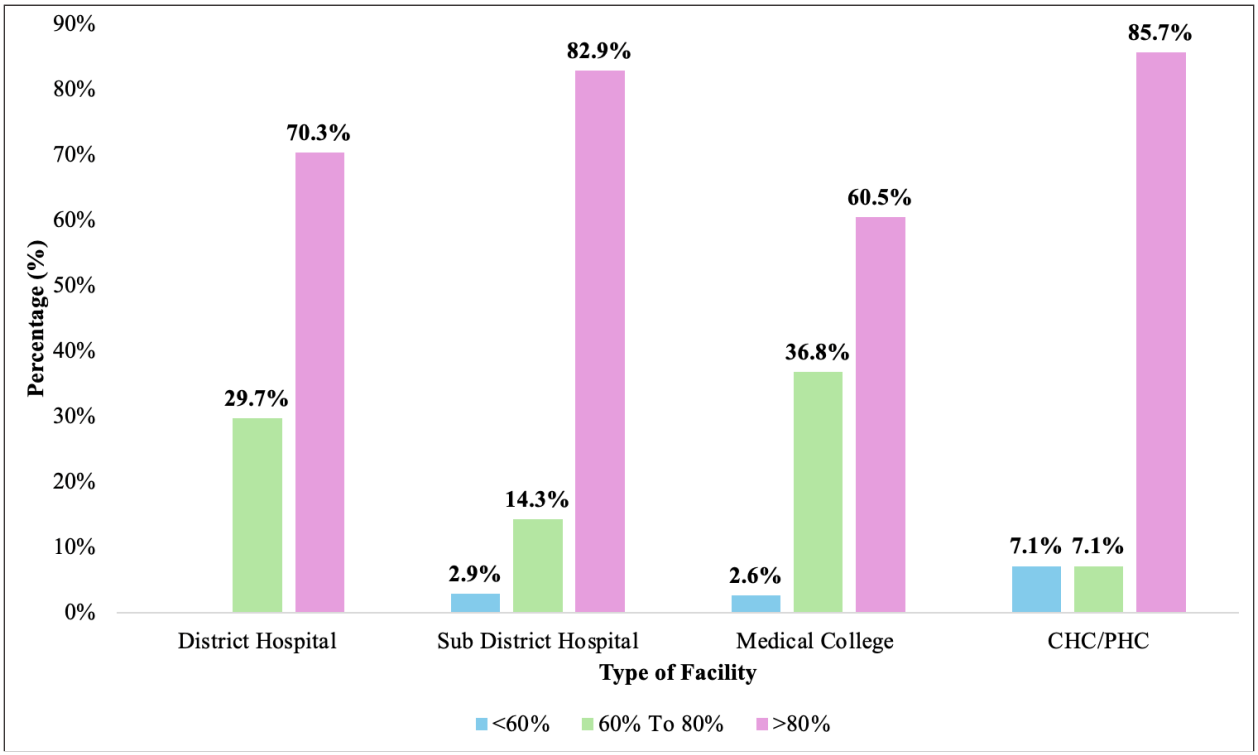
Distribution of Knowledge assessment scores based on cut-off ranges across facility:

The Knowledge assessment scores were categorized based on cut-off ranges: <60%, 60-80%, and >80%.

- District Hospital: A majority (70.3%) of the HCPs scored above 80% and around 30% scored in the range of 60-80%
- Sub-district Hospital: More than 80% of HCPs scored above 80%, 14.3% scored between 60-80% and less than 3% have scored below 60%

- Medical college: Around 60% of the HCPs have scored above 80%, 36.8% have scored between 60-80% and less than 3% have scored below 60%
- Others (CHC/PHC): More than 2/3rd of the participants scored above 80%, and nearly 7.1% have scored between 60-80% and below 60%.

Figure 27: Distribution of Knowledge scores based on cut-off range (N=124).



Key findings of Knowledge assessment:

- The overall Knowledge assessment average score is 15.5 ± 1.9, which exceeds the cut-off score (80%) of 14.4, indicating a generally satisfactory level of knowledge among respondents.
- There is not much difference in terms of Knowledge assessment score across designation, with the majority of the doctors (69.2%) and staff nurse (73 %) scoring above 80%.
- Overall, healthcare providers across all facility types (district hospital, sub-district hospital, and CHC/PHC facilities) demonstrated a strong level of knowledge, as indicated by median

scores close to 16 out of 18, while medical college HCPs scored slightly less with a median score of 15 out of 18.

Skill assessment:

Objective structured clinical examination-OSCE:

Ensuring skill assessment of all staff of LR & Maternal OT through OSCE (Objective Structured Clinical Examination) testing as per Dakshata guidelines for the delivery of 'zero-defect' quality obstetric and newborn care. It enhances the proficiency of the labor room and operation theatre staff for the management of the complications through skill-lab training, simulations, and drills. Ensuring that staff working in the labor room and maternity OT are not shifted from maternity duty to other departments/ wards frequently. As the objective of the training is to build competency, the cut-off pass score for knowledge and skills will be 80% individually, as per LaQshya recommendations.

Assessment of skills of HCPs regarding the management of maternal care using the OSCE checklist:

Management of Primary postpartum haemorrhage:

- Postpartum haemorrhage is the leading cause of maternal mortality globally. In Tamil Nadu, PPH is a significant cause of maternal deaths, accounting for 20% of maternal deaths. However, deaths due to PPH can be prevented with timely diagnosis and management. According to the multidisciplinary consensus statement, the prediction of PPH is difficult and there is no single risk factor except abnormal placentation. Despite a number of contributing risk factors (multiple pregnancies, history of PPH, pregnancy-induced hypertension, chorioamnionitis, episiotomy, pre-labor caesarean section, macrosomia, and operative vaginal delivery), PPH can develop unpredictably without any risk factor. Therefore, any maternal unit should be prepared to manage postpartum haemorrhage with physicians responsible for maternal care.

- The average score of PPH management was 55.7 ± 20.0, with scores ranging from 0 to 100.

Normal delivery:

- In this domain, HCPs are expected to learn how to assist the woman in the second stage of normal labor and how to deliver the baby.
- The average scores scored by health care providers are 50.7 ± 15.2, with scores ranging from 12 to 88.

Active management of third stage of labor (AMTSL):

- Here the HCPs are expected to be trained on the management of AMTSL. Describe imminent signs of delivery, controlled delivery of head, shoulders, and body. Describe the importance of the three steps of AMTSL including,
    - Administration of uterotonic drug
    - Controlled cord traction and
    - Uterine massage

- The average scores scored by HCPs in this domain are 58.3 ± 14.3 with the range of 26.7 to 86.7

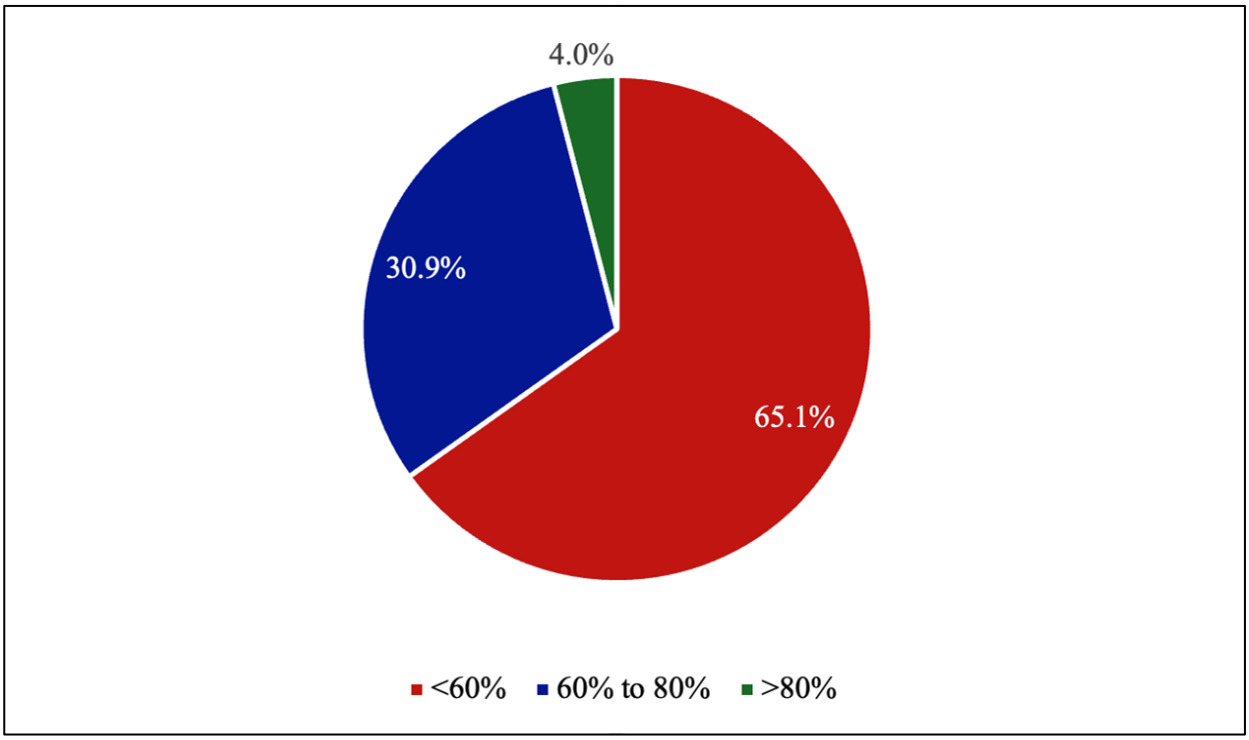
Total Maternal care scores:

- The total maternal care mean scores are 54 ± 13.1, which range between 26-86 (Table 24).
- As per the laQhsya indicators, a majority of the participants (65.1%) scored less than 80%. Only 4.0% of the participants scored above 80% (Fig 24).

Table 24: HCP's skill assessment in management of Maternal Care practices (N=149).

Maternal Care	Mean ± SD	Median (IQR)	Minimum	Maximum
PPH	55.7 ± 20.0	50.0 (40.0, 70.0)	0	100
Normal Delivery	50.7 ± 15.2	48.0 (40.0, 64.0)	12	88
AMTSL	58.3 ± 14.3	53.3 (46.7, 66.7)	26.7	86.7
Total Maternal Care	54 ± 13.1	50.0 (44.0, 66.0)	26	86

Figure 28: Percentage of maternal care scores



Assessment of skills of Health care providers regarding the management of New born care using the OSCE checklist:

Kangaroo mother care (KMC):

Prematurity is one of the leading causes of neonatal deaths and can be prevented by extra thermal care including KMC, prevention and management of infection, and assisted feeding. KMC is a simple method of care for low-birth-weight infants and includes early and prolonged skin-to-skin contact with the mother (or a substitute caregiver) and exclusive and frequent breastfeeding. The average scores scored by health care providers are 60.8 ± 17.3, with scores ranging from 20 to 100.

Essential newborn care (ENBC):

Most of the neonatal deaths occur during delivery or on the day of birth. Newborn deaths due to hypothermia, asphyxia, and infection can be prevented by providing ENBC to all of them immediately after birth**.** The average scores scored by health care providers are **63.3 ± 14.0**, with scores ranging from 30 to 90.

Newborn Resuscitation:

Only 10% of babies require assistance to begin breathing after birth. It is, however, important to keep all the equipment necessary for resuscitation ready at every delivery, so that no time is wasted in an emergency and the life of new born can be saved the period of first one-minute following birth is called the "golden minute" for the baby because the baby must start crying or breathing within this one minute of birth to be healthy. The average scores scored by health care providers are **33.7 ± 14.3**, with scores ranging from 0 to 93.3.

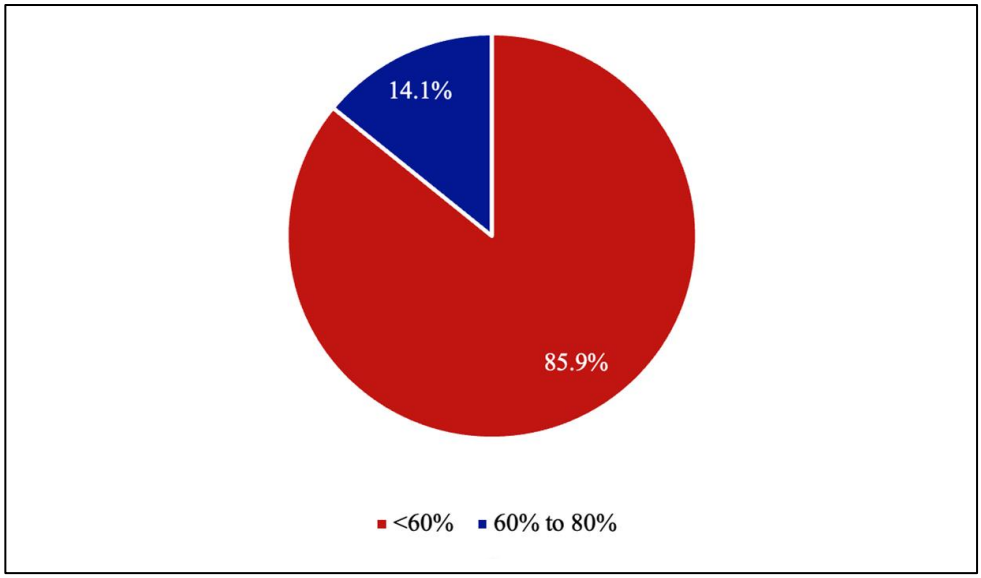
Total newborn care scores:

- The total maternal care mean scores are **49.9 ± 9.3**, which range between 31.4-77.1 (Table 25).
- In terms of newborn care scores, none of the participants have scored above 80 % and most of them (85.9%) have scored less than 60% (Fig 25).

Table 25: HCP's skill assessment in management of Newborn Care practices(N=149).

