NEW INNOVATIONS TO IMPROVE PATIENT FLOW IN THE ED AND HOSPITAL

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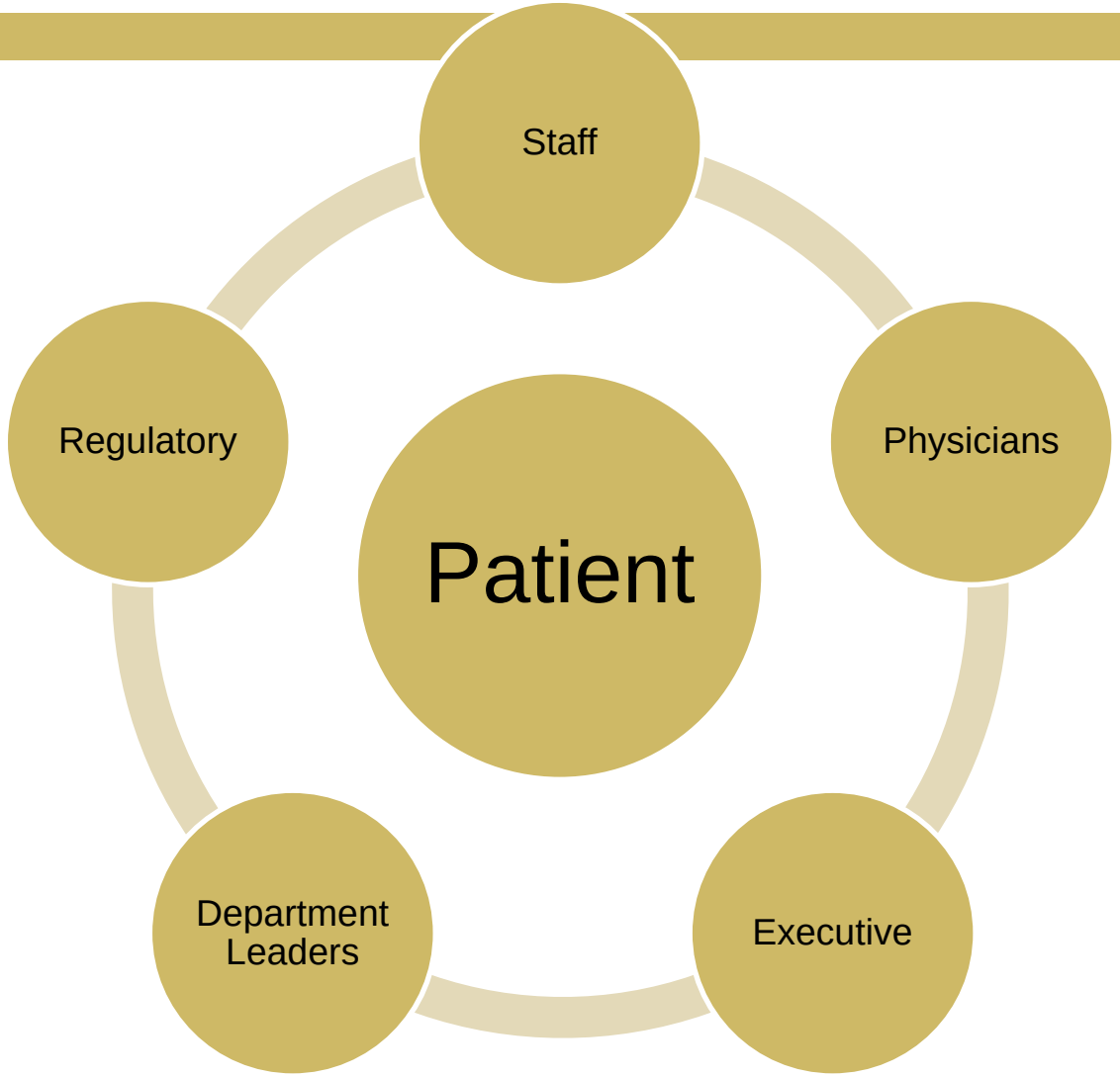
Outline

