

SUMMER INTERNSHIP PROGRAM

at

MBS HOSPITAL, KOTA

From 15/05/2025 to 29/07/2025

A REPORT BY

SMIT RAJENDRA PATIL

Master of Business Administration

HEALTHCARE ANALYTICS

Roll no: 0021

2024-26

under the Mentorship of

Dr. RITU VASHISTHA

Assistant Professor



IIHMR University, Jaipur



Name of Institution- *MBS Hospital, Kota (Raj.)*

Completion Certification from the Organization
CERTIFICATE

This is to certify that Dr./Mr./ Ms. ***Smit Patil*** of ***MBA-HA 01/ IIHMR University*** has worked with our organization for his/her summer internship from ***15/05/2025*** to ***29/07/2025*** The overall performance shown by him/her during the period was excellent/good/average.

Date: -

(Signature of organization Mentor)

Name – ***Dr. Sharm Raj Meena***

Designation – ***Medical Supdt.***

Seal Stamp of the Organization.

अधीक्षक
महाराव भीमसिंह चिकित्सालय
कोटा

अधीक्षक,
महाराव भीमसिंह चिकित्सालय,
कोटा (राज.)।

IIHMR University Faculty Mentor Approval

This is to certify that **Mr. Smit Patil** of academic year 2024-26 **School of Digital Health, IIHMR University, Jaipur, Rajasthan** has prepared a poster with respect to his summer internship held during May-July 2025.

He has carried out work as per the guidelines. His poster is approved for presentation.



Date: 30/07/2025

Dr. Ritu Vashistha
Assistant Professor



PROFILE OF THE ORGANISATION

- Maharao Bhim Singh (MBS) Hospital, located in Kota, Rajasthan, is affiliated with Government Medical College, Kota. Established in 1992, it has served as the largest government hospital in the region for many years, providing a wide range of medical services to the public. With a capacity of 750 beds, the hospital serves approximately 8 lakh patients annually.

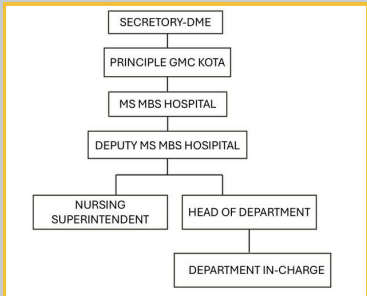
MISSION

- To deliver high-quality, accessible, and patient-centric healthcare services in Kota, Rajasthan. This includes providing a wide range of medical treatments, surgeries, and procedures, as well as promoting patient health and well-being through various support services.

VISION

- To be a leading healthcare provider in the region, known for its excellence in medical care, advanced facilities, and a supportive environment for patients and their families.

ORGANISATION STRUCTURE
MBS HOSPITAL



ABOUT PROJECT

IHMS Patient Flow Analytics

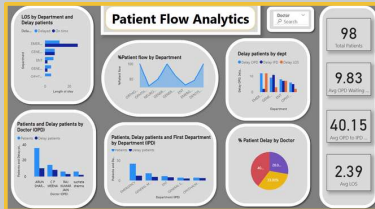
Objective:

To analyze OPD, IPD, and discharge delays using IHMS data for smoother hospital operations.

Methodology:

Used Excel & Power BI to clean data, track timestamps, and visualize delays for actionable insights.

Key Insights



- Total Patients: 98
- Avg. OPD Waiting Time: 9.83 mins
- Avg. OPD to IPD Transfer Time: 40.15 mins
- Avg. Length of Stay (LOS): 2.39 days
- Emergency Dept. has highest delayed LOS
- Dr. Arun Sharma handles max OPD patients & delays
- Emergency Dept. shows highest IPD delays
- General Medicine & Dental have peak patient flow

June 2025 Appointment Analysis

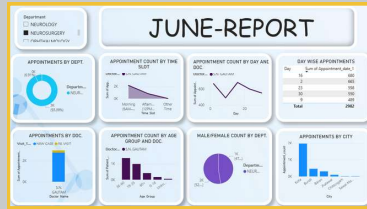
Objective:

To study appointment trends and doctor workload for better scheduling and patient flow.

