

NABH Digital Health Excellence 2026 – Case Study

Title

Strengthening Operational Excellence Through Digital Tiered Huddles: A Real-Time Dashboard for Performance Monitoring and Issue Resolution

Organization

Apollo Hospital, Sarjapur Road, Bengaluru

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Abstract

Healthcare organizations require timely communication, rapid decision-making, and continuous monitoring to ensure patient safety and operational excellence. Manual reporting methods often result in delayed escalation, fragmented communication, and poor accountability.

To address these challenges, Apollo Hospital, Sarjapur Road implemented a **Digital Tiered Huddle Dashboard**, a centralized digital platform that captures real-time operational Key Performance Indicators (KPIs), facilitates structured issue escalation, tracks departmental actions, and monitors closure status. The initiative significantly improved leadership visibility, reduced issue resolution time, enhanced accountability, and strengthened patient safety practices.

Background

Tiered Huddles are an established management strategy for promoting communication across all organizational levels. Prior to digitalization, the hospital relied on manual reports, emails, and spreadsheets to communicate operational issues.

This resulted in:

- Delayed identification of operational concerns
- Lack of real-time visibility for leadership
- Multiple follow-ups through emails and phone calls
- Difficulty tracking pending actions
- Limited accountability for issue closure

There was a need for a digital solution that could provide a single source of truth for operational performance.

Problem Statement

The hospital experienced several operational challenges:

- Manual collection of daily departmental data
- Delayed escalation of patient safety concerns
- Lack of standardized reporting across departments
- Difficulty monitoring action plan implementation

- Limited transparency in issue ownership
 - Leadership received delayed operational updates
- These gaps affected timely decision-making and operational efficiency.

Objective

To establish a digital platform that enables:

- Real-time monitoring of operational KPIs
- Structured daily Tiered Huddles
- Immediate issue escalation
- Department-wise action tracking
- Monitoring of action closure timelines
- Data-driven leadership decisions

Digital Intervention

A **Digital Tiered Huddle Dashboard** was developed using cloud-based reporting tools integrated with departmental data collection.

The dashboard included:

Live Operational KPIs

- Bed Occupancy
- OPD Footfall
- Emergency Census
- Admissions
- Discharges
- Average Length of Stay
- ICU Occupancy
- Pending Discharges
- Turnaround Times
- Infection Control Alerts
- Biomedical Equipment Downtime
- Patient Safety Incidents

Daily Issue Escalation

Departments entered operational concerns before the daily huddle.

Examples:

- Equipment breakdown
- High patient waiting time

- Bed shortages
- Staff shortages
- Medication stock issues
- Biomedical waste deviations
- Housekeeping concerns
- Patient complaints

Critical issues were automatically escalated to senior leadership during Tier-2 and Tier-3 huddles.

Department Action Tracking

Each issue was assigned to:

- Responsible department
- Action owner
- Target completion date
- Current status
- Supporting remarks

Status categories:

- Open
- In Progress
- Closed
- Escalated

Closure Monitoring

The dashboard continuously monitored:

- Number of open issues
- Overdue actions
- Average closure time
- Department-wise pending actions
- Escalation matrix

Leadership reviewed pending actions daily until closure.

Leadership Dashboard

Senior leadership could view:

- Hospital-wide KPIs
- Department performance
- Open critical issues

- Trend analysis
- Daily operational summary
- Compliance scorecards

This improved decision-making through real-time visibility.

Digital Features

- Cloud-based dashboard
- Mobile-friendly access
- Real-time updates
- Automated data visualization
- Department-wise filtering
- Color-coded alerts
- Historical trend analysis
- Audit trail
- Digital documentation
- Paperless reporting

Implementation Process

Phase 1

Stakeholder identification and KPI finalization.

Phase 2

Dashboard development.

Phase 3

Departmental user training.

Phase 4

Pilot implementation.

Phase 5

Hospital-wide rollout.

Phase 6

Continuous monitoring and improvement.