1. Top Innovations ED and Hospital
2. Top Barriers
3. Steps to Eliminate Barriers
4. ROI Leverage
5. Summary

Areas of Excellence

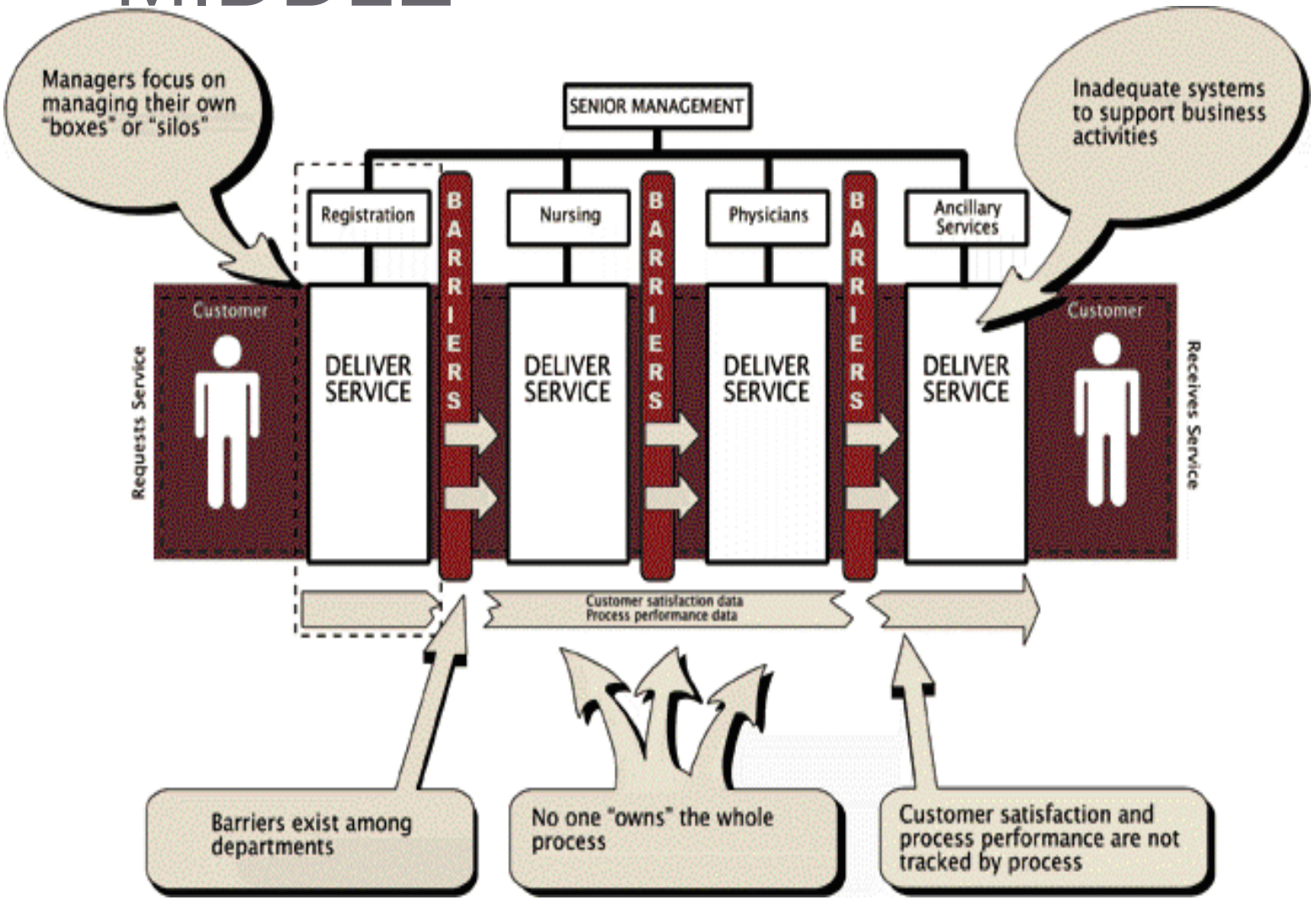
- Executive leadership engaged with ED initiatives as a priority
- The hospital has made substantial flow progress
- Significant progress on ED leadership and medical staffing
- ED overcrowding is not a problem (i.e. no ambulance diversion)
- Inpatient admission process does not seem to be the large bottleneck as it is in many other communities in the country

Patient Centered Care



Barriers to Success

Putting the PATIENT in the MIDDLE



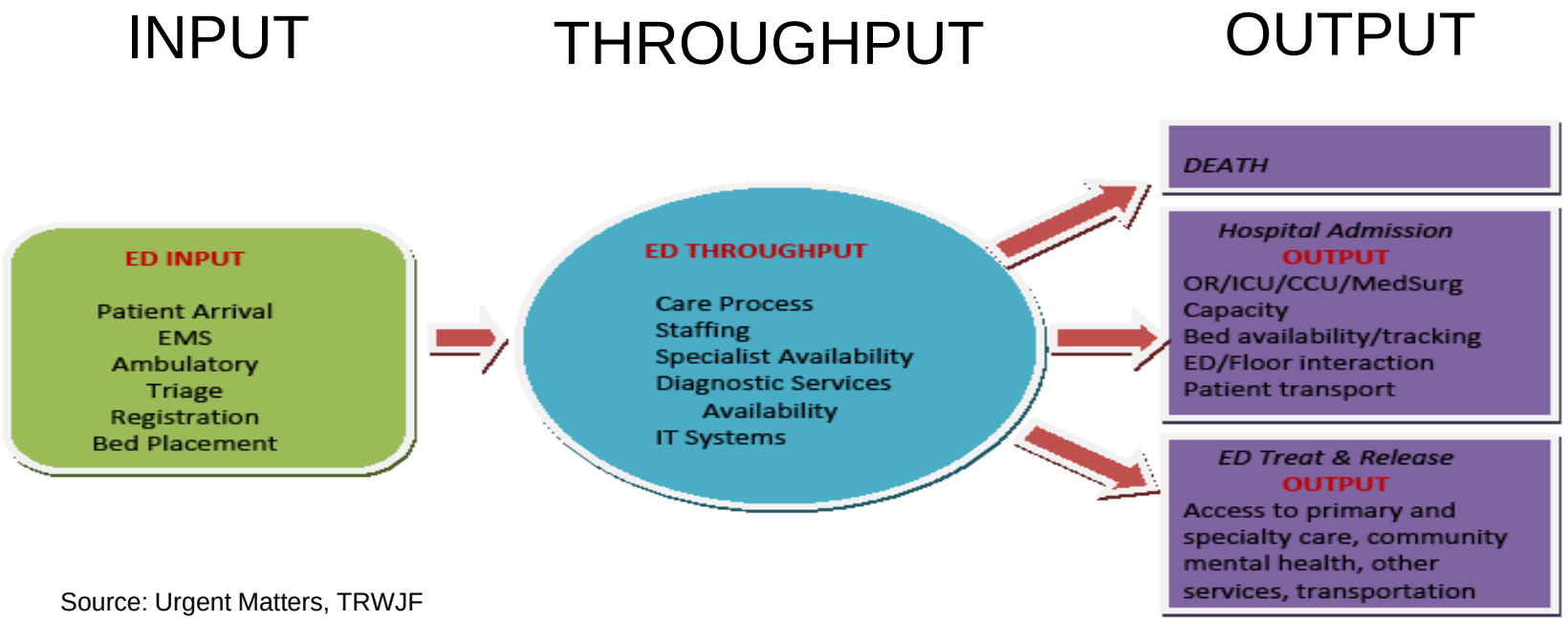
Source: Mike Hill, MD

Hospital Throughput – Barriers to Success

- Lack of executive resolve
- Lack of longer-term accountability
- Lack of accurate metrics
- Trying to solve the wrong problem
- Environment that does not encourage true “innovations”