Methodology:

Used SQL for appointment classification, and Excel & Power BI to identify peak hours and plan resources.

Key Insights



- Total Appointments: 2982
- Neurology: 93% of total appointments
- Dr. S.N. Gautam handled all cases
- Peak Slot: Morning (6AM-12PM)
- Major Age Group: 36-60 years
- Gender: 52% Male, 47% Female
- Highest Appointments from Kota
- New Cases > Re-visits

SWOT ANALYSIS

STRENGTH	SWOT ANALYSIS	WEAKNESS
1. Real & proper IHMS data - accurate insights. 2. Visual dashboard - > decision making. 3. Timestamps - analyzed pinpoint issues.		1. Manual data entry - errors 2. Limited access & staff shortage. 3. Pending modules integrations (labs, pharmacy).
OPPORTUNITY	ANALYSIS	THREATS
1. Real time monitoring 2. Proactive patient management 3. Scalability.		1. Resistance to adopt new tech 2. Data privacy & security 3. Budget problem.

CHALLENGES

- Incomplete or inconsistent IHMS data
- Lack of real-time data from all departments
- Manual discharge processes causing long delays
- Difficulty in coordinating with busy clinical staff
- Limited digital literacy among hospital personnel
- Resistance to adopting dashboard-based insights
- Time constraints for deep departmental analysis
- Absence of standardized patient flow protocols

DIFFERENCE BETWEEN

THEORETICAL (IIHMR University)	PRACTICAL (MBS Hospital)
- Learned Power BI, Excel, SQL through guided modules - Studied ideal patient flow & hospital processes - Focused on structured datasets - Dashboards & performance indicators - Date-driven decision-making	- Worked with incomplete & real hospital data - Identified actual delays in IPD & discharge - Faced inter-department coordination issues - Built real dashboards - Suggested process improvements to hospital staff

KEY LEARNINGS

- Applied Power BI & Excel on real hospital data
- Understood OPD to discharge patient flow
- Handled data cleaning & visualization
- Improved coordination with hospital staff
- Realized value of real-time data for decisions
- Identified gaps between system design & ground reality
- Strengthened analytical & problem-solving skills

SUGGESTIONS

- Digitize discharge process
- Enable real-time data entry across departments
- Train staff on IHMS & dashboards
- Standardize OPD-IPD flow protocols
- Use dashboards for daily monitoring
- Add OPD appointment time slots
- Improve interdepartmental communication
- Appoint data coordinators for accuracy



Weekly Reports

Name of the Organization: MBS Hospital, Kota

Area/ Department/ Project of Summer Internship Program: Data Analysis, IHMS

Name of the Student: Smit Rajendra Patil

Roll no: 0021

Stream: MBA Healthcare Analytics

Week no: 01

From: 15/05/2025 to 17/05/2025

Activity Done	Day 1: We visited major hospital departments (OPD, IPD, Lab, Radiology, etc.). Understood patient flow and departmental functions at MBS hospital. Day 2: I met with hospital superintendent Dr. Dharmraj Meena for a project discussion. And collected key performance data, 1.Avg. patient waiting time (registration, lab, consultation) 2.Maa Yojna claims (submitted & rejected) 3.Bed occupancy and availability data. Day 3: I met with IHMS operator and project engineer Mr. Anil Jangid in the IT department. Then I started a staff data collection survey: Employee ID, name, contact, job details, supervisor info, photo, email.
Linking theory (Classroom learning) with practice at your organization	Concepts of healthcare analytics and data management were effectively applied in the first week. Real-time data collection on patient flow, waiting times, and bed occupancy helped me understand practical challenges in hospital management.
Gaps identified on the working area.	Gaps were observed in digital record-keeping, delayed data entry, and lack of real-time monitoring, that's why lot of patients were seen in the waiting line.
Suggestions for improvement	Though there is an IHMS there is queue, implementing a centralized digital system for real-time data entry, and regular training for staff on data handling can enhance overall efficiency and accuracy.
Plan for the next week	Working on survey further as a data entry part, And I will have a discussion on some project ideas by me with Superintendent sir and IHMS operator.