New Born Care	Mean ± SD	Median (IQR)	Minimum	Maximum
KMC	60.8 ± 17.3	60.0 (50.0, 70.0)	20	100
ENBC	63.3 ± 14.0	60.0 (50.0, 70.0)	30	90
Newborn Resuscitation	33.7 ± 14.3	33.3 (26.7, 40.0)	0	93.3
Total New Born Care	49.9 ± 9.3	51.4 (42.9, 57.1)	31.4	77.1

Figure 29: Percentage of the total newborn care scores



Assessment of LR on OT skill assessment scores across Designation:

- Nearly 80.4% of Staff - nurses have participated in OSCE assessment, while doctors made up only 19.6%, indicating a greater representation of nurses in the assessment (Table 26).

Maternal care scores:

- A significant proportion (62.1%) of doctors have scored above 60-80%, 31% scored below 60%, and only 31% scored above 80%
- A higher percentage (73.1 %) of nurses scored above 60%, while 23.5% scored between 60-80% and 3.4% scored above 80%.

Newborn care scores:

- 13.8% of doctors have scored above 60-80 %, majority (86.2%) scored below 60%, and none scored above 80%
- 14.3 % of nurses scored above 60%, 85.7% scored between 60-80% and none scored above 80%, similar to doctors

These results did not adhere to the LaQshya requirement to score above 80% in OSCE, hence need further hands-on training and intervention programs, to enhance the skills of HCPs.

Table 26: Distribution of Designation in the study population (N=148)

Designation	Summary Statistics
Doctor / PG- Student	29 (19.6%)
Staff Nurse	119 (80.4%)

Figure 30: Comparison of Maternal Care scores across designation (N=148).

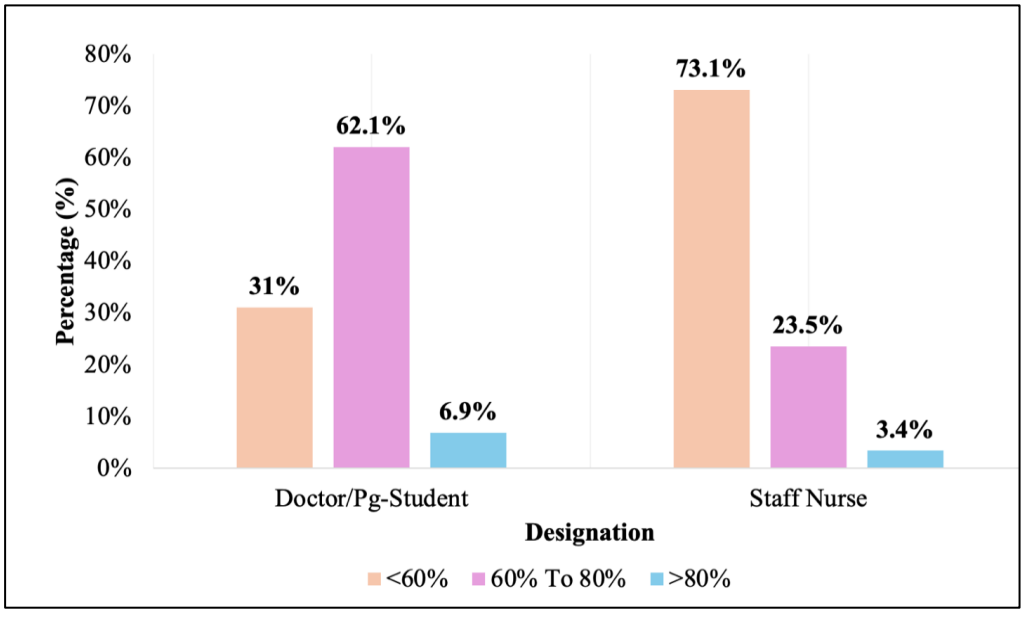
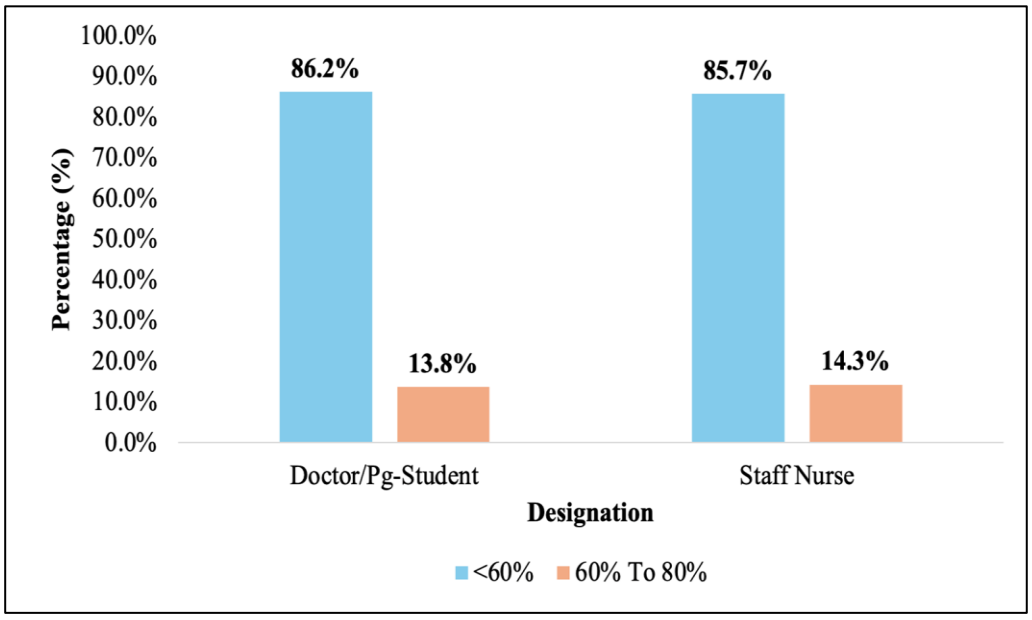


Figure 31: Comparison of New Born Care scores across designation

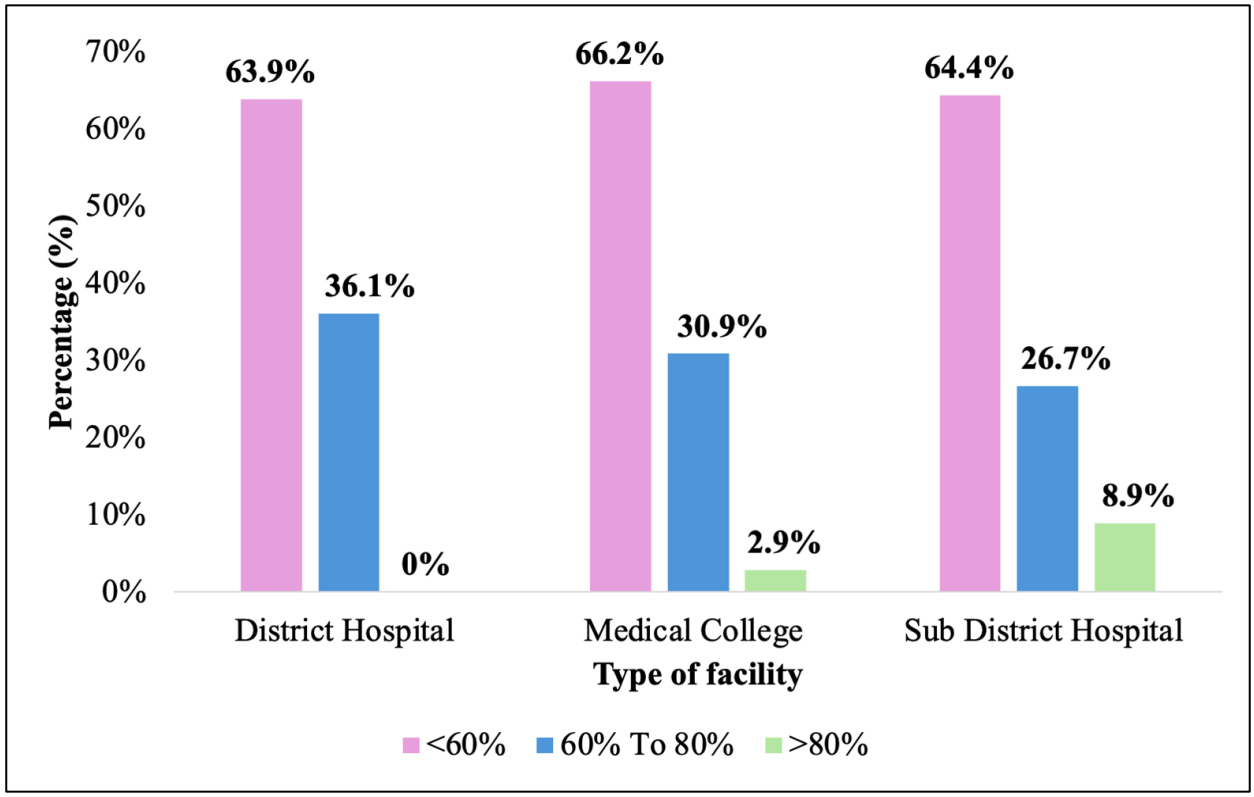


Assessment of LR and OT skill assessment scores across types of facility:

Maternal care scores:

- A comparison of maternal care cut-off scores (80%) across facilities shows the majority of respondents scored below 60%, across all facilities.
- District hospital: None of the respondents from the district hospital have scored above 80 %, while 63.9% have scored below 60%, and 36.1 % have scored between 60-80% (Fig 32).
- Sub-district hospital: A slightly better performance was observed with 8.9% scoring above 80%, Still, a considerable proportion, 64.4% scored below 60% and 26.7% scored between 60-80%
- Medical college: only 2.9% have scored above 80%, with a majority (66.2%) having scored below 60%, followed by 30.9% having scored between 60-80%.

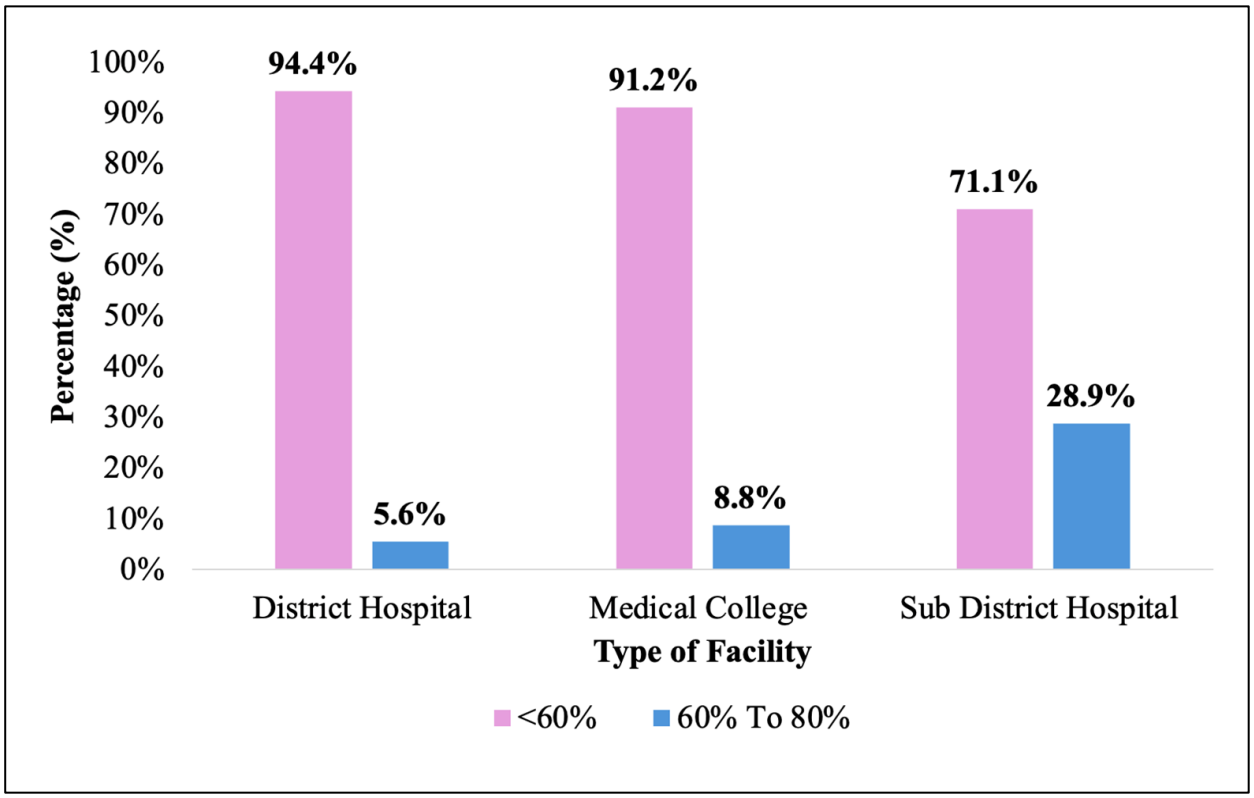
Figure 32: Comparison of maternal care scores across type of facility



Newborn care scores:

- Comparison of newborn care cut-off scores (80%) across facilities shows that none of the respondents from all three facilities scored above 80% and the majority of respondents scored below 60%, across all facilities.
- District hospital - Only 5.6% of HCPs have scored between 60-80%, with the majority of them (94.4%) having scored below 60%.
- Sub-district hospital- A slightly higher percentage of participants have scored between 60-80%, but still most of them (91.2%) fell below 60%.
- Medical college- While a relatively higher percentage of respondents scored between 60-80% compared to other facilities, the majority (71.1%) still scored below 60%, showing a similar trend as another facility

Figure 33: Comparison of newborn care scores across type of facility (N=149).



Key findings of Skill assessment:

- The results highlight the importance of skill-building for healthcare providers in maternal care, particularly in managing PPH, newborn resuscitation, and normal delivery
- The overall average score for maternal care practices is **54 ± 13.1** and for newborn care practices is **49.9 ± 9.3**, which is below the cut-off pass score of 80% as per LaQshya guideline.
- There is not much difference across designation, with a majority of the doctors and nurses scoring below 60%, in both Maternal care practices and newborn care practices.
- **Maternal care scores:** The overall performance across the facility is low, with no respondents from the district hospital having scored above 80%, and only a small percentage from the sub-district and the medical college scoring above 80%.

- Respondents from the Sub-district hospital showed relatively better performance compared to other facilities, through the majority still scored below 60%.
- **Newborn care scores:** None of the HCPs scored above the cut-off pass scores (80%) across facilities. The medical college had a slightly better score, yet a majority (71.1%) fell below 60%.