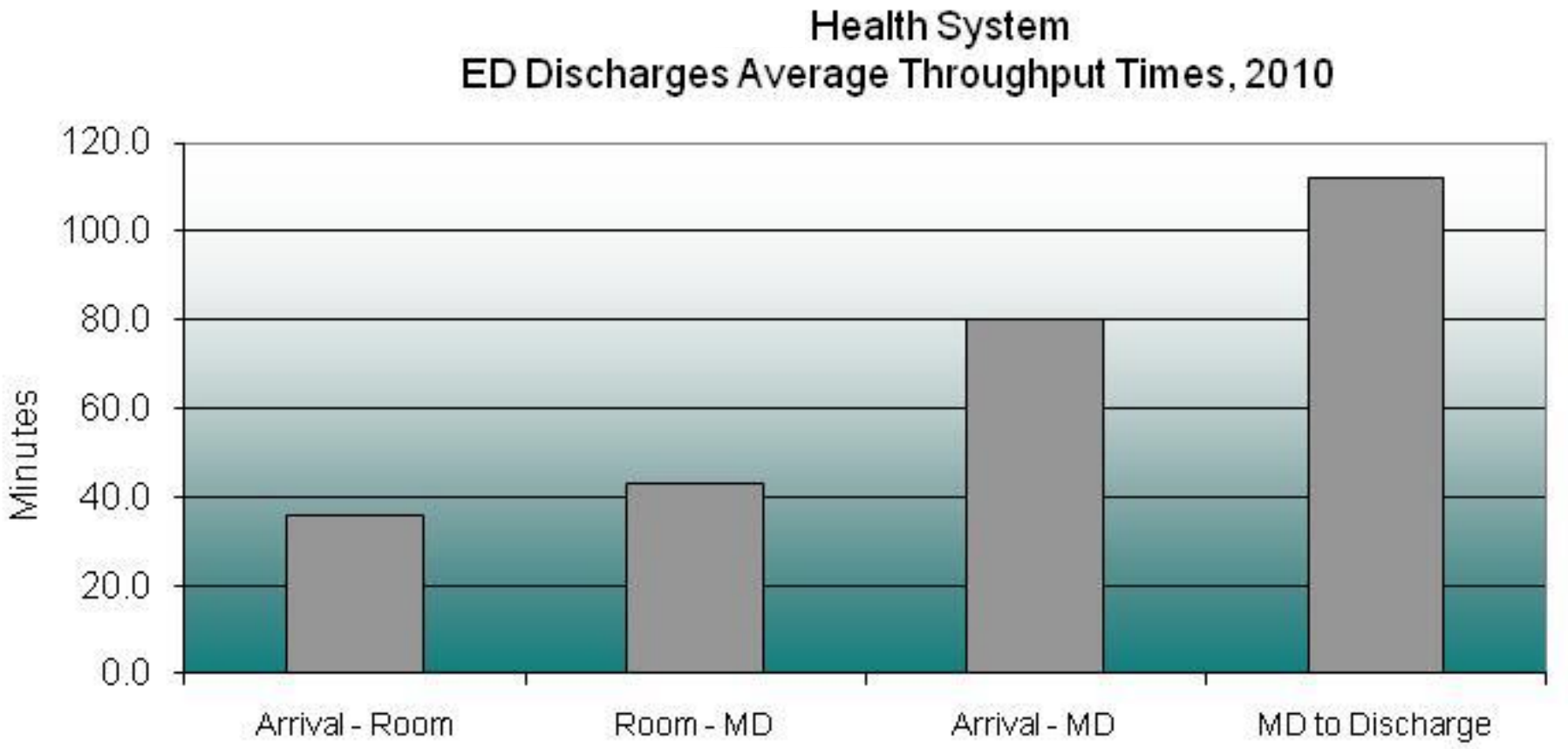
ED Assessment

Designing for ED Processes



Source: Urgent Matters, TRWJF

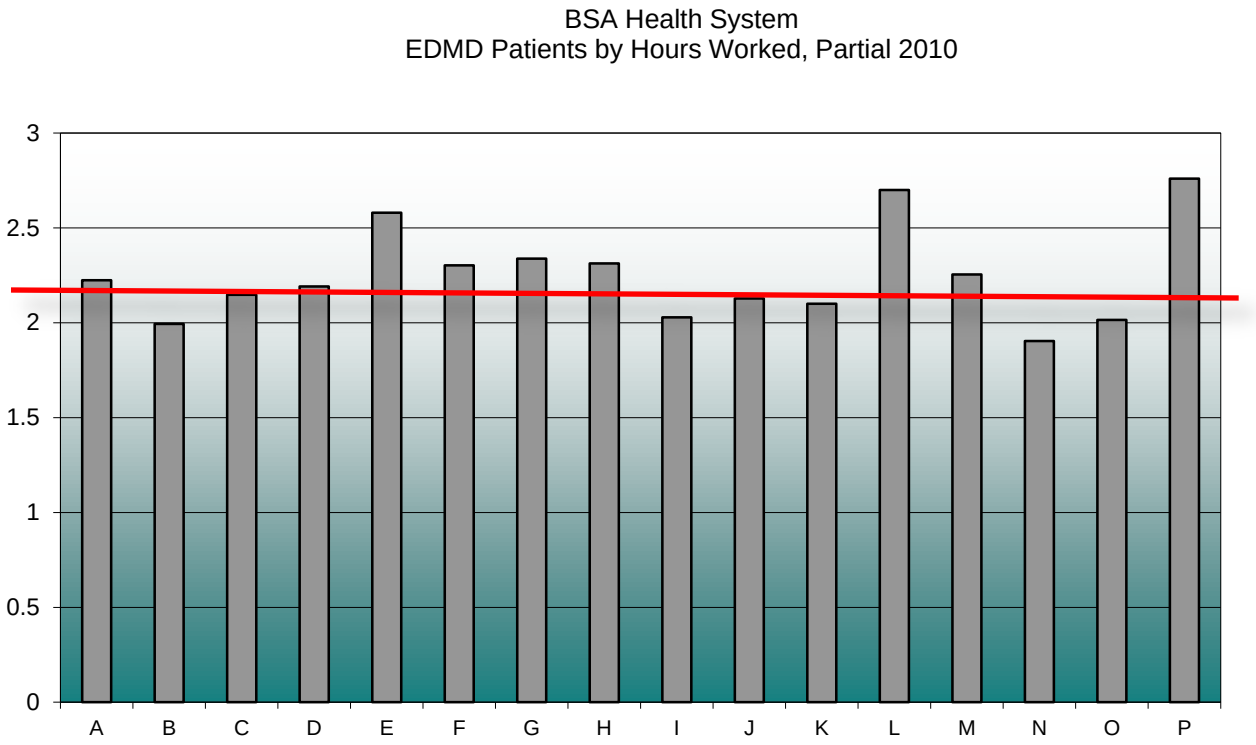
ED Process Bottlenecks



ED Assessment - Top Barriers

- Intake
  - Greeting of patients missing
  - Team Triage not effective and has some design flaws
  - Triage assessment too lengthy, cumbersome
- Throughput Phase
  - Lab/rad. utilization not addressed
  - Care team communication