Activity Done	Over six days, I participated in the inauguration event of the Disability Centre at MBS Hospital by Shri Om Birla, MP and Honorable Lok Sabha speaker. It was organized by the management team along with us (Day 1) Corrected data on average waiting time (Day 2) Then I work which was given by dept. of medical education; and studied the hospital's daily workflow (Days 3–4) As the patient data is confidential, I filled in an application to access IHMS data and collected Drug distribution counter patient waiting time data (Day 5) submitted the application to the IHMS project engineer to gather the required data for the project (Day 6).
Linking theory (Classroom learning) with practice at your organization	Classroom learning on healthcare workflows, data analysis using excel, system and event management by considering principle of management and organization behavior was effectively linked to practice at the organization by applying these concepts to real tasks has been done.
Gaps identified on the working area.	Gaps identified in the working area included delays in data access, incomplete or inconsistent waiting time records like consultation time and IPD admission time have limited integration between departments, and the need for clearer communication channels to streamline hospital workflows should improve for data accuracy.
Suggestions for improvement	Suggestions for improvement include streamlining data access processes, ensuring consistent and accurate record-keeping, enhancing interdepartmental coordination, and strengthening communication channels to improve workflow efficiency and overall hospital performance.
Plan for the next week	Next week, the plan is to focus on the project titled “Study of Patient Flow Analytics Using IHMS Data” by analyzing collected datasets, identifying key bottlenecks in patient flow, generating insights on waiting times and service efficiency, and preparing actionable recommendations to optimize hospital operations.

Activity Done	I received and cleaned the data which was basically of was of IPD patients in excel dataset format and I found that there is inconsistency in the data and timestamps like IPD admission time and consultation time is not mentioned in the data which was major void in the data on Day 1, followed by sorting the data and meeting with the superintendent, where we were assigned new work which was about the staff hiring for new IPD building on Day 2. On Day 3, we visited the IPD for staff hiring processes, given by medical superintendent we observed the whole building to discuss what will be the no. of staff is required for it. It was a holiday on Day 4 due to Maharana Pratap Jayanti, We completed Department of Medical Education work on IHMS modules which are working modules in respective hospitals on Day 5. Based on the dataset of IPD I named the project and starting on the project of 'patient flow analytics' on Day 6.
Linking theory (Classroom learning) with practice at your organization	I applied classroom concepts like data sorting, project management, and healthcare operations in real tasks. From data cleaning to staff hiring visits and departmental work, the experience helped me connect theory with practice and deepen my practical understanding.
Gaps identified on the working area.	Identified gaps such as delays flags and timestamp in during data sorting, limited staff availability for key tasks, and a need for better coordination between departments to improve workflow and efficiency.
Suggestions for improvement	Improving inter-departmental communication to ensure smoother workflow and better efficiency. And Implementation of more modules of IHMS in hospital so that can help to deploy the delay flags.
Plan for the next week	I will do further work on project of 'Patient flow Analytics' will find more key insights and, I will work on making of a report regarding to task assigned by superintendent related to staff hiring for new IPD dept.

Week no: 04

From: 02/06/2025 to 07/06/2025

Activity Done	The primary focus was on the staff hiring task and the predictive modelling project of name ' Patient flow Analytics '. Initial days of the week involved discussions around staff hiring and project planning, followed by data manipulation for the project as there is a lot of inconsistency in the data set. A meeting with the Dept. of Medical Education team was attended by us, contributing to broader project insights. Additionally, work on RGHS data collection progressed steadily after the DME meeting as it was assigned by DME , along with report creation and measure calculations which were required for the predictive model. One day was observed as a holiday due to Eid.
Linking theory (Classroom learning) with practice at your organization	Concepts such as data manipulation, measuring calculation, and report creation were applied during the predictive modelling project using power Bi and Excel.
Gaps identified on the working area.	Inconsistent data quality standards were very huge void for performing the project so I have to manipulate the data set with the timestamps like Consultation time and IPD admission time so that I can deploy the delay flags.
Suggestions for improvement	Working on a project that highlights the importance of timestamped data in improving patient flow and hospital efficiency i.e. 'Patient flow Analytics.
Plan for the next week	I will further try to analyze more things on the 'Patient flow Analytics' project.