Recommendations to improve knowledge and skills of HCPs on maternal and newborn care practices:

- Strengthening of Quality circles, enhancing data driven Quality improvement initiatives.
- District Quality training team should present data to the leaders and initiate QI improvement specific for each facility under the guidance of leaders (HOD/Dean/CMO/District Administrators)
- Skill based continued refresher training at facility level under the guidance of District Quality training team.
- Provide immediate feedback after assessments to help healthcare providers improve their skills effectively
- All healthcare workers should be trained and certified to satisfy the eligibility criteria of working in labor room.
- Although Knowledge assessment scores are above the threshold level, regular training will help to keep up and retain the knowledge on these aspects
- Conduct regular Knowledge assessment assessments to monitor progress and address specific gaps in knowledge retention across different facility types and designations.

Objective - 3

Employee Satisfactory Survey

To determine the job satisfaction of the health care providers in the facility, the satisfaction of employees was measured using a 20-item scale, a self-administered questionnaire.

Sociodemographic details of HCPs:

- A total of 198 health care providers were asked to fill out this employee satisfaction questionnaire.
- Staff nurses (44.9%) were huge in number, followed by Sanitary workers (23.2 %), pharmacists (12.6%), and nearly 10% were doctors and sanitary supervisors.
- Participants were from District hospital (28.3%), sub-district hospital (31.3%), Medical college (30.8%) and other facilities (9.6%).
- The mean age of the participants is 39.5 ± 8.7
- The majority of participants had completed a diploma (53.6%), followed by secondary education (11.7%), Undergraduate (12.8%), and postgraduate (10.7%).
- A smaller proportion had primary education (8.2%), higher secondary education (2.6%), and one participant was illiterate
- Most of the participants had 1.5 to 17.7 years of experience.

Table 27: Descriptive statistics of study population (N=198).

Parameters	Mean ± SD
Age, n=198	39.5 ± 8.7
Work Experience (years), n=196	9.6 ± 8.1
Parameters	**n (%)**
Type of facility	
District Hospital	56 (28.3%)
Sub District Hospital	62 (31.3%)
Medical College	61 (30.8%)
Others	19 (9.6%)
Designation	
Doctor	20 (10.1%)
Pharmacist	25 (12.6%)
Sanitary supervisor	18 (9.1%)
Sanitary Worker	46 (23.2%)
Staff Nurse	89 (44.9%)
Education	
Primary	16 (8.2%)
Secondary	23 (11.7%)
higher Secondary	5 (2.6%)
Diploma	105 (53.6%)
UG	25 (12.8%)
PG	21 (10.7%)
Illiterate	1 (0.5%)

Principal Component Analysis - PCA

Principal Component Analysis (PCA) is a dimensionality reduction technique used to transform a high-dimensional dataset into a lower-dimensional space while retaining as much variance as possible. It identifies new axes, called principal components (PCs), that maximize variance and reduce redundancy.

Methodology

In this analysis, PCA was applied to the Job satisfaction dataset to uncover underlying patterns and reduce complexity. The steps followed were:

1. Data Preprocessing: The dataset was standardized to ensure all features contribute equally.
2. Covariance Matrix Calculation: The relationships between features were examined.
3. Eigenvalue and Eigenvector Computation: Principal components were extracted based on eigenvalues.
4. Explained Variance Analysis: The contribution of each principal component was evaluated.
5. Dimensionality Reduction: The most significant principal components were retained for further analysis.
6. Visualization: Scree plots and component projections were used to interpret the results.

Inference:

The PCA identified five key dimensions underlying job satisfaction. The first component, representing general job satisfaction, underscores the importance of fulfilling basic needs and providing recognition. The second component emphasizes the need for a comfortable and unbiased work environment. Training and development emerged as another significant factor, aligning with previous studies that link skill enhancement to employee satisfaction.

PCA revealed five significant components explaining 61.46% of the variance in job satisfaction. These components provide actionable insights for organizations aiming to improve employee satisfaction through targeted interventions.

Visualizations & findings:

- Scree Plot and Variance Explained: The scree plot revealed an "elbow" after the fifth component, indicating that five components were sufficient to explain the variance. These components cumulatively explained 61.46% of the total variance (Table 28).

Table 28: Variance Explained by Components

Component	Eigenvalue	Proportion of Variance (%)	Cumulative Proportion (%)
PC1	2.56	32.78	32.78
PC2	1.49	11.08	43.86
PC3	1.19	7.08	50.94
PC4	1.06	5.57	56.51
PC5	0.99	4.95	61.46

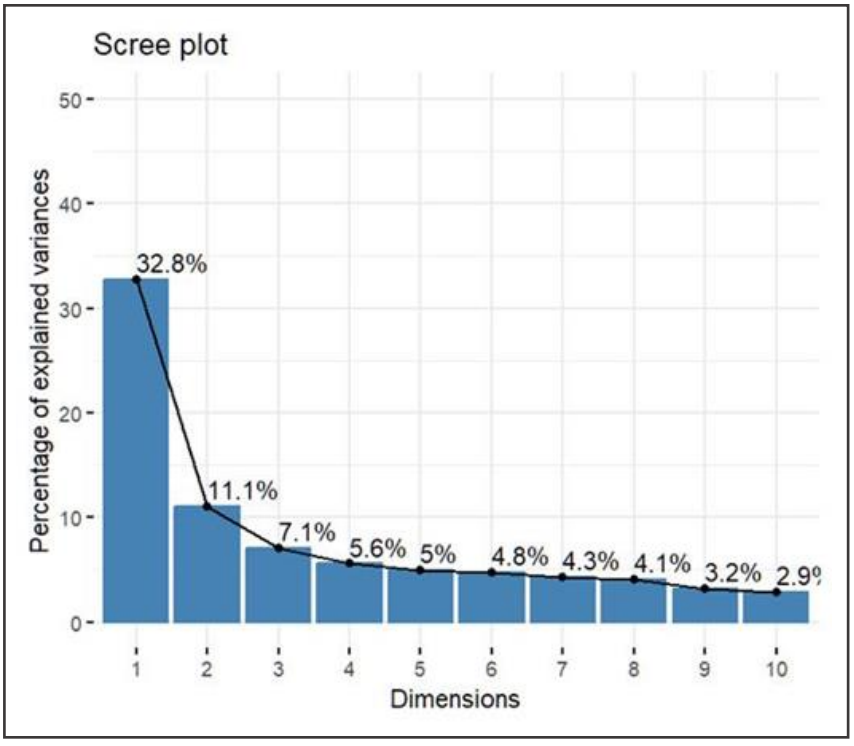
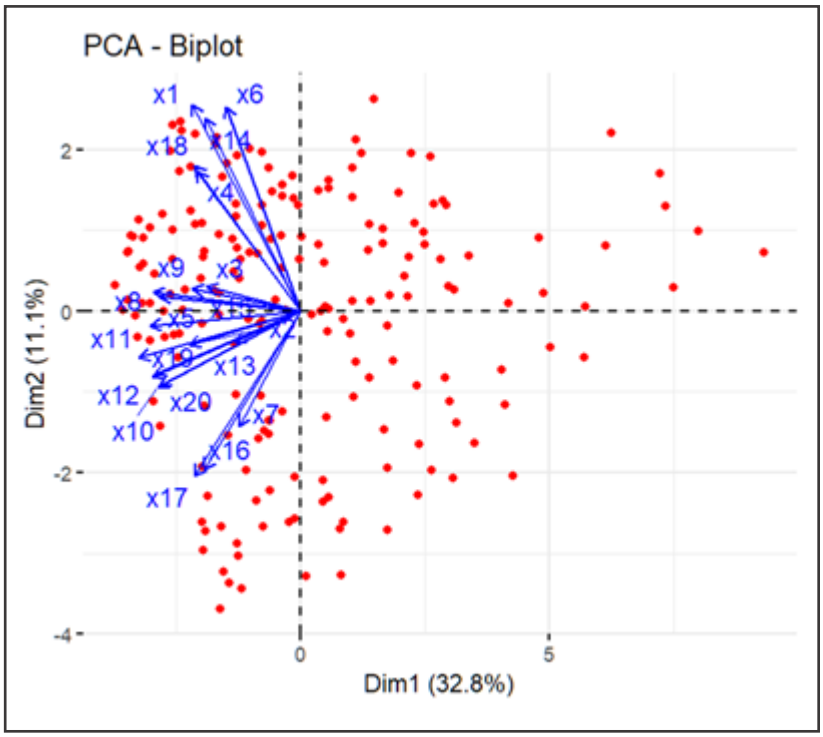


Table 29 presents the loadings of variables for the first five components. Significant loadings (> |0.4|) are highlighted.

Table 29: Variable Loadings

Variable	PC1	PC2	PC3	PC4	PC5
x1	-0.20	0.41	0.17	-0.01	0.01
x2	-0.21	-0.07	-0.16	-0.18	-0.25
x3	-0.18	0.05	-0.33	0.49	0.01
x4	-0.20	0.28	-0.07	0.16	0.01
x5	-0.26	0.03	-0.05	0.00	-0.14
x6	-0.14	0.40	0.02	-0.03	0.23



A biplot was generated to illustrate the contribution of variables to the components. Variables cluster around their respective components, providing visual confirmation of the loadings.

PCA Findings:

PCA revealed five significant components explaining 61.46% of the variance in job satisfaction

Fig 34: Positive variables explaining most of the variance:

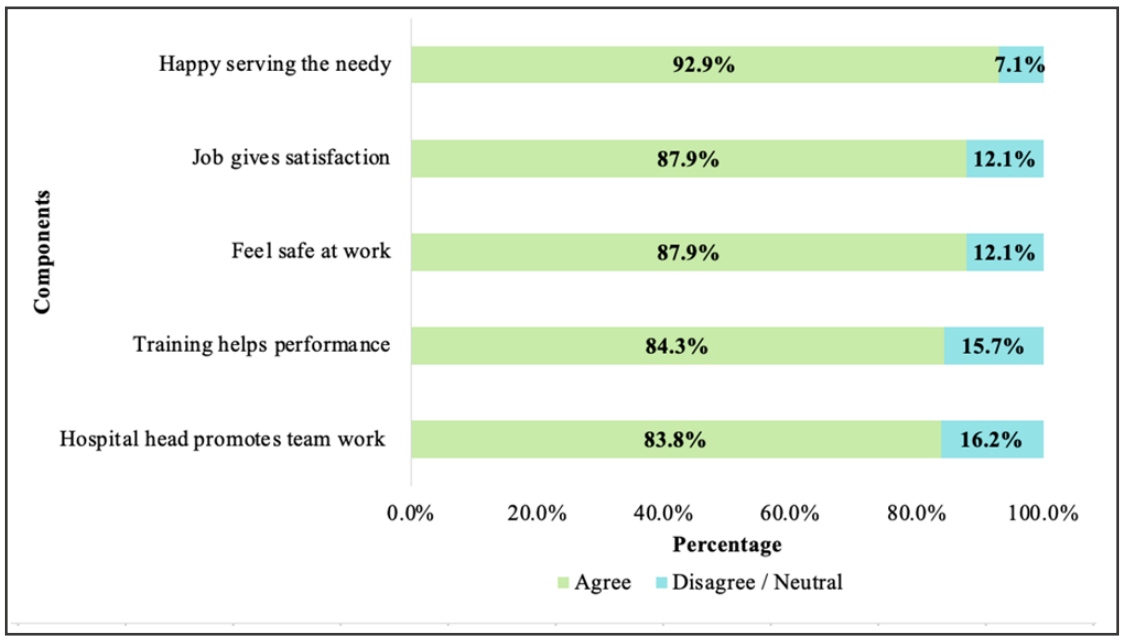
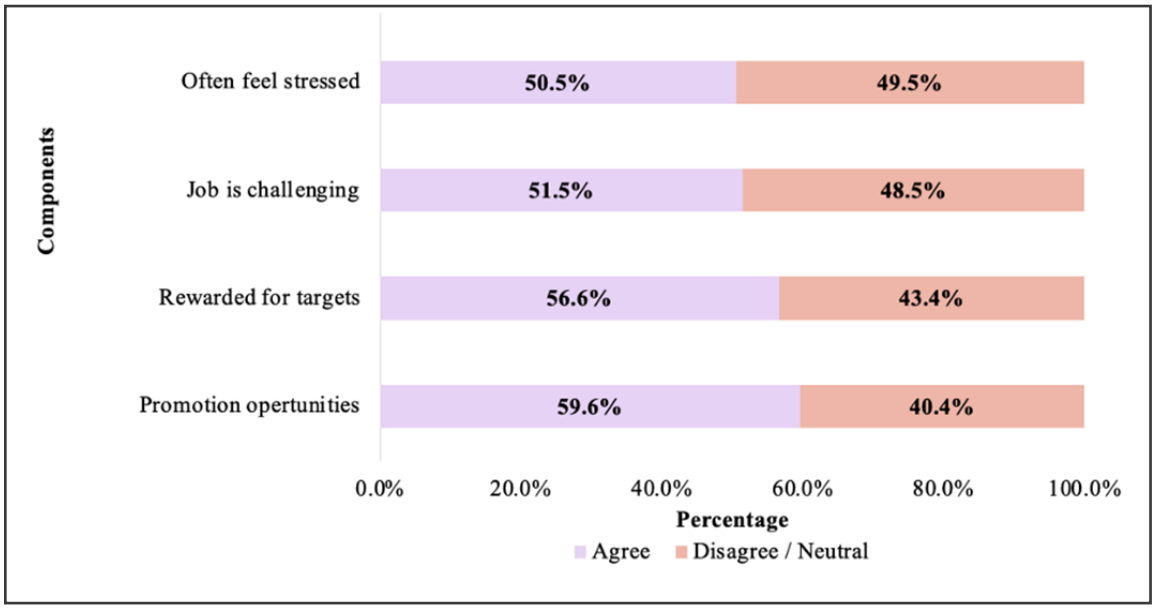


Fig 35: Negative contribution variables in job satisfaction:

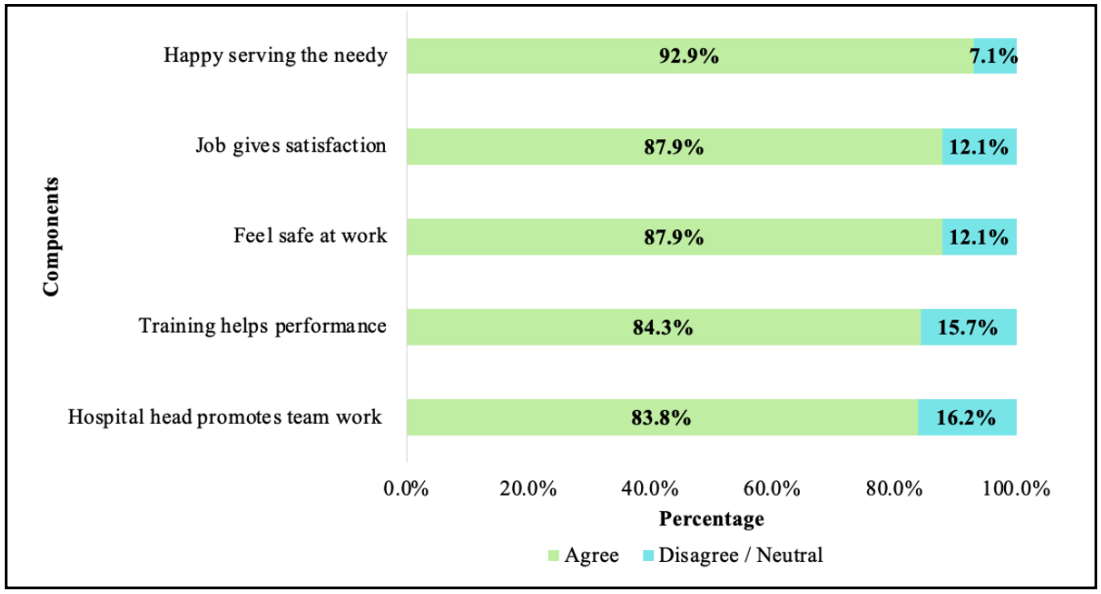


Employee satisfaction survey:

Statements with mostly agreed:

- I feel happy in providing healthcare service to the needy – 92.9%
- The job gives the most satisfaction – 87.9%
- I feel safe at work– 87.9%
- The training provided was very effective in the discharge of my duties – 84.3%
- The hospital Head encourages good teamwork – 83.8%

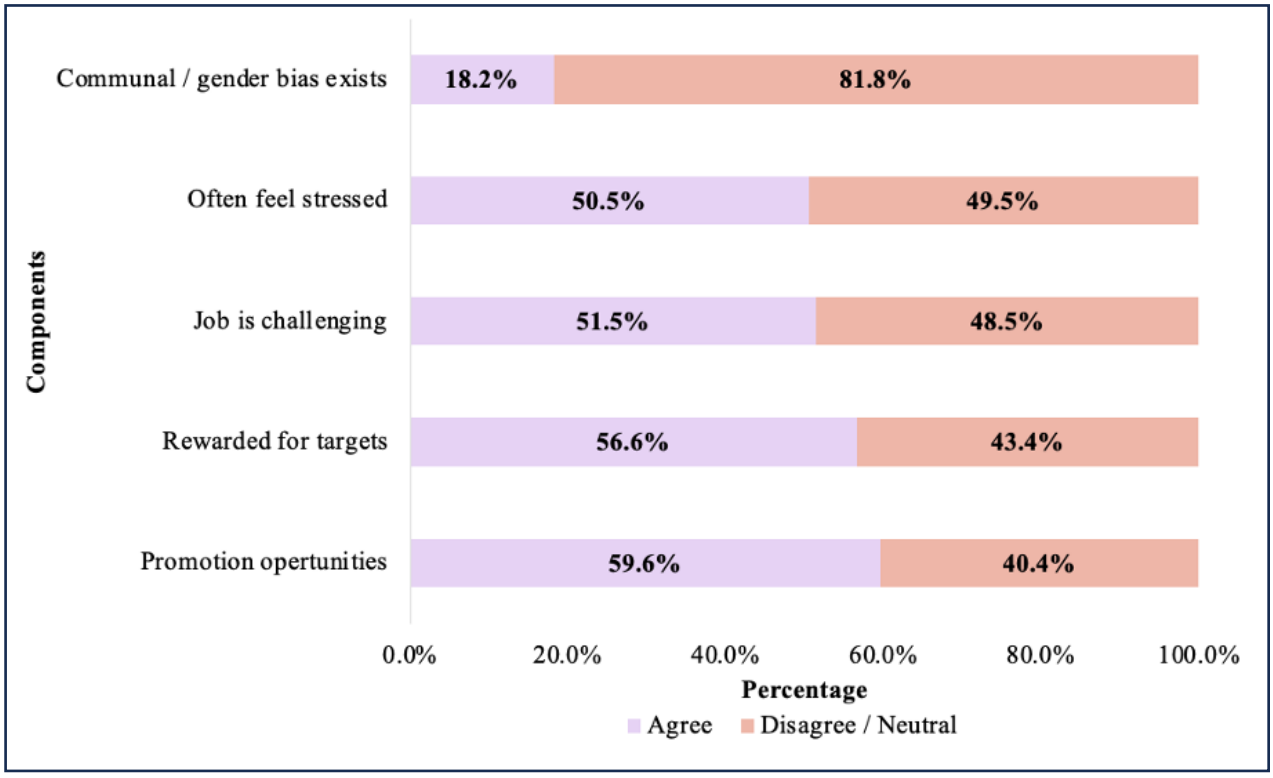
Figure 36: Distribution of components mostly agreed.



Statements with mostly disagreed/Neutral

- There is a communal and gender bias in my facility– 81.8% Disagree
- I feel my job is challenging – 48.5% Disagree
- I feel often stress at work – 49.5% Disagree
- I get instant recognition when I do good work in the hospital – 43.4% Disagree
- There are opportunities to get promoted– 40.4% Disagree

Figure 37: Bar chart of Components Mostly Disagreed.



Segregation of positive and negative aspects:

Positive Aspects:

1. **Job satisfaction and wellbeing:**
    - Providing healthcare to the needy brings happiness – 92.9% (Agree)
    - The job gives the most satisfaction – 87.9% (Agree)
    - Feeling safe at work – 87.9% (Agree)
    - My health is taken care of – 73.7% (Agree)
2. **Workplace Environment & Support**
    - Training provided was effective – 84.3% (Agree)
    - Hospital Head encourages teamwork – 83.8% (Agree)
    - Work environment is comfortable – 78.8% (Agree)
    - Superiors have realistic expectations – 79.8% (Agree)
    - Superiors encourage noticeable good work – 79.3% (Agree)
    - I get instant recognition for good work – 74.7% (Agree)

3. **Professional Development & Opportunities**
    - The hospital identifies my training requirements – 71.2% (Agree)
    - The job provides ample opportunities for self-development – 76.8% (Agree)
    - Employee benefits are satisfactory – 65.2% (Agree)
    - Basic job requirements are met – 63.1% (Agree)
    - Timely salary payments – 66.2% (Agree)

4. Workplace communal and gender bias

There is no minimal communal and gender bias – 18.2% (Agree)

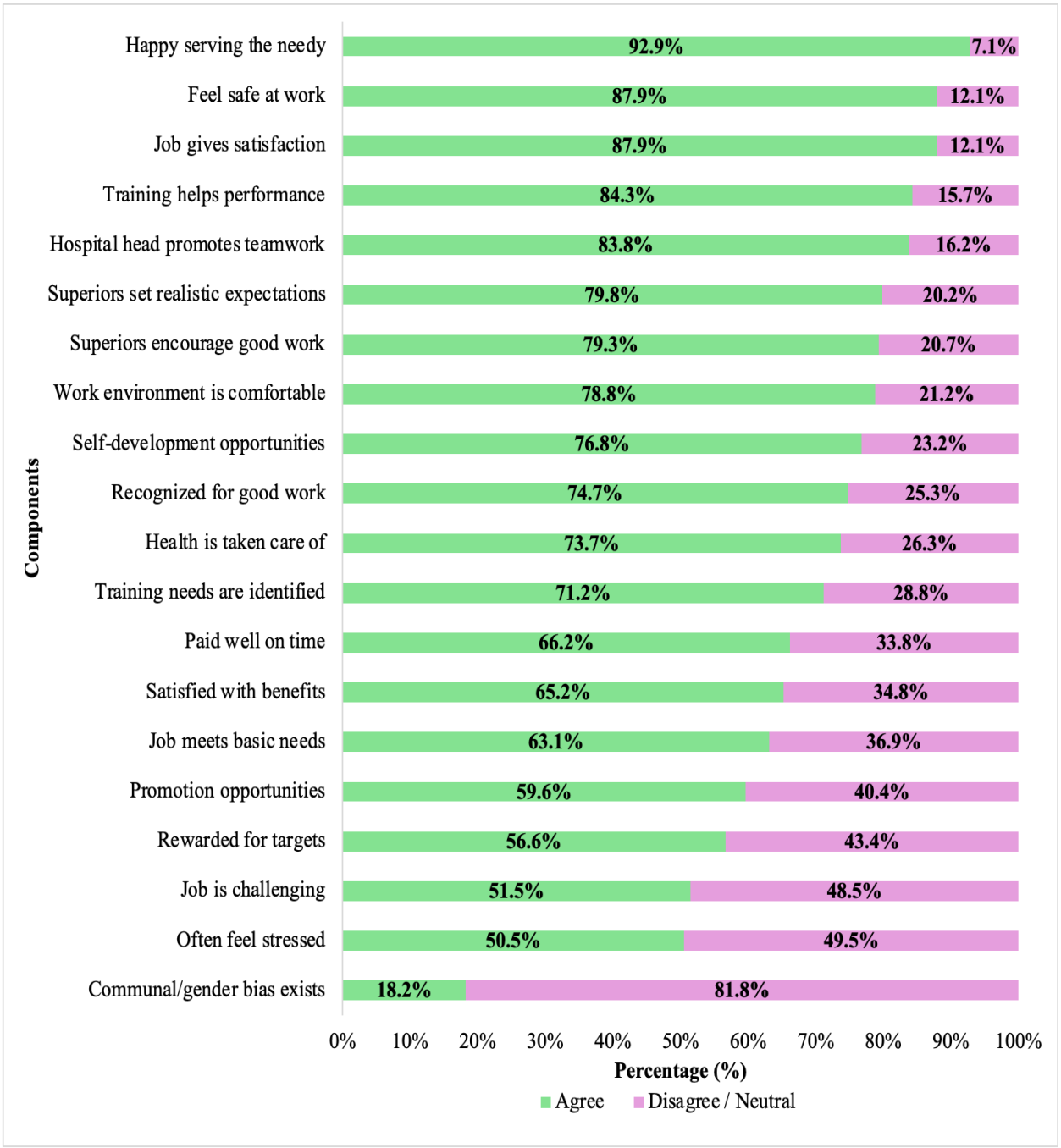
Negative aspects:

1. **Job Stress & Challenges**
    - High work-related stress – 50.5% agree, 49.5% disagree (mixed perception).
    - Job is challenging – 51.5% agree, and 48.5% disagree (mixed perception).
2. **Career Growth & Recognition Issues**
    - There are no opportunities to get promoted– 40.4% Agree.
    - I am not rewarded for achieving targets – 43.4% Agree.
3. **Workplace Comfort & Job Benefits**
    - My job does not meet all my basic requirements – 36.9% Agree
    - I am not satisfied with employee benefits – 34.8% Agree
    - I am not paid well on time - 33.8% Agree

Table 30: Distribution of Employee Satisfaction survey in the study population (N=198).

Components	Agree	Disagree / Neutral
All my basic requirements are met through my job	63.1%	36.9%
The work environment gives me comfort in my job	78.8%	21.2%
The hospital identifies my training requirements	71.2%	28.8%
I am rewarded for achieving my set targets	56.6%	43.4%
The job provides ample opportunities for self-development	76.8%	23.2%
There are opportunities to get promoted	59.6%	40.4%
There are a communal and gender bias in my facility	18.2%	81.8%
I get instant recognition when I do good work in the hospital	74.7%	25.3%
The job gives me the most satisfaction	87.9%	12.1%
My health is taken care of	73.7%	26.3%
The superior's expectations are realistic	79.8%	20.2%
My superiors encourage me when I do good noticeable work	79.3%	20.7%
I feel happy in providing healthcare service to the needy	92.9%	7.1%
You are well paid for the work on time	66.2%	33.8%
The training provided was very effective in the discharge of my duties	84.3%	15.7%
I feel my job challenging	51.5%	48.5%
I feel often stress at work	50.5%	49.5%
I am satisfied with employee benefits	65.2%	34.8%
I feel safe at work	87.9%	12.1%
The hospital Head encourages good teamwork	83.8%	16.2%

Figure 39: Mirror bar chart of Employee Satisfaction survey in the study population (N=198).



Employee satisfaction components across designation:

Job satisfaction:

- Pharmacists and Sanitary Workers report the highest job satisfaction, with 96% and 91.3% agreeing that their job gives them the most satisfaction, respectively.
- Doctors have a lower satisfaction rate at 70%, comparatively.

Effectiveness of Training:

- Pharmacists show 100% agreement that training was effective, indicating excellent support for their role.
- Staff Nurses also report high effectiveness at 87.6%, followed by doctors at 80%.

Superior Support:

- Pharmacists and Sanitary Supervisors feel highly encouraged by their superiors, with 96% and 94.4% agreement, respectively.
- Sanitary workers (89.1%) and staff nurses (79.1%) are also encouraged by their superiors
- Doctors have a lower rate of encouragement at 55%.

Comfort Level at Work Environment:

- Sanitary Supervisors (88.9%), sanitary workers (87%), and pharmacists (80%) report the highest comfort level in their work environment.
- Doctors and staff nurses have a moderate comfort level at 70% and 74.2%.

Opportunities for Self-Development:

- Pharmacists and Sanitary Workers report high opportunities for self-development at 88% and 80.4%, respectively.
- 72.2% of sanitary supervisors and 78.7% of staff nurses report there are opportunities for self-development at work
- Doctors have agreed to a lower rate at 50%, for self-development.