Outcomes

Operational Outcomes

- Faster issue identification
- Improved communication between departments

- Increased leadership engagement
- Better accountability
- Standardized reporting
- Improved patient safety monitoring

Quality Outcomes

- Improved compliance with NABH standards
- Enhanced multidisciplinary collaboration
- Better documentation
- Improved monitoring of quality indicators
- Timely implementation of corrective actions

Digital Transformation Outcomes

- Reduced dependency on manual reporting
- Centralized operational information
- Improved transparency
- Enhanced data accuracy
- Real-time performance monitoring

Innovation

The innovation lies in integrating operational performance, patient safety indicators, issue escalation, and leadership decision-making into a single digital dashboard that supports structured Tiered Huddles.

Rather than reviewing data retrospectively, leaders receive actionable insights every day, enabling proactive management.

Sustainability

The dashboard is sustainable because:

- It uses existing digital infrastructure.
- Minimal manual intervention is required.
- Departments update information daily.
- Leadership reviews it during routine huddles.
- New KPIs can be added as organizational priorities evolve.

Replicability

The model can be implemented in:

- Multi-specialty hospitals
- Single-specialty hospitals
- Corporate healthcare networks
- Medical colleges
- Secondary care hospitals

The framework is scalable and adaptable regardless of hospital size

Conclusion

The **Digital Tiered Huddle Dashboard** transformed operational management by creating a structured, transparent, and data-driven approach to daily hospital operations. Real-time KPI monitoring, standardized issue escalation, action tracking, and closure monitoring improved communication, accountability, and leadership oversight. This initiative strengthened patient safety, enhanced operational efficiency, and supported continuous quality improvement, making it a sustainable and replicable digital health innovation aligned with NABH's vision for healthcare excellence.

Operational Performance Dashboard:

Indicator	Today	Target	Status	Trend
Bed Occupancy			●	↑
OPD Footfall			●	↑
Emergency Census			●	→
Admissions			●	↑
Discharges			●	↑
Average LOS			●	↓
ICU Occupancy			●	→
Pending Discharges			●	↓

Turnaround Time (TAT) Dashboard:

Process	Target	Actual	Status
Emergency Registration			●
Lab Routine Reports			●
Radiology Report			●
Pharmacy Dispensing			●
Patient Discharge			●

Infection Control Dashboard:

KPI	Today	Month-to-Date	Status
HAI Alerts			●
CLABSI			●
CAUTI			●
SSI			●
Hand Hygiene Compliance			●
Isolation Alerts			●

Biomedical Equipment Dashboard:

Equipment	Status	Downtime	Owner
MRI	● Maintenance		

Equipment	Status	Downtime	Owner
CT Scan	● Operational		
Ventilators	● Operational		
Dialysis Machines	● Operational		
Defibrillators	● Operational		

Patient Safety Dashboard:

Indicator	Today	MTD	Status
Falls			●
Medication Errors			●
Near Miss			●
Pressure Injury			●
Patient Complaints			●
Sentinel Events			●

Critical Alerts Panel:

Priority	Issue	Responsible Department	ETA
● High	Patient Complaint Pending	Operations	
● Medium	MRI Preventive Maintenance	Biomedical	
● Medium	Pending Discharges	Nursing	

Priority	Issue	Responsible Department	ETA
● Low	Hand Hygiene Audit	Infection Control	

Leadership Scorecard:

Category	Compliance
Operational Performance	
Patient Safety	
Quality Indicators	
Infection Prevention	
Biomedical Equipment Availability	
Overall Hospital Health Score	

Executive Snapshot:

HOSPITAL COMMAND CENTRE

Bed Occupancy	●
OPD Footfall	●
Emergency Census	●
Admissions	●
Discharges	●
Average LOS	●

ICU Occupancy	
Pending Discharges	

Infection Alerts	
Equipment Downtime	
Patient Safety Incidents	
TAT Compliance	

Overall Hospital Health Score 