Activity Done	I submitted the staff hiring report for the work, which was assigned by medical superintendent sir and, I learned the IPD process for RGHS system on Day 1. Due to a strike, no work was done on Day 2, but I did further analysis work. From Days 3 to 5, I focused on data sorting using pivot tables first for OPD, then IPD, and finally for discharge data by grouping key factors like No. of patients (Total), out of which No. of patients which got delay flag by dept. and doctor respectively. On Day 6, I explored additional insights that could be derived from the data.
Linking theory (Classroom learning) with practice at your organization	Concepts like data sorting, grouping, and analysis using pivot tables covered in our data analytics coursework were directly applied to real OPD, IPD, and discharge datasets. Additionally, understanding healthcare workflows such as the IPD process aligned well with our theoretical modules on hospital operations and health system.
Gaps identified on the working area.	Inconsistent data quality standards which I manipulated because of that only the delay flag got mentioned successfully and got effective insights from the dataset.
Suggestions for improvement	I am working on a project that highlights the importance of timestamped data in improving patient flow and hospital efficiency. So that hospital considers this as a suggestion for improvement in IHMS module standard format.
Plan for the next week	I will further work on project to get more insightful things from the dataset.

Week no: 06

From: 16/06/2025 to 21/06/2025

Activity Done	On Day 1, the focus was on analyzing the overall patient flow specifically work on calculating the %Patient flow. Day 2 involved identifying and examining delay flags across OPD, IPD, and discharge processes in total. On Day 3, a pivot table was created to track day-wise patient counts and their exact timestamp so that the peak hours can be identified to minimize the queue. Day 4 was dedicated to planning the data visualization approach, followed by initiating the visualization work on Day 5 and continuing it through Day 6 by using power bi.
Linking theory (Classroom learning) with practice at your organization	Pivot table usage learned during academic coursework in healthcare analytics was directly applied to real-world hospital data. The use of data visualization tools further reinforced theoretical knowledge of effective communication and data storytelling.
Gaps identified on the working area.	No Standardized Format for Delay Flags, Lack of Real-Time Data Integration these were the major gaps issues which are the voids for analyzing things perfectly.
Suggestions for improvement	I am working on a project that highlights the importance of timestamped data in improving patient flow and hospital efficiency. This may help to create a standard data set format which can be integrated with an IHMS system module which can help with the real time analysis.
Plan for the next week	I will work on a project to make the analysis visually perfect and better using the power BI software.

Week no: 07 From: 23/06/2025 to 28/06/2025

Activity Done	• On Day 1, all graphs were initially plotted using Power BI by using the same pivot tables which were plotted with the help of pivot tables. • On Day 2, in the morning there was a team discussion held in that suggestions were given which involved refining these visuals. • Work on the dashboard began on Day 3 and continued through Day 4 by using Power BI. • On Day 5, a focused discussion was held to review the dashboard on 'Patient flow Analytics' with all proper visuals along with the slicers based on doctor and department. • And finally, on Day 6, the dashboard was completed, refined and finalized.
Linking theory (Classroom learning) with practice at your organization	• Concepts such as data visualization, dashboard design, and iterative development learned during academic sessions were practically applied using Power BI. Each stage, from plotting graphs to refining and finalizing the dashboard, reflected theoretical knowledge being implemented to solve actual operational challenges, thereby strengthening analytical and decision-making skills which can be beneficial move in time management of MBS hospital.
Gaps identified on the working area.	• Some inconsistencies in data labeling and department names were observed, affecting readability which was still there when I imported the dataset in the Power BI which was a problem for plotting the graph visuals.
Suggestions for improvement	• To enhance future projects, it's suggested to begin with a well-defined dashboard layout plan and clearer data mapping to avoid rework. In simple terms there is the requirement of standard dataset which can be added to the IHMS module which will be helpful for getting key insights.
Plan for the next week	• I will further work on projects and tasks. And I will be looking forward to getting new tasks and projects.