Recognition and Benefits:

- Pharmacists are highly satisfied with recognition and benefits at 84% and 96%, respectively.
- Nearly half of the sanitary supervisors (55.6%) and sanitary workers (50%) are not satisfied with the employee benefits, but they get instant recognition when they do good work, 83.3% and 89.1%

- 67.4% of Staff nurses reported that they get instant recognition, and most of them (73%) are satisfied with the employee benefits
- Doctors have lower satisfaction rates at 55% for recognition and 45% for benefits.

Promotion Opportunities:

- Pharmacists report 100% agreement on promotion opportunities, while Sanitary Workers and sanitary supervisors have a much lower rate at 26.1% and 38.9%.
- Doctors have a moderate rate at 70% of promotion opportunities.

Job Challenges and Stress:

- Staff Nurses find their job challenging at 75.3%, while Doctors report a lower rate at 55%.
- Doctors (65%) and staff nurses (64%) experience stress at work, which is higher than Pharmacists at 28%.

Table 31: Comparison of employee satisfaction survey across designation:

Questions	Designation				
	Doctor (n=20)	Pharmacist (n=25)	Sanitary Supervisor (n=18)	Sanitary Workers (n=46)	Staff Nurse (n=89)
Job gives me the most satisfaction					
Agree	14 (70%)	24 (96%)	15 (83.3%)	42 (91.3%)	79 (88.8%)
Disagree/Neutral	6 (30%)	1 (4%)	3 (16.7%)	4 (8.7%)	10 (11.2%)
The Training provided was very effective in the discharge of my duties					
Agree	16 (80%)	25 (100%)	12 (66.7%)	36 (78.3%)	78 (87.6%)
Disagree/Neutral	4 (20%)	0 (0%)	6 (33.3%)	10 (21.7%)	11 (12.4%)
My Superiors encourage me when					

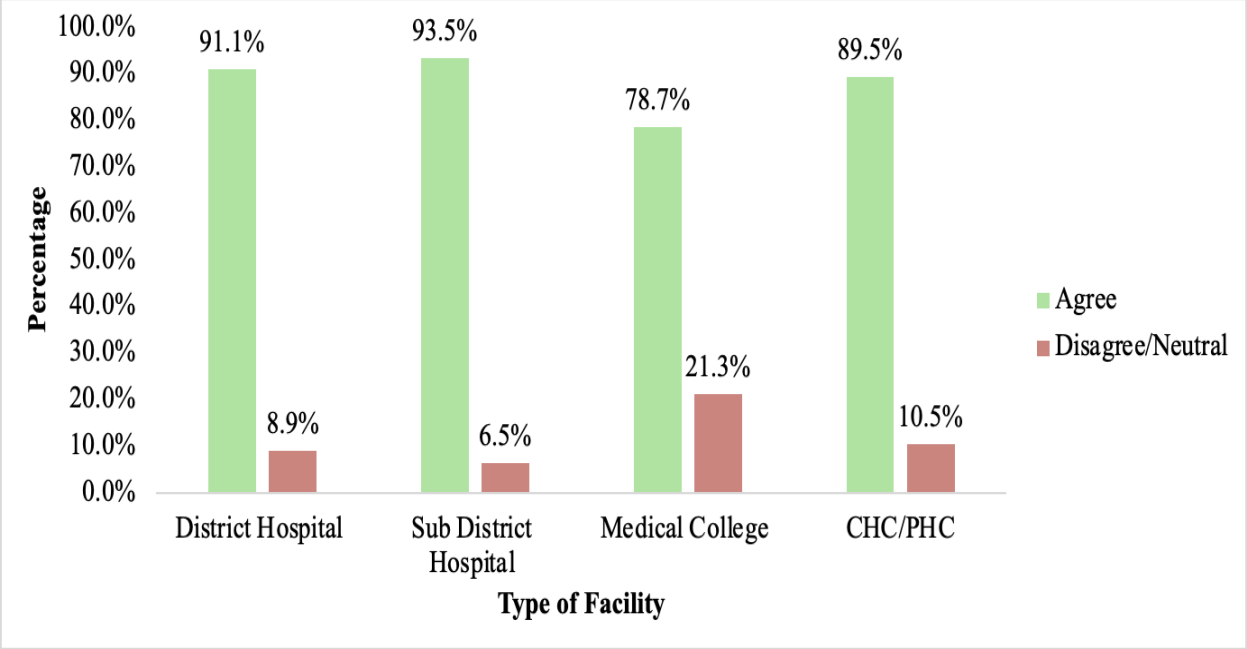
I do good noticeable work					
Agree	11 (55%)	24 (96%)	17 (94.4%)	41 (89.1%)	64 (71.9%)
Disagree/Neutral	9 (45%)	1 (4%)	1 (5.6%)	5 (10.9%)	25 (28.1%)
The Work environment gives me comfort in my job					
Agree	14 (70%)	20 (80%)	16 (88.9%)	40 (87%)	66 (74.2%)
Disagree/Neutral	6 (30%)	5 (20%)	2 (11.1%)	6 (13%)	23 (25.8%)
The Job Provides Sample Opportunities for Self-Development					
Agree	10 (50%)	22 (88%)	13 (72.2%)	37 (80.4%)	70 (78.7%)
Disagree/Neutral	10 (50%)	3 (12%)	5 (27.8%)	9 (19.6%)	19 (21.3%)
I get instant recognition when I do good Work in the Hospital					
Agree	11 (55%)	21 (84%)	15 (83.3%)	41 (89.1%)	60 (67.4%)
Disagree/Neutral	9 (45%)	4 (16%)	3 (16.7%)	5 (10.9%)	29 (32.6%)
The Hospital identifies my training requirements					
Agree	11 (55%)	15 (60%)	17 (94.4%)	31 (67.4%)	67 (75.3%)
Disagree/Neutral	9 (45%)	10 (40%)	1 (5.6%)	15 (32.6%)	22 (24.7%)

I am satisfied with employee benefits					
Agree	9 (45%)	24 (96%)	8 (44.4%)	23 (50%)	65 (73%)
Disagree/neutral	11 (55%)	1 (4%)	10 (55.6%)	23 (50%)	24 (27%)
There are opportunities to get promoted					
Agree	14 (70%)	25 (100%)	7 (38.9%)	12 (26.1%)	60 (67.4%)
Disagree/neutral	6 (30%)	0 (0%)	11 (61.1%)	34 (73.9%)	29 (32.6%)
I feel my job challenging					
Agree	11 (55%)	9 (36%)	5 (27.8%)	10 (21.7%)	67 (75.3%)
Disagree/neutral	9 (45%)	16 (64%)	13 (72.2%)	36 (78.3%)	22 (24.7%)
I feel often stress at work					
Agree	13 (65%)	7 (28%)	7 (38.9%)	16 (34.8%)	57 (64%)
Disagree/neutral	7 (35%)	18 (72%)	11 (61.1%)	30 (65.2%)	32 (36%)

Job satisfaction component across facilities:

- Respondents from district hospitals (91.1%), sub-district hospital (93.5%) and CHC/PHC (89.5%) were highly satisfied.
- Respondents from the medical college were moderately satisfied (78.7%)

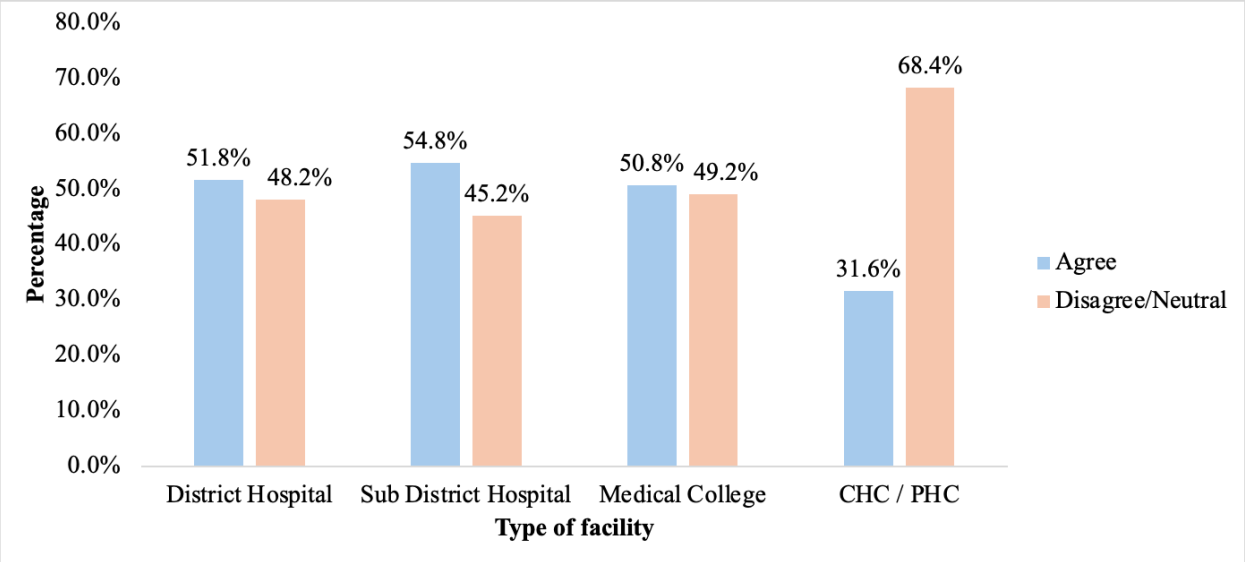
Figure 40: Comparison of "Jobs give me the most satisfaction" across type of facilities.



Job stress component across facilities:

- Majority of the respondents from CHC/PHC (68.4%) disagreed with the statement "I feel often stressed at work".
- Other facilities, such as the district hospital, the sub-district hospital, and the medical college show a mixed proportion (Figure 41)

Figure 41: Bar chart of job stress component across Facilities



Key findings:

- A majority of healthcare providers feel satisfied with their job (87.9%), workplace safety (87.9%), and happy providing healthcare services (92.9%).
- Most employees (73.7%) believe their health is well taken care of by the organization.
- The hospital effectively promotes teamwork (83.8%), provides a comfortable work environment (78.8%), and they are often recognized for their efforts (74.7%).
- Additionally, most employees are encouraged by their superiors (79.3%) with realistic expectations (79.8%) and encouragement for good work.
- Employees, 76.8% believe their job provides opportunities for self-development, 71.2% agree that their training needs are well-identified, 84.3% accept that the training provided is effective, and 81.8% report minimal gender or communal bias, indicating an inclusive workplace.
- However, concerns persist regarding limited promotion opportunities (40.4%), inadequate rewards for achievements **(**43.4%), and high job-related stress (50.5%), and challenges 51.5% showing a mixed perception of job demands.
- A notable portion (36.9%) also feels their basic job requirements are not fully met, indicating areas for improvement in career growth, benefits, and workload management.

- When comparing these job-related components across designations, pharmacists report the highest satisfaction across multiple parameters, doctors consistently have lower ratings in job satisfaction, superior encouragement, self-development, and benefits.
- Staff nurses experience significant job stress and challenges, highlighting a potential area for intervention.
- Sanitary workers and supervisors face issues with promotion opportunities and employee benefits, despite feeling encouraged and recognized.

Recommendations:

- As the findings suggest, most of the respondents are satisfied with the work, its environment, recognition, benefits, superior expectations, and training programs, there are concerns around job stress, challenges, and promotion opportunities, which need to be addressed.
- The above-mentioned areas have to be focused especially on doctors who reported poor satisfaction levels, a lower rate of encouragement, and experience stress at work by implementing the following recommendations:
    a. Acknowledge employees' good work and offer opportunities for career development to create a healthy workplace.
    b. Provide stress management training and employee assistance programs to help workers deal with difficult situations. Training should emphasize time management and relaxation exercises to alleviate symptoms.
    c. Ensure workload aligns with employee capabilities, provide professional development opportunities, and promote flexible scheduling to promote work-life balance.
    d. Ensure adequate staffing to minimize overtime and unpaid shifts, which correlate with moderate-to-severe stress
    e. Implement transparent promotion processes, as employees who feel recognized are more likely to perceive promotions as fair

f. Invest in employees' professional growth through workshops, training sessions, and mentoring programs to boost morale and reduce stress

- Addressing these areas will enhance employee well-being and retention.

Objective - 4

Case Sheet Audit

Case Sheet Audit

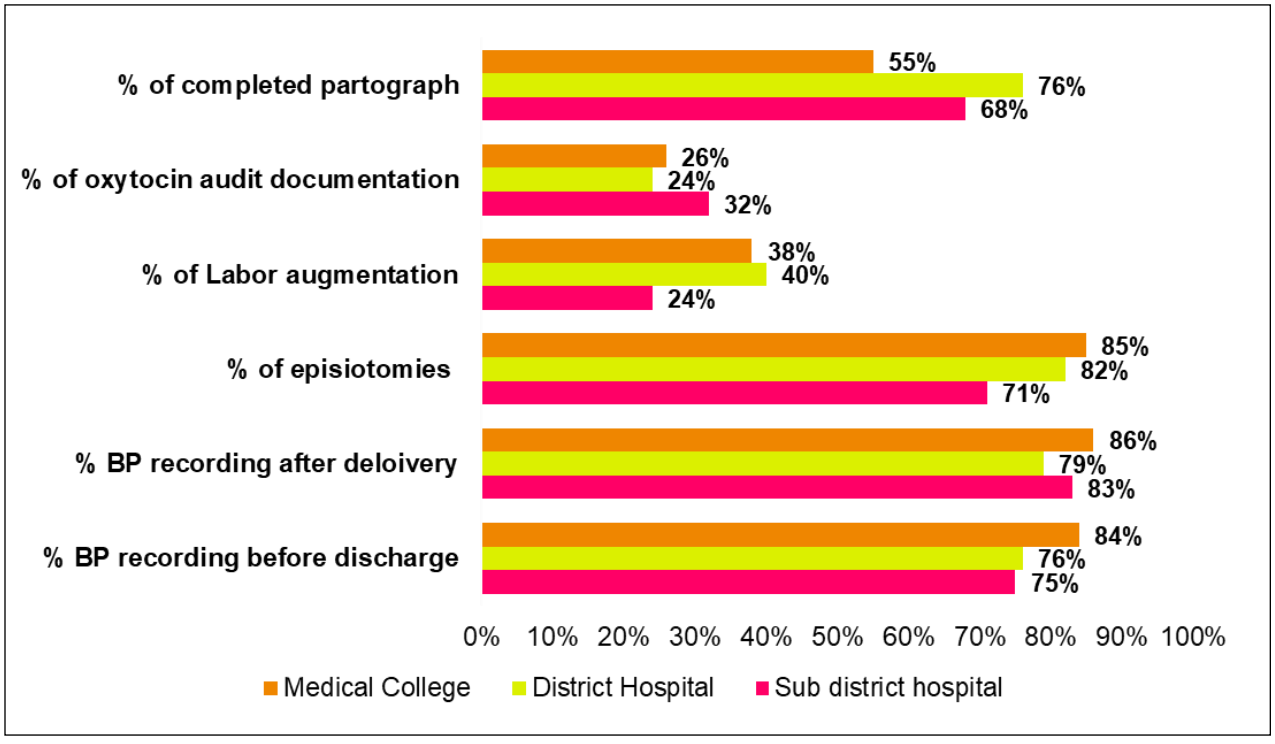
Conducting a clinical audit involves a systematic review of care against explicit standards. This process can be applied to case sheets in labor care to assess adherence to guidelines for documentation and interventions like partograph completion, oxytocin use, and episiotomies.