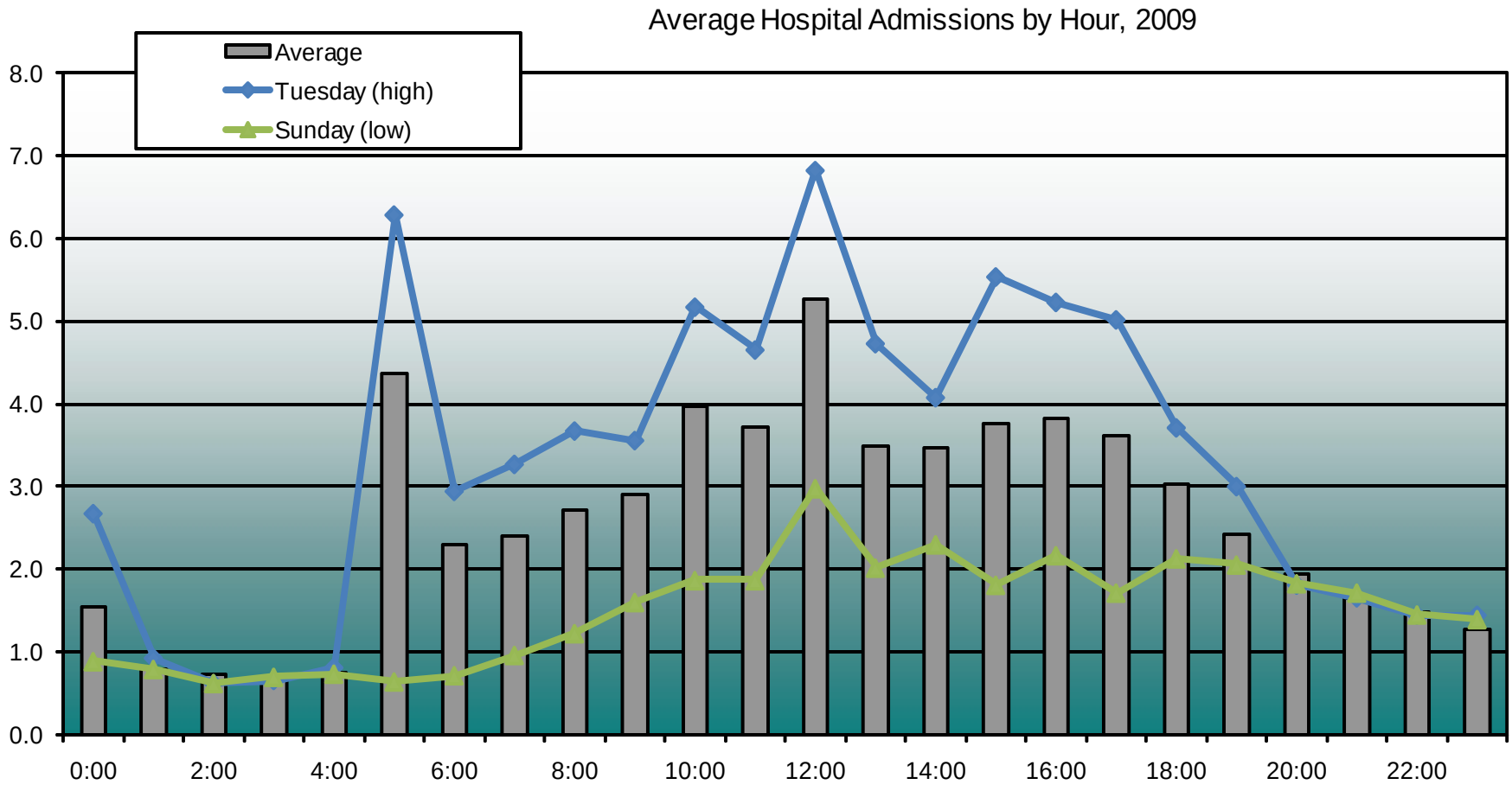
ED Assessment - Top Barriers

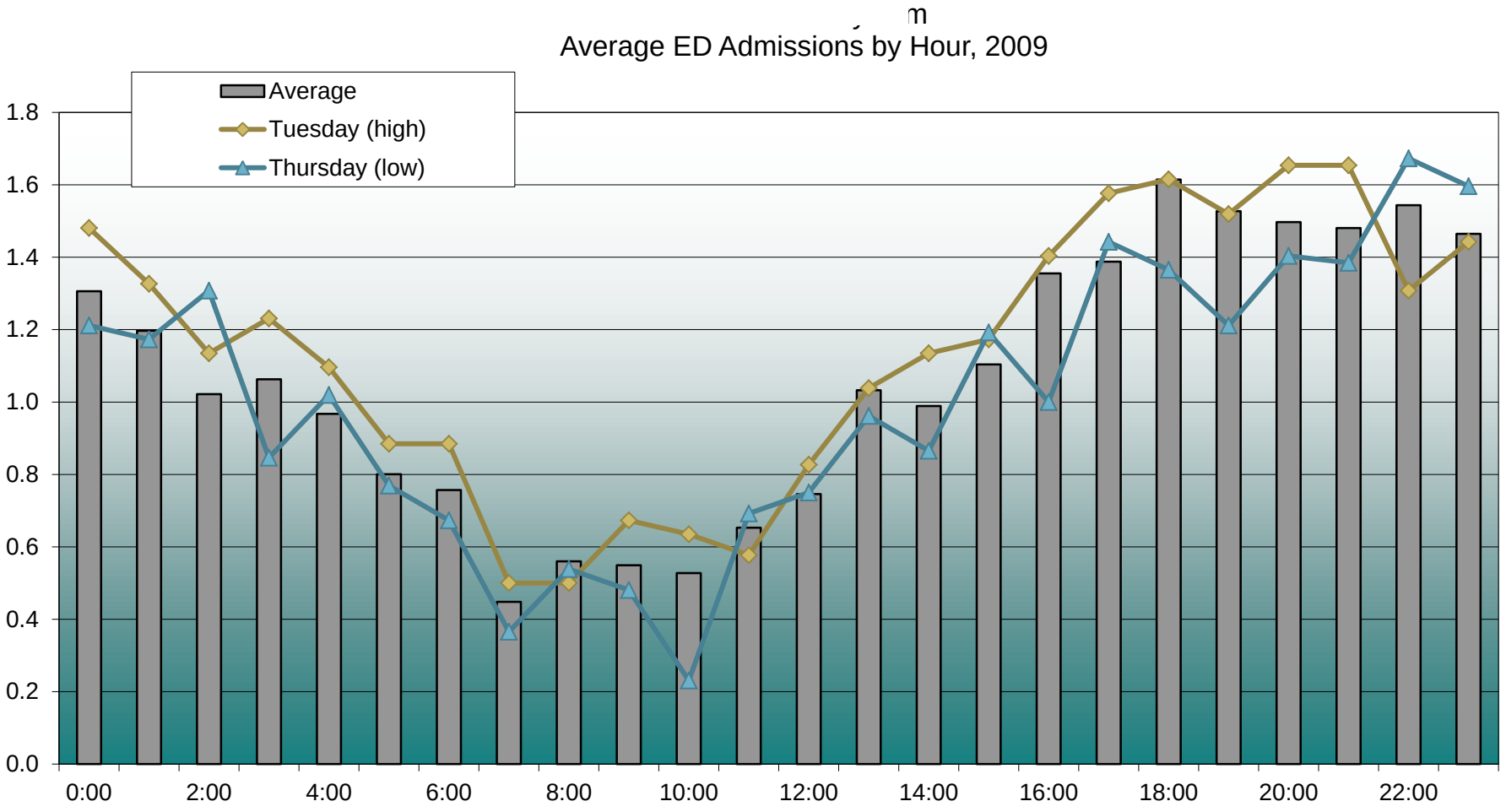


ED Assessment - Top Barriers

- Output Phase
  - Length of dispositions
  - TAT the longest in the care process
  - No accelerated discharge mentality
  - Resident/hospitalist workups

Inpatient


Average Hospital Admissions by Hour, 2009
Average
Tuesday (high)
Sunday (low)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00

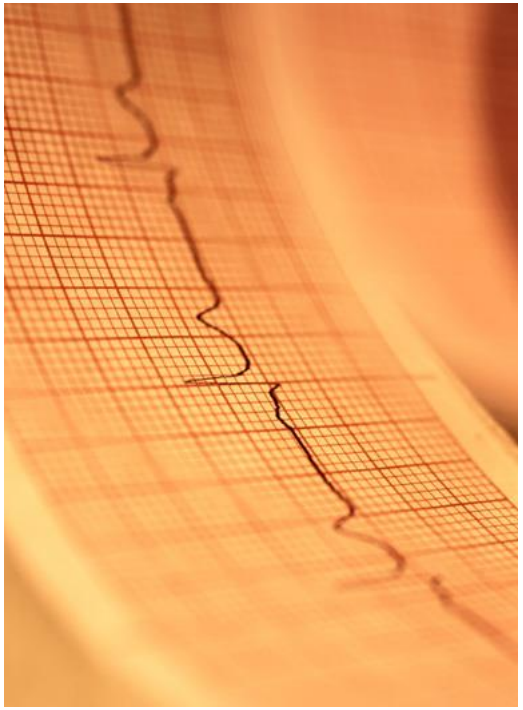

Average ED Admissions by Hour, 2009
Average
Tuesday (high)
Thursday (low)
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00

Potential Inpatient Assessment - Top Barriers

- Admission criteria not utilized consistently
  - ICU
  - Tele/step down units
- Complex admission process utilizing multiple systems
  - Silos in patient movement
  - Overlap of responsibilities
  - No clear expectations and authority
- No Capacity Command Center (CCC)

Possible Product Lines

- Clinical Decision Unit (CDU)
- Rapid Admission Unit (RAU)
- Discharge Lounge (DL)



