



RDBP JAIPURIA HOSPITAL

COMPREHENSIVE OPERATIONAL & QUALITY IMPROVEMENT



KOMAL GUPTA | ROLL NO. 1980 | MBA HM 29 | BATCH 2024-2026

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BRIEF HISTORY

- ✓ Established on 19th May 1986 by Shri Hari Dev Joshi .
- ✓ Began as a 100-bedded facility & has since expanded to a 470- bedded multi-specialty hospital in Jaipur, Rajasthan.
- ✓ Affiliated with the Rajasthan University of Health Sciences.

KEY DEPARTMENTS:

- Emergency & Trauma Center
- CSSD
- Pediatrics, Gynecology & Obstetrics
- Ophthalmology, Med. Surgery, ENT, Lab, Radiology, Sub Store.
- Medical Record Room.

MISSION

- To provide high quality, affordable Healthcare services, focusing on free care for Rajasthan residents & affordable for non resident, ensuring excellence & Compassion in patient care.

VISION

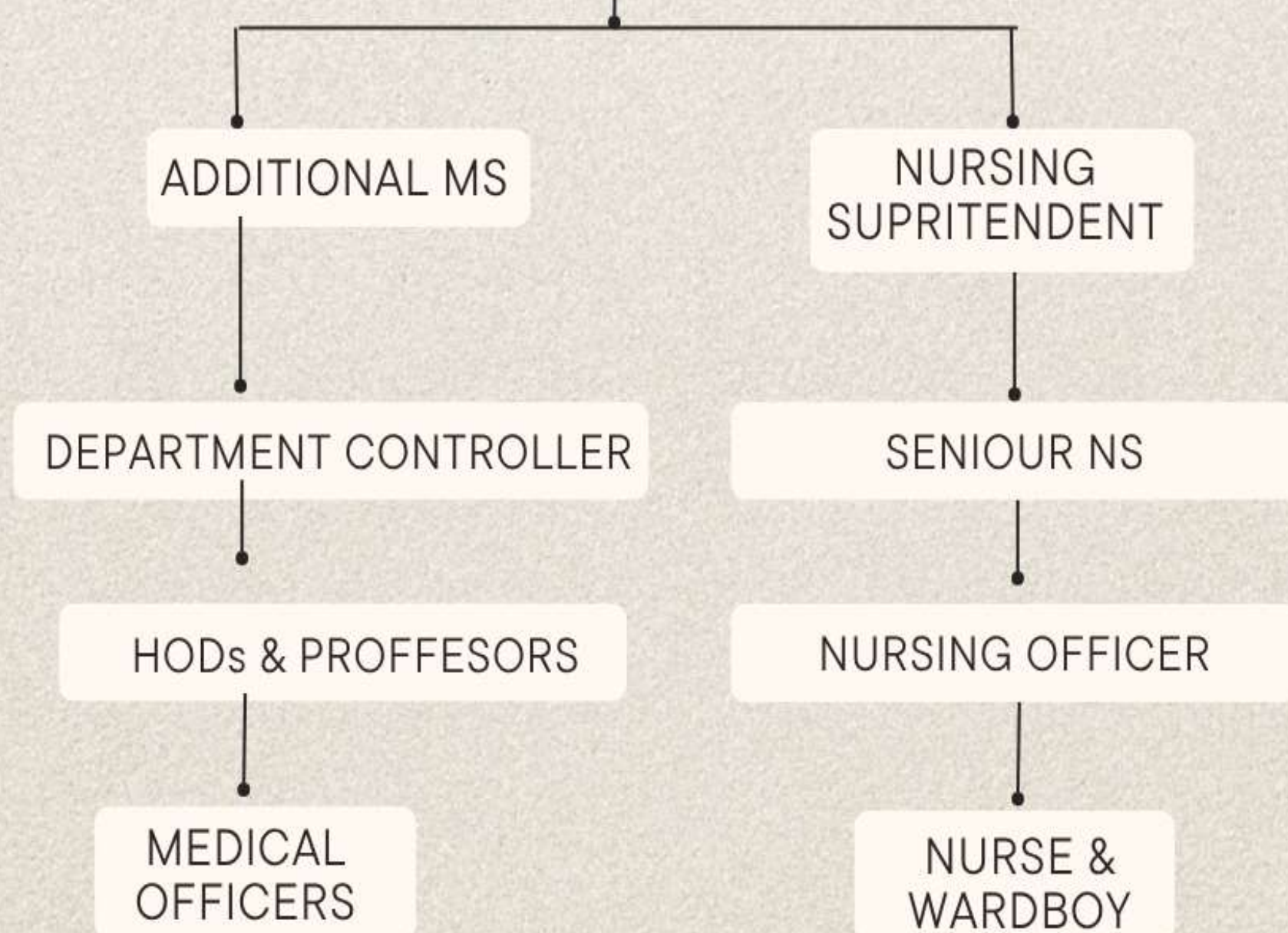
- To be a leading healthcare organization recognize for its exceptional care innovative treatments & dedicated services offering holistic solution that improve the well being of an individual & community.