To ensure the use of case sheets for documenting standard Labor care metrics, a total of 532 case sheets were verified across facilities.

Table 32: Number of case sheets verified Facility wise

Facility	The total number of Labor natural case sheets verified
District hospital	165
Medical College	210
Sub-district hospital	157
Total	532

Figure 42: Percentage of Natural labor care metrics verified in each sheet, facility-wise



Key findings:

Partograph record:

- A partograph, a graphic record of labor progression, is documented in case sheets to monitor maternal and foetal health and to identify the potential complications for timely management
- As per the LaQshya guideline, partograph documentation is required in at least 90% of deliveries.
- As per the findings, compliance was significantly lower, with only 55% of case sheets in medical colleges, 68% in sub-district hospitals, and 76% in district hospitals including partograph records.

Oxytocin audit documentation:

- For a comprehensive oxytocin audit, data points like maternal age, parity, gestational age, total oxytocin administration time, maximum dose, and foetal heart rate tracing adequacy alongside, any complications and management strategies have to be documented.
- Oxytocin audit documentation was well maintained only in 32 % of sub-district hospitals and nearly in 24 to 26% of district hospitals and medical colleges.

Labor augmentation:

- Augmentation of labor aims at improving the efficiency of uterine contractions to reduce maternal and foetal adverse outcomes associated with prolonged labor**.**
- Documentation regarding the augmentation process was found in 40% of district hospitals, 38% of medical colleges, and 24% of sub-district hospitals

Episiotomies:

- Episiotomy a surgical incision of the perineum during childbirth, has to be documented in a case sheet, along with its type, indication, and any complication that occurred during the procedure.
- Documentation on episiotomy procedures was recorded in 85% of medical college case sheets, 82% of district hospital case sheets, and 72 % of sub-district hospital records.

BP before and after delivery:

- Regular BP monitoring before and after delivery (before discharge) is essential to detect

and manage hypertension-related complications.

- BP was documented before delivery in 85% of medical colleges, 83% of sub-district hospitals, and 79% of district hospitals.
- Post-delivery BP documentation was slightly lower, with 85% in medical colleges, 76% in district hospitals, and 75% in sub-district hospitals

Chapter - 6

Conclusion

The study highlighted various points for bringing improvement in the overall quality of maternal and child health.

- The infrastructure and facilities have shown a drastic improvement in the recent years. Several healthcare providers and mothers have highlighted infrastructure advancement as a key driving force behind the quality improvement initiatives of Tamil Nadu Maternal and newborn care.
- The Investment of government in enhancing and optimizing the public health care infrastructure by establishing CEMONC centres have positively contributed for increase in institutional delivery with preference for government health facilities as evidenced by increase in share of deliveries in public sector hospitals.
- The centralised drug supply mechanism through TNMSC has resulted in the timely and adequate supply off all essential drugs without stock out situations.
- The labor room and OT scores obtained by the visited facilities were significantly lower during study period than at the time of their certification. Hence there is a need to understand the sustainability of the quality initiative. LaQshya interventions need to go beyond the activities on the day of certifications. There was a visible gap observed in maintaining quality initiatives all year round.
- This study helped to shed light on the challenges and barriers acting at various levels hindering the progress to achieve high quality maternal care.
- Our mixed methods approach highlighted the key challenging thematic areas as data for improvement, knowledge and skills gap, motivation and team culture, staffing availability, workload and dedicated resources (especially in sub district hospitals).
- We have made significant progress in achieving respectful maternity care for all women by achieving highest scores in dignity and respect, Transparency of payments and privacy, confidentiality and trust.
- However, areas we need to improve include supportive care, as the birth companion practices are not uniformly implemented. There is scope for improvement in communication and autonomy, as many women feel they were not counselled adequately

on birthing positions, skin to skin contact and breastfeeding which are key components in ensuring quality maternal and newborn care.

- The implementation of birth companion practices has also seen several hurdles like lack of space for birth companions in overcrowded labor rooms, inadequate training of birth companion from antenatal period and hospital policies of allowing birth companion in labor room.
- There is also significant proportion of non-adherence to modern obstetric practices, like shaving perineum, offering fundal pressure and giving enema which are key areas affecting the respectful maternity care.
- The skill component assessment showed majority scoring below recommended score highlighting the need for skill-based refresher training at facility level. The Qualitative interviews highlighted that major reason for the lack of skill to be frequent and complete rotation of trained staffs and un even training practices in Dakshata and LaQshya guidelines across districts as well as facilities.
- Majority of healthcare workers were happy to serve the needy, while almost half the participants felt the work stressful and the job challenging. The qualitative component also highlighted motivation and team culture as challenging areas for LaQshya implementation.
- Facilities with good team culture, where the leaders are more involved, staying for a longer duration, recognise their staffs work, showed better performance. These facilities were also able to retain their staffs for longer duration in labor room without frequent rotation.
- Our study findings highlight that we have made significant progress in terms of quality improvement in various aspects. However, strengthening of several areas like appropriate data usage, Skills enhancement of healthcare providers, retaining of trained staffs for longer duration, rationalization of manpower within and between facilities, improving team culture, can help us to sustain the quality maternal and newborn care.
- There is a need to view LaQshya as not a program, but the provision of safe and routine maternal and Newborn health services with quality.

Chapter - 7

Recommendations

Recommendations for improvement in LR and OT practices:

- Assemble a team with diverse skills, including clinical, administrative, and quality improvement expertise. This team should be empowered to drive quality initiatives
- Implement frameworks like Plan-Do-Study-Act (PDSA) or 5 Sigma to systematically address quality gaps.
- Make sure, internal assessments and regular audits are done periodically and their corrective actions are considered for sustained quality enhancement
- Each facility should implement SOP, for all the key process and support services, ensuring consistency, compliance, and efficiency in operations.
- Periodic review of client satisfaction by external team and Quality improvement based on suggestions.

Recommendations for improving RMC:

Supportive care domain:

Birth companion practices:

- Improving Hospital policy for allowing of birth companion during delivery in the labor room. Studies have shown that presence of birth companion improves maternal and perinatal outcomes, including enhancing the physiological process of labor.
- She should be trained adequately in their role to provide emotional support during the antenatal period.
- Engaging all health care providers for the training of birth companions.

Newborn care practices:

- Zero separation policy for mother and newborn should be strictly adhered to by every facility.
- Improve the immediate skin to skin contact (KMC) of the baby in the labor room.
- Enhance practice of breastfeeding within 1 hour of birth for all newborns.

Communication and Autonomy:

Counselling practices:

- Improve patient-centered care by improving the communication skills of providers

- Inform Patients of their rights to have a birth companion and choice of alternate positions, empowering them to seek support during childbirth.
- Counselling during antenatal period should encompass all key aspects of childbirth like Choice of birth positions, movement, mobility, exercises, birth companion, immediate skin to skin contact and breastfeeding.
- Strict adherence to informed consent protocols is critical to uphold patient rights and satisfaction.

Modern Obstetric Practices:

- Enhance adherence to modern obstetric practices in the labor room. Despite several evidence and advancements fundal pressure, enema, and shaving of the perineum are still persistent. Stricter protocols to implement modern obstetric practices are essential.

Privacy and Confidentiality:

While the majority of the women experienced privacy measures during examinations and procedures, a notable minority did not have their privacy adequately maintained mainly in casualty and examination rooms. This indicates a need for stricter adherence to RMC standards for maintaining physical privacy.

Facilities and Environment:

- Implement stricter cleaning protocols, to ensure all areas are consistently very clean, especially toilets, and to ensure the availability of basic amenities. A poorly maintained environment can negatively impact maternal satisfaction and potentially affect health outcomes, emphasizing the importance of enhancing infrastructure and hygiene standards.
- The number of toilets needs to be increased with respect to the delivery load of the facility.
- Better Sanitation and disposal practices have to be implemented to prevent frequent blocking of toilets.
- Daily changing of clean bedsheets has to be strictly adhered to.
- The passbook mechanism which is followed for drugs, can be replicated for the procurement of clean linen from government supply through Khadi / Co-Optex.
- A bed with sufficient space should be provided to enhance comfort for patients.

Transparency in Payments:

- Implementing policies to prevent informal payments and ensure transparency in healthcare can build trust in the system. Immediate action is needed against tips for preparing delivery rooms, cleaning beds, and disclosing the baby's sex.
- Measures to reduce Out of pocket expenditure pertaining to food and water can be explored.

Recommendations to improve the knowledge and skills of HCPs in maternal and newborn care practices:

Skill based trainings:

- Skill-based continued refresher training, including drills and OSCE at the facility level under the guidance of the District Quality training team.
- Provide immediate feedback after assessments to help healthcare providers improve their skills effectively.
- All healthcare workers should be trained and certified in skill assessment to satisfy the eligibility criteria for working in a labor room.
- Conduct regular Knowledge and OSCE assessments to monitor progress and address specific gaps in knowledge retention across different facility types and designations.

Recommendations to alleviate job stress, and challenges

- As the findings suggest, most of the respondents are satisfied with the work, its environment, recognition, benefits, superior expectations, and training programs, there are concerns around job stress, challenges, and promotion opportunities, which need to be addressed.

Appreciations and awards:

- Monthly audit meetings should acknowledge and appreciate the efforts of health care team saving near miss cases.
- Facility level acknowledgements and awards by the leaders for well performing staffs and doctors will improve the motivation of health care providers

Mental health of employees:

- Implementing wellness programs, stress management workshops and employee assistance programs to help workers deal with difficult situations.
- Reducing workload by improving the amount of manpower in each shift thereby reducing burnout.

Leave policy:

- Improving leave policy for staffs and doctors working in emergencies. Providing additional offs for working in labor room compared to other wards can motivate staffs.

Recommendations to improve case sheet documentation:

- Strengthen adherence to LaQshya guidelines by enforcing mandatory partograph documentation
- Implement training programs for healthcare staff and standardize documentation processes to improve quality.
- Sensitizing and educating the staff, on the importance of correct record-keeping, especially recording partographs, oxytocin documentation, and labor augmentation, which helps in improved labor management.
- There should be a quarterly medical audit of the documentation procedure.

Recommendations to address challenges in LaQshya implementation

Data for improvement:

- Strengthening of Quality circles, enhancing data-driven Quality improvement initiatives.
- The District Quality training team should present data to the leaders and initiate QI improvement specific for each facility under the guidance of leaders (HOD/Dean/CMO/District Administrators)
- The number of records has been recently brought down from 104 to 40, however uniform supply of records to all facilities needs to be ensured.
- Timely sharing of data regularly in QI meetings with all staffs of the labor room, involving everyone in development of facility level action plan.

- Dedicated manpower by rationalizing existing data entry operators for data management.
- Transitioning to digital data tools for record maintenance.

Staff Availability and Workload:

- Rationalization of manpower proportionate to delivery load by reallocating trained staffs within and between facilities.
- Increasing the number of health care staffs posted per shift in labor wards according to delivery load.
- Implementing non-rotation policy in labor room as per standards. Staggered rotation of labor room staffs – retaining at least 50% of trained Staffs.
- In district and subdistrict hospitals to address shortage of specialty doctors, earmarking of seats based on specialty can be done in DMS counselling (specifically for Obstetrics, Pediatricians, Anesthetists and Radiologist)
- Strengthening conduct of deliveries in secondary referral centers to reduce the workload in tertiary care centers.

Sanitation:

- Increasing number of sanitary staffs proportionate to bed strength and hospital size.
- Increasing sanitary workers posted per shift in labor ward to ensure frequent cleaning and mopping.
- Increasing number of toilets keeping up with foot fall of patients and public.
- Maintaining proper flushing and adequate disposal system thereby reducing frequent toilet blockage.
- Provision for hiring sanitary staffs for District and sub district hospital
- Supply of quality chemicals for cleaning keeping up with defined standards in adequate quantity and training on chemical preparation, maintenance and bio medical waste management.