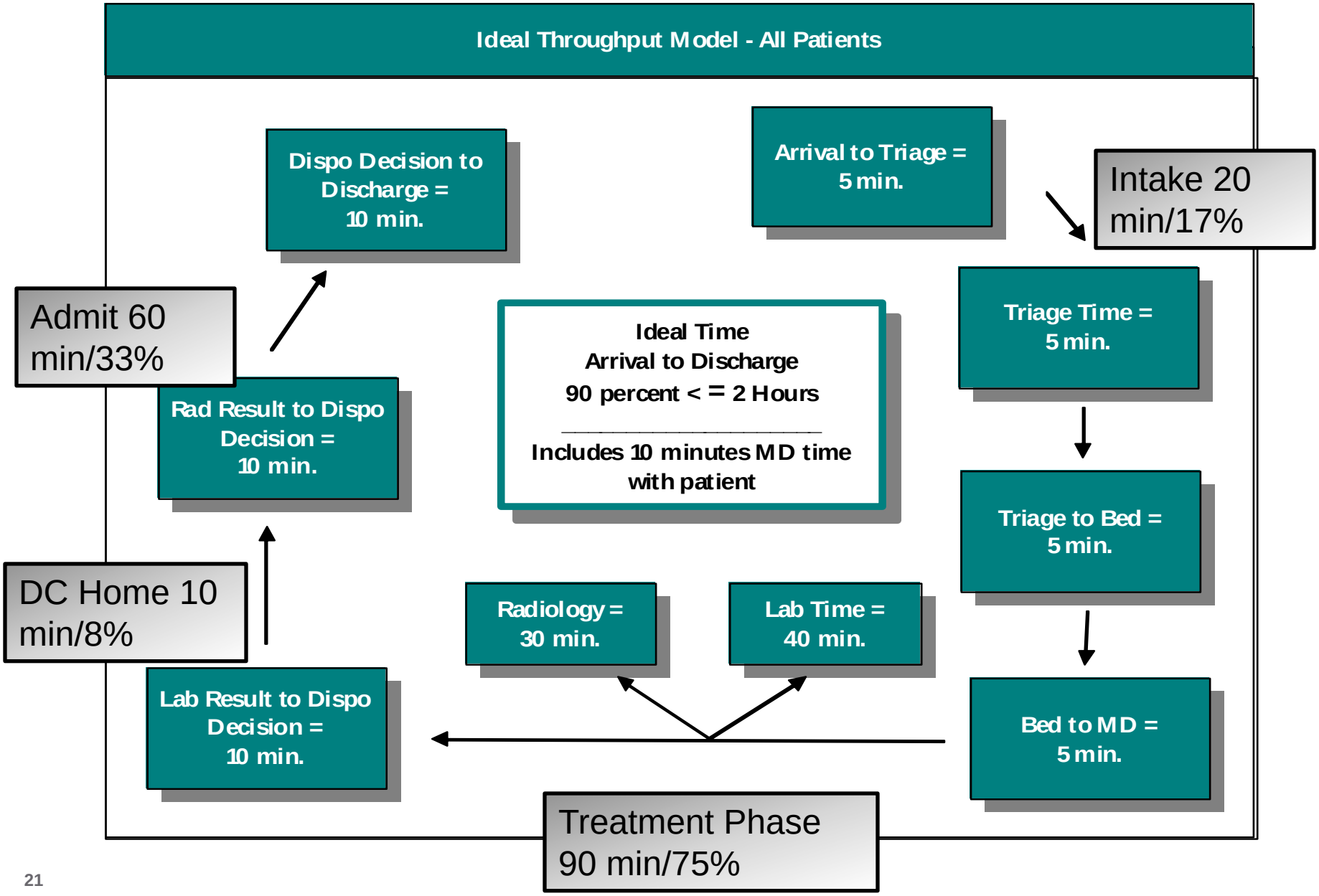
Discharge Batching

Current industry standard the discharge process promotes batching. Batching has been found (IHI) to:

- Promotes a continuous admission flow
- Is not patient or staff friendly
- Does not promote an effective nursing workload
- During crisis results in a “hurry up and call for discharges” mentality (non-productive for administrative, medical and nursing staff)
- Assumes that the physician is available to call back
- Creates a reactive as opposed to proactive culture

ED Recommendations

- Redesigning of intake process
  - Rapid Medical Evaluation (RME)
  - All universal rooms (nearly there)
  - Direct to bed – “Pull until Full”
- Development of a Rapid Medical Treatment product line
- In-depth study of lab/rad. utilization process
- Investigate more robust Point-of-Care/Stat Lab
- Re-align staff and skill set around demand and skill needs


Ideal Throughput Model - All Patients
Arrival to Triage = 5 min.
Intake 20 min/17%
Triage Time = 5 min.
Triage to Bed = 5 min.
Bed to MD = 5 min.
Dispo Decision to Discharge = 10 min.
Admit 60 min/33%
Rad Result to Dispo Decision = 10 min.
DC Home 10 min/8%
Lab Result to Dispo Decision = 10 min.
Radiology = 30 min.
Lab Time = 40 min.
Ideal Time
Arrival to Discharge
90 percent < = 2 Hours
Includes 10 minutes MD time with patient
Treatment Phase 90 min/75%

Streamline ED Intake & Ordering

- Focus on getting the patient to the provider
  - When beds are available, take patient directly to a bed, bypassing triage.
  - When beds are not available, utilize a quick triage followed by the RME concept outlined above
- Implement a “pull until full” process for ED nurses to bring back patients from the lobby to empty beds

Streamline ED Intake & Ordering

- Focus on getting the patient to the provider
  - When beds are available, take patient directly to a bed, bypassing triage.
  - When beds are not available, utilize a quick triage followed by the RME concept outlined above
- Implement a “Wipe out Waiting” philosophy
- Support with:
  - Leadership staff (charge and manager(s))
  - Metrics for *all* intervals

Streamline ED Intake & Ordering

- Create an ED Greeter role, possibly in conjunction with the security guard stationed at the front desk
  - Interact with waiting patients, families and to assist with way finding and follow up after triage
  - Scripting and a written process should be developed to assist the greeter in their role.