CORE VALUE

- **T.R.E.A.T**
- Teamwork, Respect, Excellence, Accountability, Trust

ORGANOGRAM

MEDICAL SUPRITENDENT



STUDY 1: QMS Efficiency in OPD: Improving Patient Flow & EHR Integration with ABHA & RajUpchar Application. *(Incorporating Wristband Technology)*

- Jaipuria Hospital uses IHMS software for OPD, registration, and MAA Yojana/RGHS scheme management.

OBJECTIVE

- Reduce waiting time through online token and digital registration.
- Integrate ABHA & Rajupchaar application with QMS & EHR.
- Determine Key Performance Indicators to assess QMS effectiveness.
- To provide suggestions to reduce the gaps identified.

RESEARCH METHODOLOGY

Location Of Study	: RDBP Jaipuria Hospital, Jaipur
Study Design	: Cross Sectional Study
Study Period	: 40 Days
Sample Size	: 600 Patients
Type Of Data	: Primary Data
Data Collection Procedure	: Through Google Form Survey & Direct Interaction
Data Collection tool	: MS Excel

SWOT ANALYSIS

STRENGTH

- IHMS software already in place for digital record-keeping.
- Government-backed schemes like MAA Yojana, ABHA & RajUpchaar already integrated.
- Strong patient footfall, ensuring a good sample size for research.
- Willingness of management to adopt innovations (Single Window system, token process, wristband technology).

WEAKNESS

- Shortage of trained staff to manage new systems.
- Low initial awareness and adoption of digital tools among patients.
- Lack of infrastructure for proper waiting areas.
- Manual processes still dominant in peak times.

OPPORTUNITY

- Growing adoption of digital health initiatives like ABHA, RajUpchaar, and Ayushman Bharat.
- Government emphasis on EHR integration and funding support for digital transformation.
- Public awareness campaigns increasing acceptance of digital health.
- Expansion of healthcare demand in Jaipur due to population growth.

THREAT

- **Direct competition from RHL Hospital located right in front of Jaipuria Hospital**, diverting patient flow.
- Cybersecurity risks and data privacy concerns with digital health data.
- Patient reluctance to switch from manual to digital systems, especially older age groups.
- Technical failures (server downtime, internet issues) affecting QMS/EHR.

TOWS MATRIX

S-O Strategies (Using Strengths to Maximize Opportunities)

- Leverage IHMS software and RajUpchar/ABHA to fully digitize OPD flow.
- Use hospital's strong patient base for awareness campaigns and pilot trials.
- Implement **Single Window with laser printers** to optimize existing digital tools.

W-O Strategies (Overcoming Weaknesses by Using Opportunities)

- Conduct **training program** for staff to improve capacity.
- Launch **patient education drives** on online tokens and ABHA linking.
- Use **government funding & Trust Resources** to enhance infrastructure (Ex. waiting halls).

