Capstone Project: Applying Business Analysis Skills

Case Study: Enhancing Operational Efficiency in a Multi-SpecialtyHospital

**Stakeholder Profiles**

## Patients

**Profile 1: Sarah Ayvazyan (Age: 35, Software Engineer)**

* Feedback on scheduling:
* Difficulty booking appointments online, often needs to call the hospital directly.
* Appointments are canceled without timely notifications.
* Wait times:
* Frequently waits over 30 minutes past her appointment time.
* Frustrated with the lack of updates during delays.
* Communication issues:
* Limited information was provided about her next steps after the consultation.
* Prefers clear instructions sent via email or SMS.

**Profile 2: Lak Ayer (Age: 62, Retired Teacher)**

* Feedback on scheduling:
* Finds the online scheduling system confusing and prefers in-person scheduling.
* Wait times:
* Recently waited nearly an hour for a cardiology consultation, leading to dissatisfaction.
* Communication issues:
* Difficulty reaching the support desk for follow-up questions about prescriptions.

## Doctors

**Profile 1: Dr. Aftab Khan (Specialization: Cardiology)**

* Resource allocation:
* Overbooked schedules leave insufficient time for patient consultations.
* Often lacks access to required diagnostic equipment during peak hours.
* Inter-departmental communication:
* Delays in receiving test results from the lab, impacting patient care.
* Inefficient handoff process when transferring patients to other departments.

**Profile 2: Dr. Robert Lee (Specialization: Orthopedics)**

* Resource allocation:
* Experiences frequent delays in accessing operating rooms due to overbooking.
* Limited availability of specialized equipment like orthopedic drills during peak hours.
* Inter-departmental communication:
* Rarely receives timely updates from physiotherapy regarding patient progress, impacting follow-up consultations.
* Finds the referral system cumbersome, often leading to confusion for both staff and patients.

## Nurses

**Profile 1: Santa Murmu (Role: Pediatric Nurse)**

* Resource allocation:
* Struggles with an uneven nurse-to-patient ratio during night shifts.
* Limited availability of essential supplies like gloves and syringes.
* Inter-departmental communication:
* Poor coordination with the emergency department for patient intake.
* Rarely receives advance notifications about patient transfers.

**Profile 2: Jessica Gomes (Role: Emergency Room Nurse)**

* Resource allocation:
* Faces challenges during shift overlaps when resources (e.g., beds, monitors) are in high demand.
* Inadequate staffing during weekends, leading to burnout and reduced efficiency.
* Inter-departmental communication:
* Reports delays in receiving diagnostic results from radiology, which impacts patient triage decisions.
* Encountered frequent miscommunication during patient transfers to the ICU, causing duplication of efforts.

## Administrative Staff

**Profile 1: Maria Carter (Role: Appointment Scheduler)**

* Challenges in scheduling:
* Frequently deals with double bookings due to system glitches.
* Limited visibility into doctors' real-time availability, leading to scheduling conflicts.
* Record management:
* Finds the current patient record system outdated and difficult to navigate.
* Experiences delays in retrieving patient histories during busy hours.

**Profile 2: Ivan Walker (Role: Billing Administrator)**

* Challenges in scheduling:
* Often receives complaints from patients about billing discrepancies due to incomplete scheduling information.
* Record management:
* Struggles with reconciling billing records with treatment data from various departments.

## IT Teams

**Profile 1: Rajesh Singh (Role: IT Manager)**

* Technical limitations:
* Current scheduling and record management systems are not integrated, leading to data silos.
* The hospital network experiences frequent downtimes, impacting online services.
* Potential enhancements:
* Proposes integrating an advanced Hospital Information System (HIS) for seamless data flow.
* Recommends implementing a cloud-based appointment system for scalability.

**Profile 2: Laura Simkow (Role: Software Developer)**

* Technical limitations:
* The online appointment system lacks user-friendly interfaces, causing user complaints.
* Security vulnerabilities in the legacy systems need urgent attention.
* Potential enhancements:
* Suggests adding real-time notifications via email/SMS for appointment updates.
* Advocates for data analytics tools to monitor patient trends and resource usage.