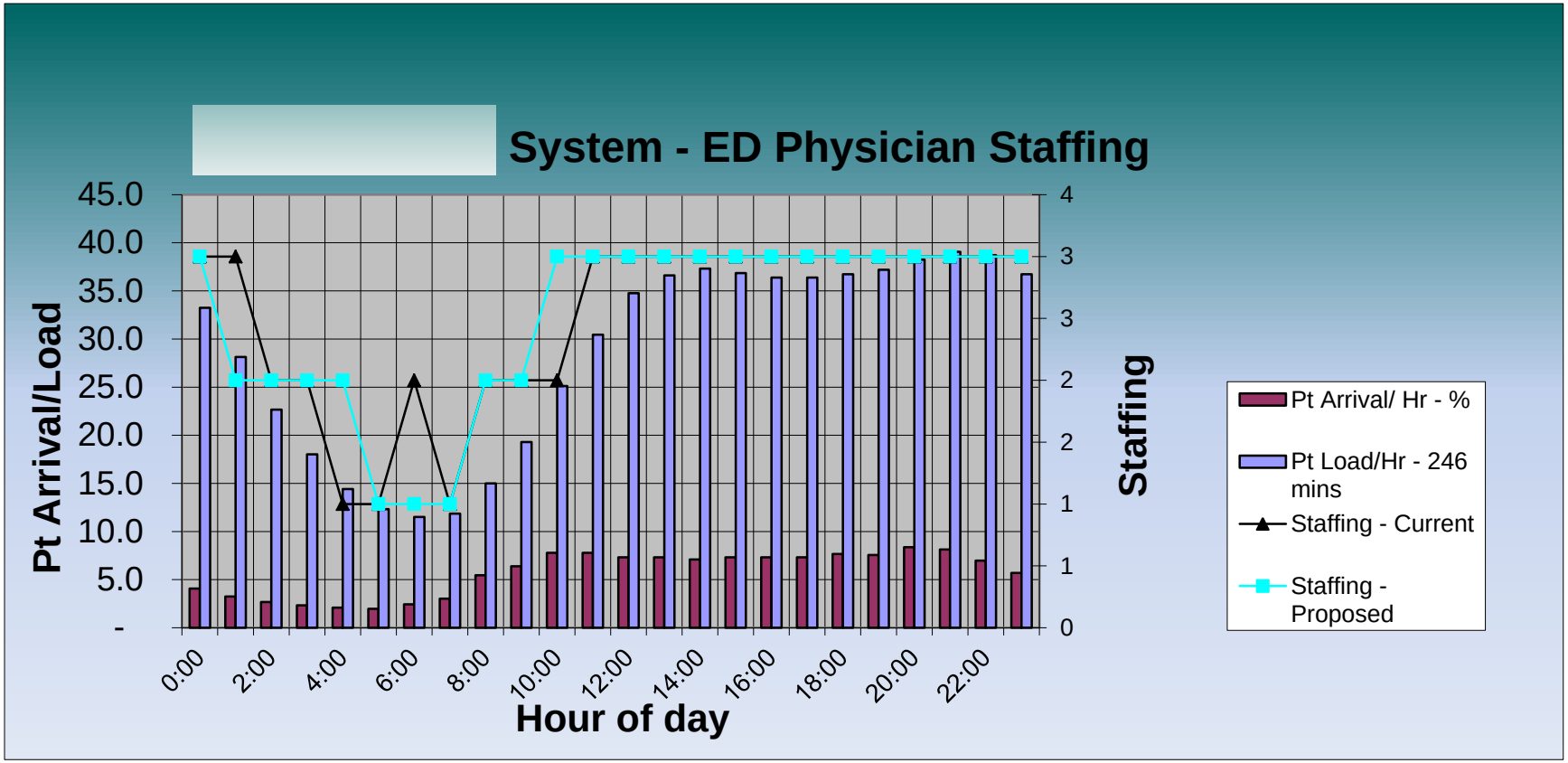
Streamline ED Intake & Ordering

- Establish protocols for top diagnoses
  - Improve utilization of chief complaint driven protocols or physician care maps in the ED
  - Reduce delays by streamlining progression of patients along the treatment process
  - Initiates tests or patient care if there are unavoidable delays in getting the patient to the provider