S-T Strategies (Using Strengths to Mitigate Threats)

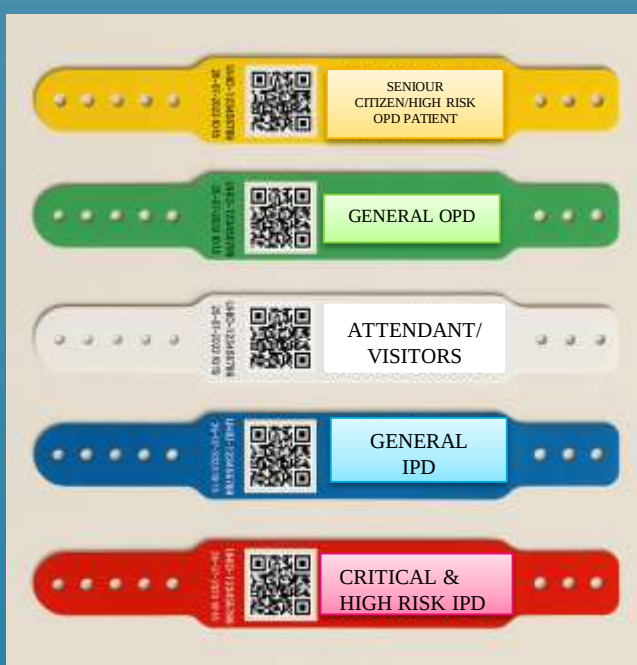
- Use government-backed systems (ABHA, RajUpchar) to ensure **data security and compliance**.
- Continuous **technical support and backup systems** for IHMS and tokens.
- **Strengthen data security protocols** leveraging current digital systems to build patient trust.

W-T Strategies (Minimizing Weaknesses and Avoiding Threats)

- Develop **step-by-step manuals and help desks** to overcome resistance to change.
- **Gradual phased implementation** to reduce disruption during peak hours.
- **Reduce dependency on manual processes** by automating token issuance and patient tracking.

Smart Wristband Integration for Patient Tracking and Queue Management

FEATURES	DETAILS
Color Coding	YELLOW -SENIOUR CITIZEN/HIGH RISK OPD GREEN -GENERAL OPD WHITE -ATTENDANT /VISITORS BLUE -GENERAL IPD RED -CRITICAL/HIGH RISK IPD
Wristband Technology	Barcodes linked to UHID, integrated with IHMS Portal for digital records.
Objective	Enhance security, reduce unauthorized access, control overcrowding.
Expected Impact	Reduced waiting time: Fast access to records. Improved infection control: Less visitors. Better security: Controlled access. Efficient operations: Reduced delays.
Integration with QMS	Compléments Queue Management System (QMS) for efficient patient movement.

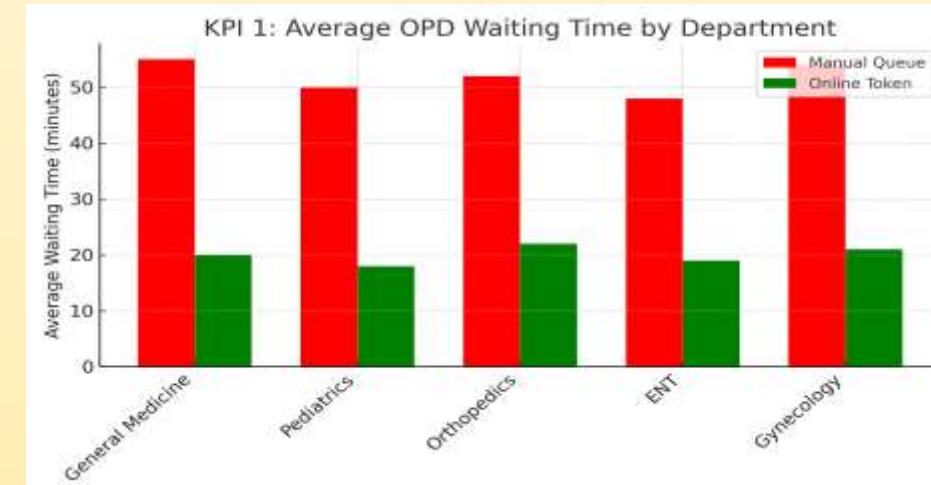


Key Performance Indicators (KPIs)

Based on daily OPD footfall of 2000–2500 patients:

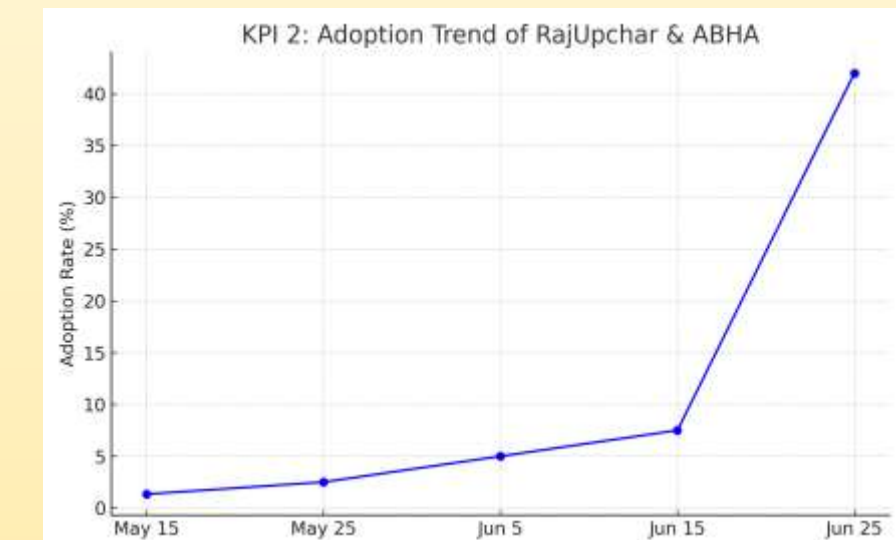
1. OPD Average Waiting Time:

- Manual Queue: 45–60 minutes
- Online Token: 15–20 minutes



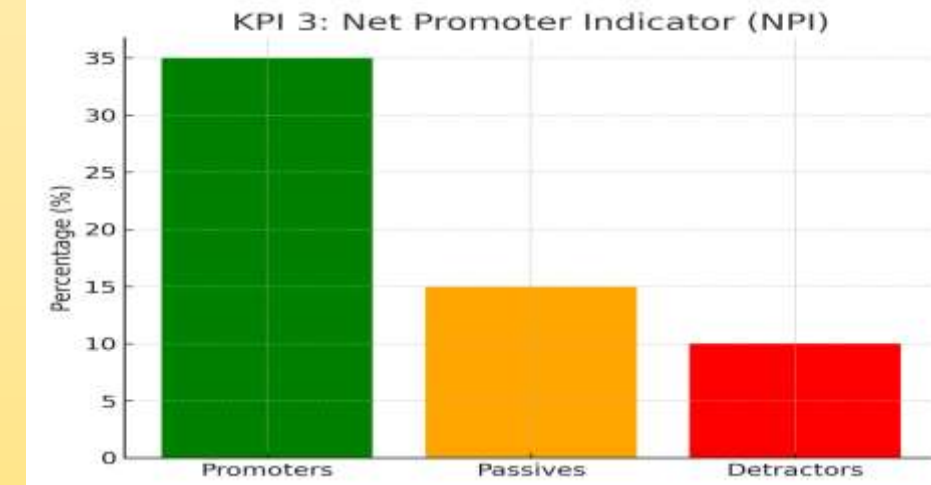
2. Adoption Rate of RajUpchar/ABHA:

- Increased from <10/day to 42% by June 25



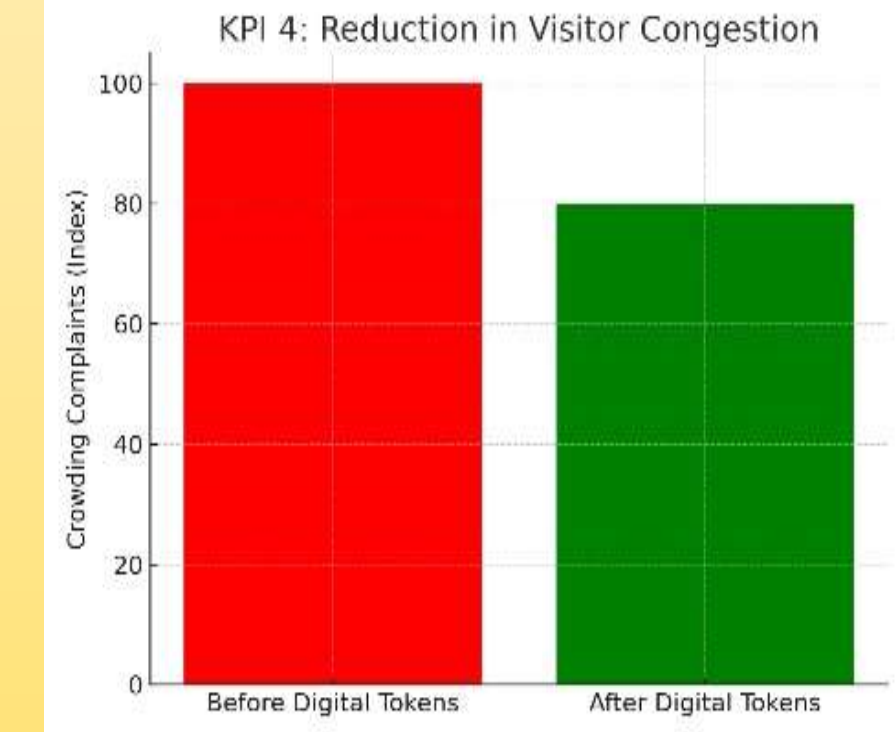
3. Net Promoter Indicator (NPI):

