Boston Medical Center Transport Delays: Problem Statement

BMC is facing significant patient transport delays to and from its Preoperative Areas. According to 2022 data, 37% of transportations take longer than 30 minutes, resulting in suboptimal utilization of the Operation Rooms, employee frustrations, and concerns about patient safety and health outcomes.

Transport Process: Analyses

- **Move Delay**
- **Assignment Delay/Issues**
- **Readiness Delay**

Drivers of Delays: Findings

- System lacking human capital capacity to clear intraday pileups.
- System is sensitive to variability in service time and arrival time.
- Interdependency of process flows highlights insufficient inter-unit communications mechanisms.

Capacity Limits:

- 1.2 transporter indicate 101% utilization rate

Optimal Utilization:

Total transport time exceeds 30 minutes at 66% utilization rate, or at 1.75 transporters

Graph: Capacity Compared to Demand

Graph: Effects of Utilization on Total Time

Recommendations: How to prevent delays

- **‘Patient-readiness’ checklist**
  - Formalize steps to be followed by stakeholders

- **Collection Centers for Equipment**
  - Such as beds and wheelchairs

- **Capacity Prediction**
  - Signals for capacity reaching limits

- **Communication Channels**
  - Improve inter-depart. information exchanges