Week no: 08

From: 29/06/2025 to 05/07/2025

Activity Done	• This week, it was observed that there is a still problem with the integration because of improper data set so I worked on preparing and structuring the datasets for integration with the Power BI dashboard to support real-time analysis. I focused on cleaning the data, standardizing field formats, and designing relational models to ensure smooth connectivity again. I put the tables in separate sheets in the same datasets with proper heading. I also defined key metrics and mapped data sources to enable dynamic updates again. The final dataset is then optimized for accurate and real-time dashboard reporting.
Linking theory (Classroom learning) with practice at your organization	• Concepts like data cleaning, relational modeling, and metric definition previously studied in class proved essential in structuring the data effectively for live dashboard reporting by using One drive integration with excel and power BI.
Gaps identified on the working area.	• Inconsistent data entries across sources, missing values in key fields, and lack of standardized formats, which initially created problems for smooth integration with Power BI.
Suggestions for improvement	• Maintaining updated documentation on data sources and flow will also streamline future integration efforts. Lastly, periodic training sessions for staff involved in data handling can promote better data hygiene and accuracy.
Plan for the next week	Will further work on project and tasks.

Week no: 09

From: 07/07/2025 to 12/07/2025

Activity Done	A properly formatted IHMS dataset was created with fields like Patient ID, visit type, department, and key timestamps (registration, consultation, admission, discharge), all in consistent Date Time format. Delay columns were calculated to track bottlenecks in patient flow. This dataset was integrated with Power BI for near real-time insights and was presented to the Medical Superintendent, where minor changes were suggested and implemented.
Linking theory (Classroom learning) with practice at your organization	Classroom concepts like data preprocessing, visualization, and real-time analytics using tools like Excel and Power BI were effectively applied in this project.
Gaps identified on the working area.	Inconsistent data entry across departments, missing or incorrect timestamps, lack of real-time data integration, and limited use of analytics tools for decision-making
Suggestions for improvement	To improve patient flow and data reliability, it is suggested to implement automated timestamp capturing at key service points, ensure regular staff training on accurate data entry, and integrate IHMS with Power BI using real-time sync (via Excel/OneDrive or API).
Plan for the next week	Will further work on project and tasks.

Week no: 10

From: 14/07/2025 to 19/07/2025

Activity Done	Day 1: Structured SQL data (visits, gender, age, time, location, doctor, dept). Day 2: Exported to Excel, started Power BI visuals with dept-wise slicers. Day 3: Built initial dashboard in Power BI. Day 4: Refined dashboard, added slicers, started PPT. Day 5: Presented to Medical Superintendent, discussed insights & suggestions. Day 6: Worked on poster and report.
Linking theory (Classroom learning) with practice at your organization	Applied classroom concepts of data structuring, SQL querying, Excel analysis, and Power BI dashboarding to real-world hospital data — enabling actionable insights for patient flow.
Gaps identified on the working area.	Incomplete data capture from several departments within IHMS, reliance on manual data entries causing inconsistencies, lack of real-time insights due to delayed updates, and lack of use of analytics tools like Power BI.
Suggestions for improvement	To enhance data quality and decision-making, it is suggested to ensure complete and consistent data entry across all departments, automate data collection to reduce manual errors.
Plan for the next week	Will further work on post internship work.