Chapter - 8

References

References:

1. Meh C, Sharma A, Ram U, Fadel S, Correa N, Snelgrove J, et al. Trends in maternal mortality in India over two decades in nationally representative surveys. BJOG. 2022 Mar;129(4):550–61.
2. Status of IMR and MMR in India [Internet]. [cited 2024 Dec 21]. Available from: https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1796436
3. Significant Decline in the Maternal Mortality Ratio (MMR) from 130 in 2014-16 to 97 per lakh live births in 2018-20: Dr. Mansukh Mandaviya [Internet]. [cited 2025 Mar 20]. Available from: https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1879912
4. Raina N, Khanna R, Gupta S, Jayathilaka CA, Mehta R, Behera S. Progress in achieving SDG targets for mortality reduction among mothers, newborns, and children in the WHO South-East Asia Region. Lancet Reg Health Southeast Asia. 2023 Oct 29; 18:100307.
5. Reduction in Maternal Mortality Rate [Internet]. [cited 2025 Mar 20]. Available from: https://pib.gov.in/pib.gov.in/Pressreleaseshare.aspx?PRID=1656242
6. vitalstatistics.pdf [Internet]. [cited 2025 Mar 20]. Available from: https://www.tn.gov.in/deptst/vitalstatistics.pdf
7. National Health Systems Resource Centre. Exemplars National Report [Internet]. New Delhi: National Health Systems Resource Centre; 2023 [cited 2025 Mar 25]. Available from: https://nhsrcindia.org/sites/default/files/2023-08/Exemplars%20National%20Report_Web.pdf
8. World Health Organization. Why we need to focus on quality care for women and newborns [Internet]. World Health Organization; 2021 May 4 [cited 2025 Mar 25]. Available from: https://www.who.int/news/item/04-05-2021-why-we-need-to-focus-on-quality-care-for-women-and-newborns
9. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. The Lancet Global Health Commission on High Quality Health Systems 1 year on: progress on a global imperative. Lancet Glob Health. 2020;8(1):e30–2.
10. World Health Organization. Standards for improving quality of maternal and newborn care in health facilities [Internet]. World Health Organization; 2016 [cited 2025 Mar 25]. Available from: https://www.who.int/publications/i/item/9789241511216
11. Ministry of Health and Family Welfare, Government of India. LaQshya: Labor Room Quality Improvement Initiative. New Delhi: National Health Mission; 2017. Available from: https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCH_MH_Guidelines/LaQshya-Guidelines.pdf.

12. World Health Organization. Companion of choice during labor and childbirth for improved quality of care [Internet]. Geneva: WHO; 2020 [cited 2025 Mar 21]. Available from: https://iris.who.int/bitstream/handle/10665/334151/WHO-SRH-20.13-eng.pdf
13. Making It Happen: Training health-care providers in emergency obstetric and newborn care [Internet]. ScienceDirect; [cited 2025 Mar 25]. Available from: https://www.sciencedirect.com/science/article/pii/S1521693415000668
14. World Health Organization. WHO recommendations: intrapartum care for a positive childbirth experience [Internet]. Geneva: World Health Organization; 2018 [cited 2024 Nov 12]. Available from: https://iris.who.int/handle/10665/260178
15. Cantor AG, Jungbauer RM, Skelly AC, Hart EL, Jorda K, Davis-O'Reilly C, et al. Respectful Maternity Care: Dissemination and Implementation of Perinatal Safety Culture To Improve Equitable Maternal Healthcare Delivery and Outcomes [Internet]. Rockville (MD): Agency for Healthcare Research and Quality (US); 2024 [cited 2024 Nov 8]. (AHRQ Comparative Effectiveness Reviews). Available from: http://www.ncbi.nlm.nih.gov/books/NBK599324/
16. World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience [Internet]. Geneva: World Health Organization; 2016 [cited 2024 Nov 2]. 152 p. Available from: https://iris.who.int/handle/10665/250796
17. Afulani PA, Phillips B, Aborigo RA, Moyer CA. Person-centred maternity care in low-income and middle-income countries: analysis of data from Kenya, Ghana, and India. The Lancet Global Health. 2018 Dec 13;7(1):e96.
18. BDSS Corp. Released 2022. coGuide Statistics software, Version 2.0, India: BDSS Corp. Available from: https://reapv2.coguide.in/
19. Quality of care [Internet]. [cited 2025 Mar 24]. Available from: https://www.who.int/teams/maternal-newborn-child-adolescent-health-and-ageing/quality-of-care
20. Lancet Commission Stresses Need for High-Quality Health Systems for SDGs [Internet]. SDG Knowledge Hub. [cited 2025 Mar 24]. Available from: https://sdg.iisd.org/news/lancet-commission-stresses-need-for-high-quality-health-systems-for-sdgs/
21. World Health Organization. Maternal health [Internet]. [cited 2025 Mar 21]. Available from: https://www.who.int/health-topics/maternal-health
22. Habib HH, Mwaisaka J, Torpey K, Maya ET, Ankomah A. Are respectful maternity care (RMC) interventions effective in reducing intrapartum mistreatment against adolescents? A systematic review. Front Glob Womens Health. 2023 Mar 1;4:1048441.

23. Bohren MA, Mehrtash H, Fawole B, Maung TM, Balde MD, Maya E, et al. How women are treated during facility-based childbirth in four countries: a cross-sectional study with labor observations and community-based surveys. The Lancet. 2019 Nov 9;394(10210):1750–63.
24. Diana Bowser, Knowledge assessment hleen Hill. Exploring Evidence for Disrespect and Abuse in Facility-Based Childbirth [Internet]. Heller School for Social Policy and Management; 2010 Sep p. 57.Availablefrom:https://collective.coloradotrust.org/wp-content/uploads/sites/2/2020/02/Respectful_Care_at_Birth_9-20-101_Final1.pdf
25. Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. PLoS Med. 2015 Jun 30;12(6):e1001847.
26. LaQshya-Guidelines.pdf [Internet]. [cited 2025 Mar 21]. Available from: https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCH_MH_Guidelines/LaQshya-Guidelines.pdf
27. Ansari H, Yeravdekar R. Respectful maternity care: A national landscape review. Natl Med J India. 2019 Sep 1;32:290.
28. Raval H, Puwar T, Vaghela P, Mankiwala M, Pandya AK, Kotwani P. Respectful maternity care in public health care facilities in Gujarat: A direct observation study. J Family Med Prim Care. 2021 Apr;10(4):1699–705.
29. Dasari P, Thulasingam M. Implementation of RMC at Tertiary Care Centre in South India [Internet]. 2021 [cited 2025 Mar 26]. Available from: https://osf.io/4ea5f
30. K S, Yadav A, Jeetu. Impact of respectful maternity care and its outcome in a childbearing woman. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2023 May 26;12(6):1610–5.

Chapter - 9

Annexures

Context Assessment Scoring Worksheet

LEADERSHIP SCORING

Consider **all the** conversations with leaders at this facility. When choosing a score, select only one box per question. If there were differences in how leaders responded, or how leaders responded compared with staff, mark "discrepancy" and describe the discrepancy in the scoring summary.

Implementation Plan

#	Area of Interest	3	Strength	2	Neutral	1	Challenge	Discrepancy
1	**Experience with improvement projects**	☐	**Extensive experience** 5+ years experience with many quality improvement (QI) projects or 5+ years work experience in QI.	☐	**Some experience** 2+ years experience with a few QI projects or <5 years work experience in QI.	☐	**No experience** Never tried a QI project.	☐
2	**Competing priorities**	☐	**No competing priorities**	☐	**Some competing priorities** Other programs or events could possibly make this new change unsuccessful.	☐	**Major competing priorities** Other programs or events will likely make this new change unsuccessful.	☐

3	**Interest in the Change**	☐	**Very interested** Staff see the change as a good solution to an important issue	☐ ☐	**Somewhat interested** Staff see this change as somewhat of a good solution or only somewhat of an important issue to address	☐	**Not interested** Staff do not see this change as a good solution, or do not think that the issue it addresses is very important	☐
4	**Program champion**	☐	**Strong champion assigned** Someone has been assigned to lead this change AND is highly capable to fulfill the role..	☐	**Any champion assigned** Someone has been assigned to lead this change but additional support may be needed for this person in this role.	☐	**No champion assigned** The initiative does not have a champion assigned yet.	☐
5	**Dedicated supplies, equipment and financing**	☐	**Sufficient resources** There are sufficient resources to implement this change.	☐	**Limited resources** Resources are limited, which may be a challenge as this change is implemented.	☐	**Major resource constraints** The change is unlikely to be successful due to lack of resources.	☐
6	**Staffing availability**	☐	**Sufficient staffing** There is sufficient staffing to implement this change.	☐	**Limited staffing** Staffing is limited, which may be a challenge as this change is implemented.	☐	**Major staffing constraints** The change is unlikely to be successful due to lack of staffing.	☐

Internal Environmental Culture

#	Area of Interest	3	Strength	2	Neutral	1	Challenge	Discrepancy
7	**Data for improvement**	☐	**Extensive data use** Staff have access to improvement data AND it is used to inform decisions on patient care.	☐	**Some data use** Staff have access to improvement data.	☐	**No data use currently** Staff do not have access to improvement data.	☐
8	**Staff motivation**	☐	**No concerns** Staff motivation is not a concern for this proposed change.	☐	**Concerns can be addressed as part of change** Staff Motivation is a concern but can be addressed as part of the roll-out of this proposed change.	☐	**Major concerns** Staff Motivation is a major concern that may make it impossible for this change to be successful.	☐
9	**Team Culture**	☐	**Regular recognition** Staff are regularly recognized for their work.	☐	**Limited recognition** Staff are recognized for their work during special circumstances.	☐	**No recognition** Staff are rarely recognized for their work.	☐

10	**Roles and Responsibilities**	☐	**Clear understanding** Staff understand their job descriptions.	☐	**Limited understanding** Staff have limited understanding of their job descriptions.	☐	**No understanding** Staff have no knowledge of their job descriptions.	☐
11	**Communication across the organization**	☐	**Extensive communication** Administration regularly shares information with staff (ex: monthly meetings).	☐	**Limited communication** Administration inconsistently shares information with staff (ex: only for special occasions).	☐	**Administration rarely shares information with staff**	☐

STAFF SCORING

Consider **all the** conversations with staff at this facility. When choosing a score, select only one box per question. If there were differences in how staff responded, or how leaders and/or patients responded, mark "discrepancy" and describe the discrepancy in the scoring summary.

Implementation Plan

#	Area of Interest	3	Strength	2	Neutral	1	Challenge	Discrepancy
12	**Interest in the Change**	☐	**Very interested** Staff see the change as a good solution to an important issue.	☐	**Somewhat interested** Staff see this change as somewhat of a good solution or only somewhat of an important issue to address.	☐	**Not interested** Staff do not see this change as a good solution, or do not think that the issue it addresses is very important.	☐
13	**Competing priorities**	☐	**No competing priorities**	☐	**Some competing priorities** Other programs or events could possibly make this new change unsuccessful.	☐	**Major competing priorities** Other programs or events will likely make this new change unsuccessful.	☐

14	**Intervention-specific knowledge/skills**	☐	**No additional training is needed**	☐	**Knowledge and skills gaps can be addressed as part of the Change** Knowledge and skills gaps could likely be addressed in a one-off training event.	☐	**Major knowledge and skills gap** Major knowledge and skills gaps exist that make it unlikely for the change to be successful without extensive training.	☐
15	**Dedicated supplies, equipment and financing**	☐	**Sufficient resources** There are sufficient resources to implement this change.	☐	**Limited resources** Resources are limited, which may be a challenge as this change is implemented.	☐	**Major resource constraints** The change is unlikely to be successful due to lack of resources.	☐
16	**Staffing availability**	☐ ☐	**Sufficient staffing** There is sufficient staffing to implement this change.	☐ ☐	**Limited staffing** Staffing is limited, which may be a challenge as this change is implemented.	☐ ☐	**Major staffing constraints** The change is unlikely to be successful due to lack of staffing.	☐
17	**Data for improvement**	☐	**Extensive data use** Staff have access to	☐	**Some data use** Staff have access to	☐	**No data use currently** Staff do not have access to	☐

			improvement data AND it is used to inform decisions on patient care.		improvement data.		improvement data.	

Internal Environmental Culture

#	Area of Interest	3	Strength	2	Neutral	1	Challenge	Discrepancy
18	**Incentives and payments**	☐	**Facility staff *are always* paid on time**	☐	**Facility staff *are sometimes* paid on time**	☐	**Facility staff *are not* paid on time**	☐
19	**Staff motivation**	☐	**No concerns** Staff motivation is not a concern for this proposed change.	☐	**Concerns can be addressed as part of change** Staff Motivation is a concern but can be addressed as part of the roll-out of this proposed change.	☐	**Major concerns** Staff Motivation is a major concern that may make it impossible for this change to be successful.	☐
20	**Roles and Responsibilities**	☐	**Clear understanding** Staff understand their job descriptions.	☐	**Limited understanding** Staff have limited understanding of their job descriptions.	☐	**No understanding** Staff have no knowledge of their job descriptions.	☐

21	**Team Culture**	☐	**Regular recognition** Staff are regularly recognized for their work.	☐	**Limited recognition** Staff are recognized for their work during special circumstances.	☐	**No recognition** Staff are rarely recognized for their work.	☐
22	**Communication across the organization**	☐	**Extensive communication** Administration regularly shares information with staff (ex: monthly meetings).	☐	**Limited communication** Administration inconsistently shares information with staff (ex: only for special occasions).	☐	**Administration rarely shares information with staff**	☐
23	**Communication about patient care**	☐	**Clinical information is *almost always* given to the right people at the right time**	☐	**Clinical information is *inconsistently* given to the right people at the right time**	☐	**Clinical information is *often not* given to the right people at the right time**	☐
24	**Workload**	☐	**Manageable Workload** Workload is manageable for staff on most days.	☐	**Varied workload: sometimes overwhelming** Workload is overwhelming on about half of the days.	☐	**Overwhelming Workload** Workload is consistently overwhelming.	☐

Community Engagement

#	Area of Interest	3	Strength	2	Neutral	1	Challenge	Discrepancy
25	**Facility-community relationship (generally)**	☐	**Positive** There is positive regard between facility staff and patients.	☐	**Neutral** Responses are not strongly positive or negative.	☐	**Negative** There is negative regard between facility staff and patients.	☐

ANNEXURE 2 - KNOWLEDGE ASSESSMENT TOOL
DAKSHATA

Pre/Post Training Knowledge Assessment Questionnaire
Name ……..
Designation…….. Name of the Facility……
Date…… Please answer all the questions (please circle the correct answer) Total time: 15 minutes

1. Which is the highest risk period for a mother and her newborn:
a. Antenatal period
b. Intrapartum and upto 48 hours of delivery
c. 48 hours to 42 days postpartum
d. 42 days to one year after delivery