- Promoters 35% | Passives 15% | Detractors 10%
- NPI = 35 - 10 = **25**

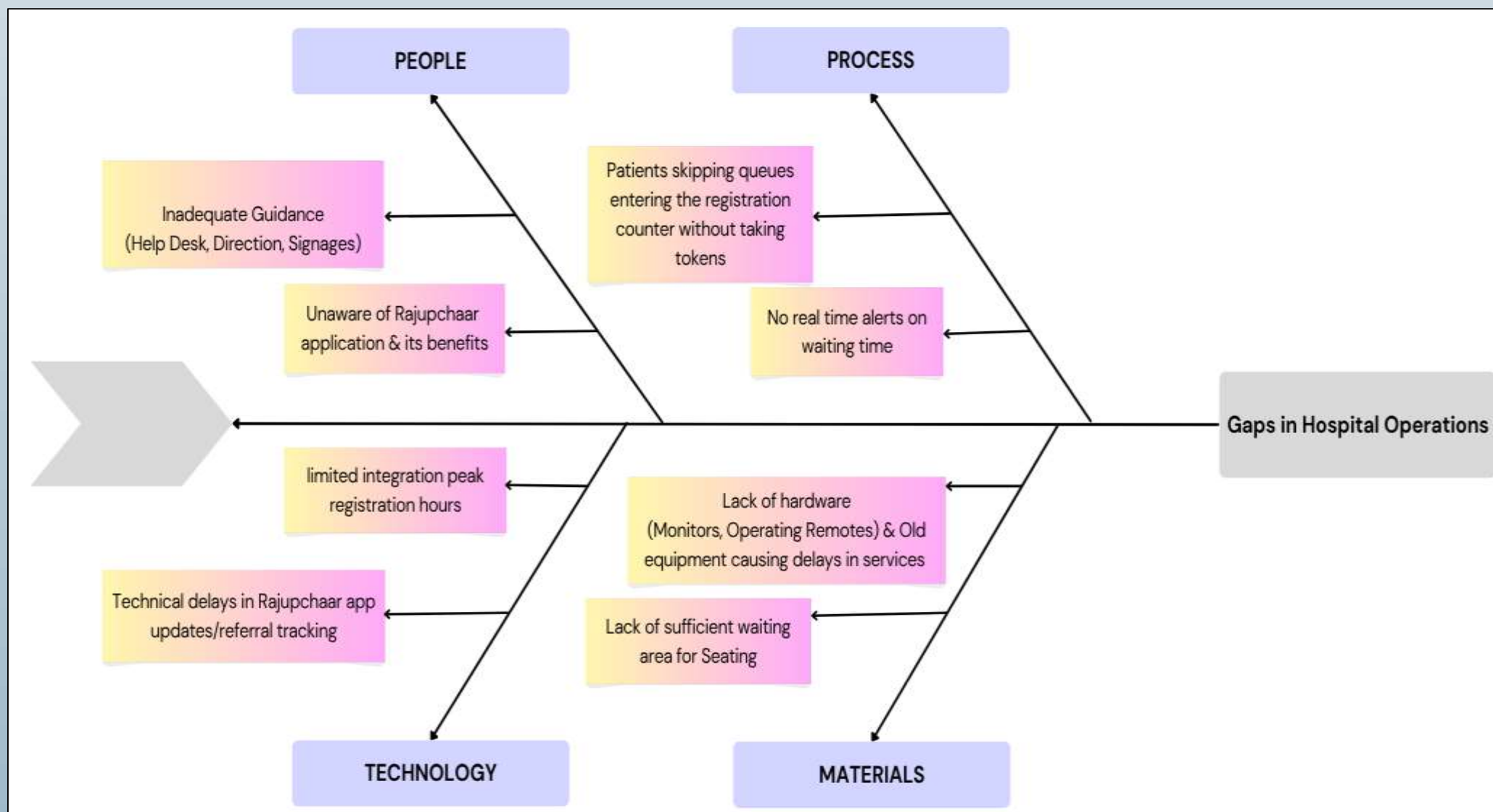


4. Reduction in Visitor Congestion:

- 20% fewer complaints after token adoption, smoother patient flow.



CATEGORY	NO. OF RESPONSES	% OF TOTAL
PROMOTERS (9-10)	210	35
PASSIVE (7-8)	90	15
DETRACTORS (6-6)	60	10



SUGGESTIONS

- **Single Window System:** Centralize registration, appointment booking, and scheme verification to streamline processes.
- **Wristband Technology:** Automate patient tracking, improve security, prevent congestion, and enhance patient flow.
- **Laser Printers:** Replace dot matrix printers for faster document processing and improved accuracy.
- **Staff Training:** Provide regular training on digital systems, wristband usage, and new QMS processes.
- **IT System Maintenance:** Ensure regular updates and maintenance to prevent system downtimes.
- **Patient Education:** Educate patients on using digital tools (ABHA, RajUpchar) for smoother processes.
- **Real-Time Analytics:** Implement live dashboards for monitoring patient flow, waiting times, and staff performance.
- **Security & Compliance:** Strengthen data security for EHR systems and ensure patient privacy.

CHALLENGES FACED

- ❑ **Resistance to Digital Systems** – Patients unfamiliar with technology.
- ❑ **System Downtime** – Delays due to technical issues.
- ❑ **Lack of Awareness** – Patients unaware of the digital system.
- ❑ **Overcrowding at Waiting Areas** – Physical crowding despite digital queues.
- ❑ **Inconsistent Adoption** – Mixed queues from partial system adoption.

LEARNING & USEFULLNESS

- ✓ **Observation of hospital operations from an administrative perspective.**
- ✓ **Exposure of Government hospital.**
- ✓ **Importance of patient satisfaction.**
- ✓ **Networking opportunities.**
- ✓ **Self development: Communication skill & Conflict resolution skill**

STUDY 2: Efficiency Study of Autoclave in CSSD

- **CSSD** ensures sterilization of surgical instruments to prevent infections in the hospital.
- The study evaluates the efficiency of **autoclave machines** and other sterilization equipment at Jaipuria Hospital, focusing on capacity utilization, maintenance practices, and gaps in data monitoring.

OBJECTIVE

- **Observe & Evaluate** sterilization efficiency of Autoclaves & ETO machine.
- **Assess** the utilization of the ETO machine and other sterilization equipment (formalin chambers, washer-disinfectors).
- **Identify gaps** in data monitoring, record-keeping, and workflow.
- **Recommend improvements** for optimizing efficiency and reducing delays.