Signature of the Student

Approved by the IIHMR University's Mentor

Compiled Report

Name of the Organization: MBS Hospital, Kota

Area/ Department/ Project of Summer Internship Program: Data Analysis, IHMS

Name of the Student: Smit Rajendra Patil

Roll no: 0021

Stream: MBA Healthcare Analytics

Activity Done	Introduction During my internship at MBS Hospital, I was involved in a comprehensive data-driven project focused on Patient Flow Analytics and process improvement. Over the course of 10 weeks, I undertook various tasks involving departmental observation, data collection, cleaning, analysis, visualization, and dashboard creation. The internship gave me hands-on experience with hospital information systems, public health data, event coordination, and staff workflow understanding. The following summary outlines the week-by-week activities carried out during the internship. Week 1-3: Orientation, Data Collection & Departmental Understanding The internship began with orientation activity, where I visited key hospital departments including the OPD, IPD, Laboratory and Radiology. These visits helped me understand the patient flow across service points and observe how different departments coordinate daily operations. Following this, I met with the hospital superintendent to discuss the scope of my internship project. I then began collecting data, which included: 1. Avg. waiting times at OPD counters and other key locations. 2. Maa yojana claim data 3. Bed occupancy statistics In parallel, I coordinated with the IT department to initiate a staff data collection survey, compiling essential employee info such as name, role and contact details. In the second week, I assisted in operating the disability center Inauguration event, officiated by Shri Om Birla, Speaker Lok Sabha. During this period, I also reviewed and corrected previously recorded waiting time data, observed daily departments workflow in greater detail, and submitted a formal request for access to the IHMS (Integrated Hospital Management System) database. Shri Om Birla, Speaker Lok Sabha. During this period, I also reviewed and corrected previously recorded waiting time data, observed daily departments workflow in greater detail, and submitted a formal request for access to the IHMS (Integrated Hospital Management System) database. Additionally, I collected waiting time data from the Drug Distribution Counter, which is often a critical service point in terms of patient experience. I submitted a written application to the IHMS project engineer to initiate data access and support.
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In Week 3, I began the process of data cleaning and organizing the IHMS datasets received. I also had a review meeting with the Superintendent, following which I was assigned to explore the IPD staff hiring process. Simultaneously, I was given collaborative tasks with the Department of Medical Education.

Weeks 4–6: Project Initiation & Staff Process Understanding

Week 4 marked the formal initiation of the Patient Flow Analytics project. This phase focused on understanding process inefficiencies and preparing datasets for analysis. I participated in:

- Data cleaning and structuring for analysis
- Early discussions on predictive modelling
- Collection of RGHS (Rajasthan Government Health Scheme) patient records

In addition, I contributed to staff hiring support by collecting and compiling recruitment data and helped in organizing department records. I also attended multiple team meetings with the Medical Education department, where planning and operational decisions were discussed.

In Week 5, I finalized and submitted the hiring report, which involved understanding the recruitment process for IPD staff under RGHS. A statewide strike during this period temporarily interrupted normal activities, but I managed to use the time effectively to complete data sorting tasks using pivot tables for OPD, IPD, and patient discharge logs. These datasets were analyzed to draw insights related to patient flow.

Week 6 was centered around a deep-dive into process delays and service bottlenecks. I analyzed patient movement across departments and created Excel-based pivot tables to track daily patient volumes.

This work laid the foundation for the Power BI dashboard, which was planned during this phase and would be developed in the following weeks.

Weeks 7–9: Dashboard Development and Data Modelling

In Week 7, I transitioned to the Power BI development phase. I built initial visualizations based on previously cleaned patient flow data. Visual elements such as daily patient trends, service delays, department-wise patient volumes, and waiting time distributions were incorporated into the dashboard.

Feedback from early presentations helped me refine the visual layout, making it more user-friendly and focused on decision-making insights.

Week 8 was dedicated to preparing the datasets for integration into Power BI. I ensured that all fields were:

- Cleaned and standardized (e.g., department names, patient categories)
- Mapped into a relational model that supports real-time updates
- Aligned with relevant KPIs such as patient registration times, delay intervals, discharge records, etc.