2. Sunita, 8 months pregnant woman, came to your facility with severe headache. What will you do:
a. Ask her to wait and will look after 30 minutes
b. Immediately examine her, take BP and take appropriate facility specific actions
c. Will wait for duty doctor to come and attend
d. Refer to higher centre immediately

3. Partograph is a tool for:
a. Observing the progress of labor
b. Treating the complications of delivery
c. Monitoring the woman with Eclampsia
d. Keeping a record of the progress of delivery only

4. Which one is NOT an indication for giving antibiotics to pregnant women:
a. All pregnant women before the start of labor
b. Pregnant women with foul smelling vaginal discharge
c. To all mothers showing any sign of infection, at any stage of labor
d. Women in whom manual removal of placenta was done

5. Antenatal corticosteroids should be given to all pregnant women:
a. Coming for ANC
b. With asthma
c. With fetal distress
d. In true labor between 24-34 weeks of gestation

6. Select the correct statement about the use of Oxytocin during labor from the following-
Oxytocin is given:
a. Only to women having slow progress of labor
b. Only to the mothers having postpartum haemorrhage
c. To all mothers within one minute of delivery of baby
d. As an infusion with IV fluids to all women before delivery

7. As soon as a baby is born, which action needs to be done routinely for a normal baby:
a. Suction of the baby to support breathing
b. Keeping baby in warmer to maintain temperature
c. Drying the baby with warm towel
d. Immediately cutting the cord

8. A baby should be given bag and mask ventilation if he/she does not start breathing spontaneously:
a. After stimulation within 30 seconds of the birth
b. After stimulation for one minute after birth
c. After stimulation for two minutes after birth
d. Immediately after birth

9. What should be done routinely to reduce perineal tears in primigravida:
a. Episiotomy
b. Catheterization of bladder
c. Adequate perineal support
d. Enema

10. Injection vitamin K is given to which of the following babies:
a. Low birth weight babies
b. Preterm babies
c. All newborns
d. Only the babies born with bleeding problems

11. What is the loading dose (IV+ IM) of injection magnesium sulfate:
a. 20 g
b. 5 g
c. 14 g
d. 10 g

12. Appropriate management for low birth weight babies does NOT include which one of the following:

a. Special care and monitoring
b. Routine care and early discharge
c. Thermal management
d. Referral to a higher centre

13. Which of the following is NOT a sign of good attachment during breastfeeding:

a. Chin touching the breast
b. Mouth wide open
c. Less areola is visible on the upper side as compared to lower side
d. Lower lip turned outwards

14. Which of the following is correct about decontamination of instruments:

a. Immerse the used instruments in 0.5% chlorine solution after cleaning with tap water
b. Keep the instruments dipped in savlon solution
c. Immerse the used instruments in 0.5% chlorine solution for 10 minutes
d. No need to decontaminate if autoclaving is done

15. Match the pair:

a. Yellow bag 1. General waste
b. Red bag 2. Anatomical waste
c. Puncture proof 3. Recyclable contaminated plastic
d. Black bag 4. Sharps

ANNEXURE 3 - Employee Satisfaction Survey Questionnaire & Attributes

Basic Details

1. **Category of Staff:**
   - ☐ Doctor
   - ☐ Staff Nurse
   - ☐ Technician
   - ☐ Office Staff
   - ☐ Hospital Worker
   - ☐ Sanitary Worker

2. **Age (in numbers):** _____

3. **Years of Experience in Hospital (in numbers):** _____

4. **Education:**
   - ☐ Postgraduate (PG)
   - ☐ Undergraduate (UG)
   - ☐ Diploma
   - ☐ S.S.L.C.

5. **Name of the Health Facility:** _____

6. **Type of Health Facility:**
   - ☐ Medical College Hospital
   - ☐ District Hospital
   - ☐ Sub-District Hospital
   - ☐ Community Health Centre

7. **District:** _____

Work Environment & Job Satisfaction

(Please select one option for each statement)

8. The work environment gives me comfort in my job.
   - ☐ 5 - Fully Agree
   - ☐ 4 - Mostly Agree
   - ☐ 3 - Partially Agree
   - ☐ 2 - Fairly Agree
   - ☐ 1 - Disagree
   - ☐ 0 - No Comments

9. All my basic requirements are met through my job.
   - ☐ 5 - Fully Agree
   - ☐ 4 - Mostly Agree
   - ☐ 3 - Partially Agree
   - ☐ 2 - Fairly Agree
   - ☐ 1 - Disagree
   - ☐ 0 - No Comments

10. The job provides ample opportunities for self-development.
    - ☐ 5 - Fully Agree
    - ☐ 4 - Mostly Agree
    - ☐ 3 - Partially Agree
    - ☐ 2 - Fairly Agree
    - ☐ 1 - Disagree
    - ☐ 0 - No Comments

11. The hospital identifies my training requirements.
    - ☐ 5 - Fully Agree
    - ☐ 4 - Mostly Agree
    - ☐ 3 - Partially Agree
    - ☐ 2 - Fairly Agree
    - ☐ 1 - Disagree
    - ☐ 0 - No Comments

12. I am rewarded for achieving my set targets.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

13. I get instant recognition when I do good work in the hospital.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

14. There are opportunities to get promoted.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

15. There is any communal and gender bias in my facility.

☐ 5 - Disagree
☐ 4 - Fairly Agree
☐ 3 - Partially Agree
☐ 2 - Mostly Agree
☐ 1 - Fully Agree
☐ 0 - No Comments

16. The superior’s expectations are realistic.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree

☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

17. The job gives me the most satisfaction.
☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

18. My health is taken care of.
☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

19. I am well paid for the work on time.
☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

20. My superiors encourage me when I do good noticeable work.
☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

21. I feel happy providing healthcare services to the needy.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

22. I feel often stressed at work.

☐ 5 - Disagree
☐ 4 - Fairly Agree
☐ 3 - Partially Agree
☐ 2 - Mostly Agree
☐ 1 - Fully Agree
☐ 0 - No Comments

23. The training provided was very effective in the discharge of my duties.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

24. The hospital head encourages good teamwork.

☐ 5 - Fully Agree
☐ 4 - Mostly Agree
☐ 3 - Partially Agree
☐ 2 - Fairly Agree
☐ 1 - Disagree
☐ 0 - No Comments

ANNEXURE 4: RESPECTFUL MATERNITY CARE
INTERVIEW WITH RECENTLY DELIVERED POSTNATAL MOTHERS

(DISCHARDED MOTHER AT EXIT POINT, PN WARD, SNCU WARD)

Consent given: _____

Date of Interview: _____

Start time: _____

End time: _____

Interviewed by: _____

General information

S.NO	Particulars	
	Name of the Facility	
	Type of the facility	MCH / DH / SDH / CHC / UCHC
	Facility code with address	
	District	

1	Personal Details		
1.1	What is your age? (For mother)		
1.2	What is your education status? 1-Illitrate 2- Primary school 3- High School 4- Secondary School 5-Under graduate 6-Post graduate		
1.3	What is your occupation?		
	Professional / Semi-professional / Clerical work / Skilled work / Semi skilled work / Unskilled work / Unemployed		
1.4	Pregnancy Info:		
1.4.1	Gravida ___ Para ___ Live birth ___		
1.5	If P2 /more, were your previous children born here?	1-Yes 0-No	
1.6	Have you been here for any other illness?	1-Yes 0-No	
1.7	Length of stay in hospital	_____ Days	
1.8	How far away do you live from the hospital?	___ Km	
1.9	How long did it take to reach the hospital?	__ Hrs __ Min	

S.NO	DOMAIN 1 – DIGNITY AND RESPECT	Score
2.1	Time taken by the doctor to attend you after your arrival in the facility 0 Very short, 1 Somewhat short, 2 Somewhat long, 3 Very long	
2.2	Did you feel the doctors, nurses or other health providers shouted at you, scolded, insulted, threatened? 0 No,never, 1 Yes, once, 2 Yes, a few times	
2.3	Did you feel the doctors, nurses or other health providers beat you?	
2.4	During your time in the health facility, were you treated differently because of any personal attribute like your age, marital status, number of children, your education, wealth religion/caste. Your connection with the facility, differently abled status or something like that? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
2.5	Did you feel you were treated with respect and dignity while you were in hospital? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
	DOMAIN 2- COMMUNICATION AND AUTONOMY	
3.1	Did the service provider greet you and introduce you with your name? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
3.2	Did the doctors, nurses, or other staff at the facility ask your permission/consent before doing procedures and examinations on you by explaining them? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
3.3	Did the doctors or nurses inform you of the examination findings in simple language you understand? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
3.4	Did the doctors, nurses other personnel in the hospital behave well with you and your attendee?	

	0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
3.5	Did the doctors, nurses, and other personnel in the hospital answer your questions correctly?	
3.6	Are you oriented about birthing positions during normal delivery?	
3.7	Were you provided breastfeeding counseling and support after childbirth? 0 No, never, 1 Yes just informed, 2 Yes explained well, 3 Yes explained and supported	
3.8	Are you oriented about skin-skin contact after birth?	
3.9	Did signboards placed in a hospital, help you to reach places?	
3.9A	Have you seen the following information boards? a. SUMAN b. breastfeeding c. family planning d.KMC e. other programs	
3.9b	Where have you seen those information boards? 1. entrance 2. waiting hall 3. Labor word 4. maternity OT 5. A.N WARD 6. P.N WARD 7. S.N.C.U 8. OTHERS	
3.10	Have you been able to understand the information provided in the information boards?	
3.11	Did the doctors or nurses clearly explained or instructions given during consultation and discharge? 0 No, never, 1 Yes, once, 2 Yes, a few times, 3 Yes, many times	
	DOMAIN 3 -SUPPORTIVE CARE	
4.1	During your labor, did the staff verbally encouraged or reassured you? 0 No, never, 1 Yes, once, 2 Yes, a few times, 3 Yes, many times	
4.2	Was any birth companion (female relative) allowed to be with you during labor and child birth? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time 4 I did not want someone to stay with me	

4.3	Do you feel the service providers responded to you promptly when you calls for their help? 0 No, never, 1 Yes, for a short time, 2 Yes, most of the time, 3 Yes, all the time	
	DOMAIN 4-PRIVACY AND CONFIDENTIALITY, TRUST	
5.1	Was the privacy observed during examination screens or drapes provided? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time	
5.2	During labor, have you been observed privately using screens or drapes?	
5.3	Do you feel like your health information was or will be kept confidential at this facility? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time, 3 Yes, all the time	
	DOMAIN 5 - FACILITY AND ENVIRONMENT	
6.1	General cleanliness/hygiene of the building, corridor, and premises 0 Very dirty, 1 Dirty, 2 Clean, 3 Very clean	
6.2	Cleanliness of patient, wards/rooms 0 Very dirty, 1 Dirty, 2 Clean, 3 Very clean	
6.3	Cleanliness of bed sheets 0 Very dirty, 1 Dirty, 2 Clean, 3 Very clean	
6.4	Changing of bed Sheets 0 No never, 1 very rarely 2 once in two days 3 daily	
6.5	Cleanliness of labor ward /room 0 Very dirty, 1 Dirty, 2 Clean, 3 Very clean	
6.6	how was your labor bed	
6.7	labor bed and bedsheet cleanliness	
6.8	Availability of running water, functional WC and hand - washing facilities in toilets 0 No, never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time	
6.9	Availability of 24/7 safe and clean supply of water 0 No, never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time	
6.10	how many times a day, toilets were cleaned	
6.11	Do you find the amount of space/bed provided for the mother and baby to stay adequate? 0 Not adequate, 1 adjustable 2 adequate	
6.12	have you been forced to share your bed with other mothers in the room	

	DOMAIN 6 – PREDICTABILITY AND TRANSPARENCY OF PAYMENT		
7.1	Did you have to pay for any medications / diagnostic facilities/ any other out-of-pocket expenses.		
	1.Laboratory	0- No 1-Yes	
	2.Radiology	0- No 1-Yes	
	3.Ultrasound	0- No 1-Yes	
	4.To receive Blood	0- No 1-Yes	
	4.Cleaning bed	0- No 1-Yes	
	5.To tell the sex of newborn baby	0- No 1-Yes	
	6.Sanitary pad	0- No 1-Yes	
	7.Drinking water	0- No 1-Yes	
	8.Sifting the mother and baby	0- No 1-Yes	

SKIN-TO-SKIN CONTACT	
8.1	Was the baby placed on the mother's abdomen immediately after birth? 0 No, never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
8.2	Did they tell about the baby's weight 0 No, never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
8.3	Were you advised by the nurse or anyone else to keep the baby naked on your chest next to your skin? 0 No,never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
8.4	Baby and mother not separated for routine care 0 No,never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
8.5	Shifting the mother & child together to Wards / SNCU 0 No,never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
8.6	Did they clean the baby with clean towel 0 No,never, 1 Yes, a few times, 2 Yes, most of the time,3 Yes, all the time
BREAST-FEEDING	
9.1	Did you breastfeed your baby immediately after delivery within one hour? 0 No never 1, Yes

9.2	Before discharge, were you told about signs of danger to you and your baby's health? 0-No 1-Yes

Birth companion	
Relation with the mother (10.1)	……
Birth companion allowed during (10.2) 1.Delivery	0- No 1-Yes
2.After Delivery	0- No 1-Yes
Length of stay in hospital (10.3)	
Did you receive any orientation/training on role of birth companion before entering to the labor ward? (10.4)	0- No 1-Yes
If yes, when did you receive orientation training (10.4a) 1.During pregnancy	0- No 1-Yes
2. Before entering the labor ward	0- No 1-Yes
If yes, who oriented you ?(10.4 b)	0- No 1-Yes
Did they provide chair to sit in labor ward (10.5)	0- No 1-Yes
Whether shelter for night available within the premises? (10.6)	0- No 1-Yes
Do you following facilities in your hospital (10.11) 1. Food' 2. Drinking water 3. Toilet	 0- No 1-Yes 0- No 1-Yes 0- No 1-Yes

Outdated practices		
11.1	Did they shave your ??	0- No 1-Yes
11.2	Enema provided	0- No 1-Yes
11.3	Episiotomy done	0- No 1-Yes
11.4	Did induce pain using medicine	0- No 1-Yes
11.5	Fundal pressure	0- No 1-Yes
	end time	0- No 1-Yes