RESEARCH METHODOLOGY

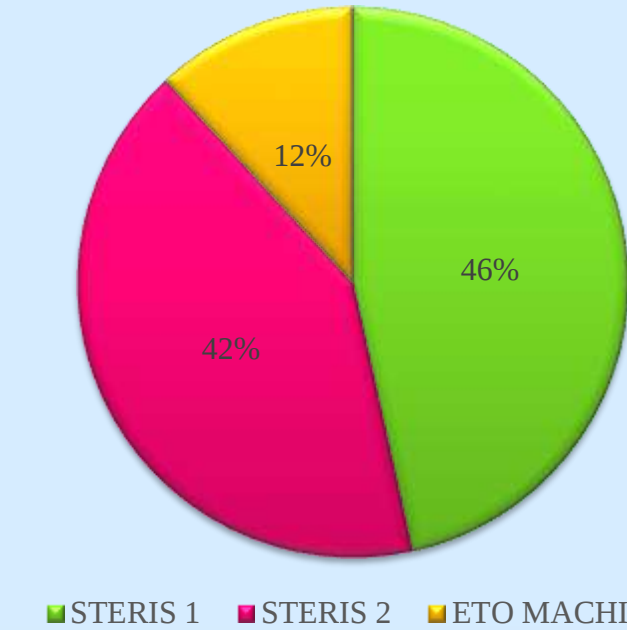
Study Design Study	: Observational Study
Period	: 30 Days
Type Of Data	: Primary Data –
	✓ From observations made in the CSSD
	✓ Direct Interaction with CSSD In- charge and technicians.
Sampling	: Autoclave cycles are observed & Recorded for 30 Days

OBSERVATION

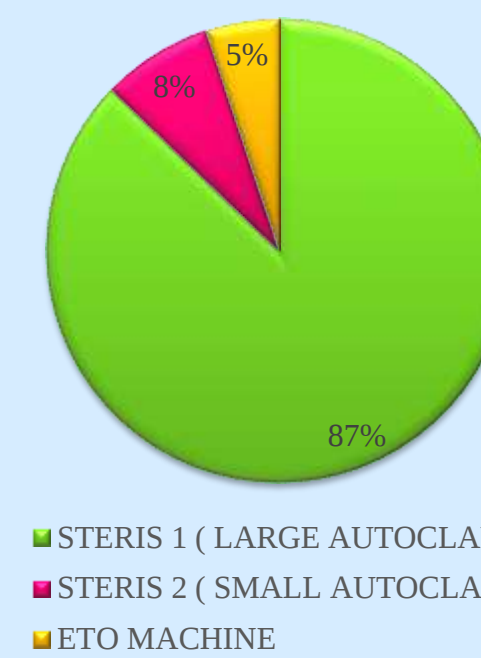
Key Parameters:
Temperature: 120°C
Pressure: 15 PSI

Cycle durations:
Linen: 20 min
Instruments: 30 min
Implants: 45 min
Vacuum Drying: 15 min

TOTAL CYCLE OBSERVED FOR 2 AUTOCLAVES & 1 ETO MACHINE (30 DAYS)



CSSD sterilization Load distribution



Equipment Utilized

- **1 Large Autoclave:** 17 drums/load, 2-3 rounds/day (after 2 PM).
- **1 Small Autoclave:** 3 drums/load, 1-2 round/day (used for emergency sterilization).
- **1 ETO Machine:** Used for heat-sensitive instruments.
- **7 Washer-Disinfectors:** For cleaning before sterilization.
- **10 Formalin Chambers:** For low-temperature sterilization.
- **Cidex/Glutaraldehyde Solution:** For high-level disinfection.

GAPS IDENTIFIED

- ❑ No digital log books
- ❑ No monthly performance monitoring
- ❑ Limited Sterilizers & staff shortage.
- ❑ Lack of preventive maintenance logs
- ❑ No real time monitoring

SUGGESTIONS

- ❑ Introduce digital logbooks
- ❑ Implement preventive maintenance
- ❑ Optimize load balancing

PROCESS WORKFLOW



THEORETICAL LEARNING

- ❑ Establishing a foundation in medical and healthcare concepts, terminology, & best practices.
- ❑ Understanding of research methodology for improved comprehension.
- ❑ Principles of healthcare management.
- ❑ Healthcare policy and regulations.
- ❑ Quality improvement and patient safety.

PRACTICAL LEARNING

- ❑ Opportunities for skill enhancement aimed at bolstering operational efficiency.
- ❑ Practical exposure to decipher intricacies and hurdles within daily operations.
- ❑ Cultivation of leadership acumen and adept team oversight capabilities.
- ❑ Proficiency in crisis navigation and adept decision-making amidst challenging circumstances.