In Week 9, I completed structuring the IHMS dataset with key fields like patient ID, department, timestamps (registration, treatment, discharge), and

	type of visit. New columns were created to calculate time delays between different stages of the patient journey. This dataset was successfully linked to the Power BI dashboard to enable real-time patient flow tracking. The dashboard was presented to the Medical Superintendent, and post-presentation feedback was quickly implemented to finalize the design and functionality. Week 10: Appointment Analysis Project & Final Report Preparation In the final week of the internship, I was assigned a new mini-project titled June Appointment Analysis, aimed at understanding appointment booking trends and doctor availability patterns. I structured the appointment data using SQL, organizing the information based on: - Visit type - Gender and age group - Department and consulting doctor The cleaned and organized dataset was exported to Excel and visualized in Power BI. Visual components included department-wise filters, time-series charts, and age-gender pyramids to represent appointment distributions.
Linking theory (Classroom learning) with practice at your organization	During my 10-week internship, I got a chance to use the healthcare analytics concepts we learned in class. In the first week, I collected real-time data on patient flow, waiting time, and bed usage, which helped me understand how hospitals work. As the weeks went on, I applied what we learned about healthcare workflows, data systems, and analysis to real tasks. I worked on data cleaning, visited departments, and even saw staff hiring in action. I used Excel and Power BI to sort and analyze OPD, IPD, and discharge data. I also learned how to design dashboards, calculate measures, and show insights in a simple way. Using pivot tables and charts made it easier to understand hospital data and make better decisions. By the end of the internship, I was confident in using tools like SQL, Excel, and Power BI to turn raw hospital data into useful insights. This experience really helped me connect classroom learning with real-world healthcare problems.
Gaps identified on the working area.	Throughout my 10-week internship, I noticed several gaps in the hospital's data handling process. In the early weeks, I observed delays in data entry, missing or incomplete records, and no real-time tracking of patient information. There were also issues like inconsistent formats, wrong or missing timestamps, and different department names, which made the data confusing and hard to analyze. As I worked more closely with departments, I saw that coordination between them was weak, and data was often not shared properly. Many times, data was entered manually, leading to errors and delays. There was no standard way to flag delays or track them across systems.

	These issues made it difficult to use tools like Power BI effectively. Overall, the lack of standardized formats, real-time integration, and use of analytics tools created challenges in getting accurate insights and making timely decisions.
Suggestions for improvement	Over the 10 weeks of my internship, I came across many areas where improvements could really help the hospital run more smoothly. One major suggestion is to implement a centralized digital system for real-time data entry and provide regular training to staff on proper data handling. This would reduce delays and improve accuracy. It's also important to improve communication and coordination between departments, so that workflows become faster and more efficient. As I worked on projects, I saw how critical timestamped data is for tracking patient movement and improving hospital flow. Having a clear plan before building dashboards and keeping documentation updated can save time and reduce confusion. In the later weeks, I felt that automating timestamp collection and syncing IHMS data with tools like Power BI could give real-time insights. Overall, better digital systems, automation, and regular staff training will improve both data quality and hospital decision-making
Key Learnings	During my internship, I got a hands-on understanding of how healthcare analytics works in a real hospital setting. I learned how to collect, clean, and analyze real-time patient data, including flow, waiting times, and departmental performance. Applying classroom concepts like data sorting, pivoting tables, dashboard design, and SQL querying to actual hospital data helped me bridge the gap between theory and practice. I understood the importance of accurate and timely data entry, and how even small inconsistencies in format or naming can impact overall analysis. Working with tools like Excel and Power BI, I developed dashboards that not only visualized key metrics but also supported better decision-making. I also realized how essential interdepartmental coordination and real-time data integration are for smooth hospital operations. Along the way, I saw how structured data, clear communication, and proper digital systems can bring huge improvements in efficiency. This experience gave me a much deeper appreciation of data quality, hospital workflows, and the power of analytics in transforming healthcare management.

Signature of the Student

Approved by the IIHMR University's Mentor