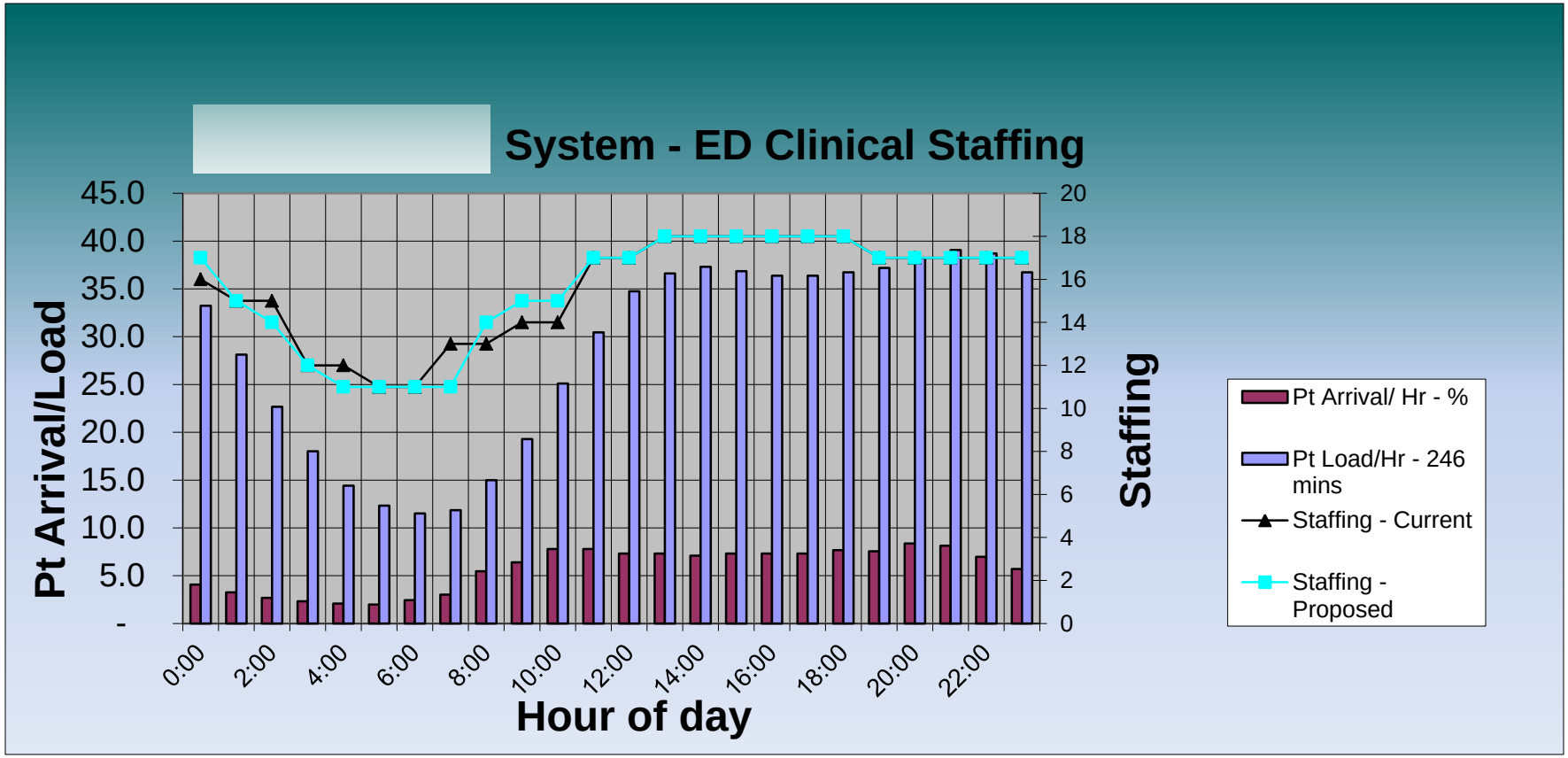
Triage

- Triage should never occur when beds are available
- Develop tiered triage process
- Direct-to-bed process should always occur when beds are available
- Develop a greeter position
- Eliminate processes that prolong triage process

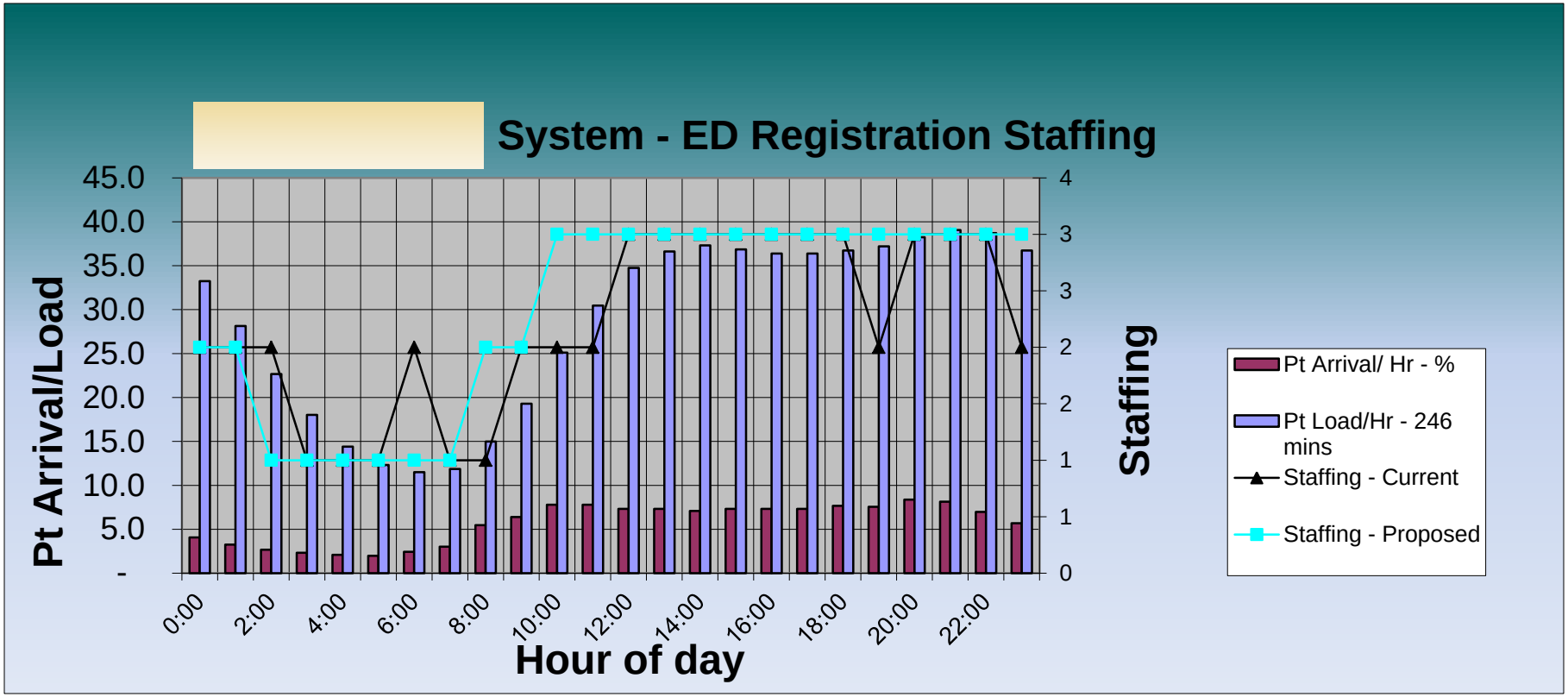
Staff by Demand – ED Physician



Staff by Demand - Clinical



Staff by Demand - Registration



Treatment & Admission Options

- Develop and use protocols and/or pathways to anticipate the needs of consulting physicians
- Use “Bridge Orders”, “Transitional Orders” or “Timed Out Orders” written by the ED physician
- Develop written expectations on response times to ED provider from attending, hospitalists, & residents

Discharge Slotting

According to the IHI, discharge slotting creates:

- Improves patient satisfaction
- Identifies up to a 40 percent capacity waste
- Decreases length of stay by ½ day
- Promotes nursing to manage their shift more efficiently
- Reducing capacity waste by 10-15 percent can eliminate most bottlenecks
- Discharges can be synchronized to the admission process. Admits are linked to the planned discharges based on a master schedule
- Smoothing of the surgery scheduling process that fits well with the repetitive nature of the surgical schedule
- Improves effective management of ancillary resources, i.e. housekeeping

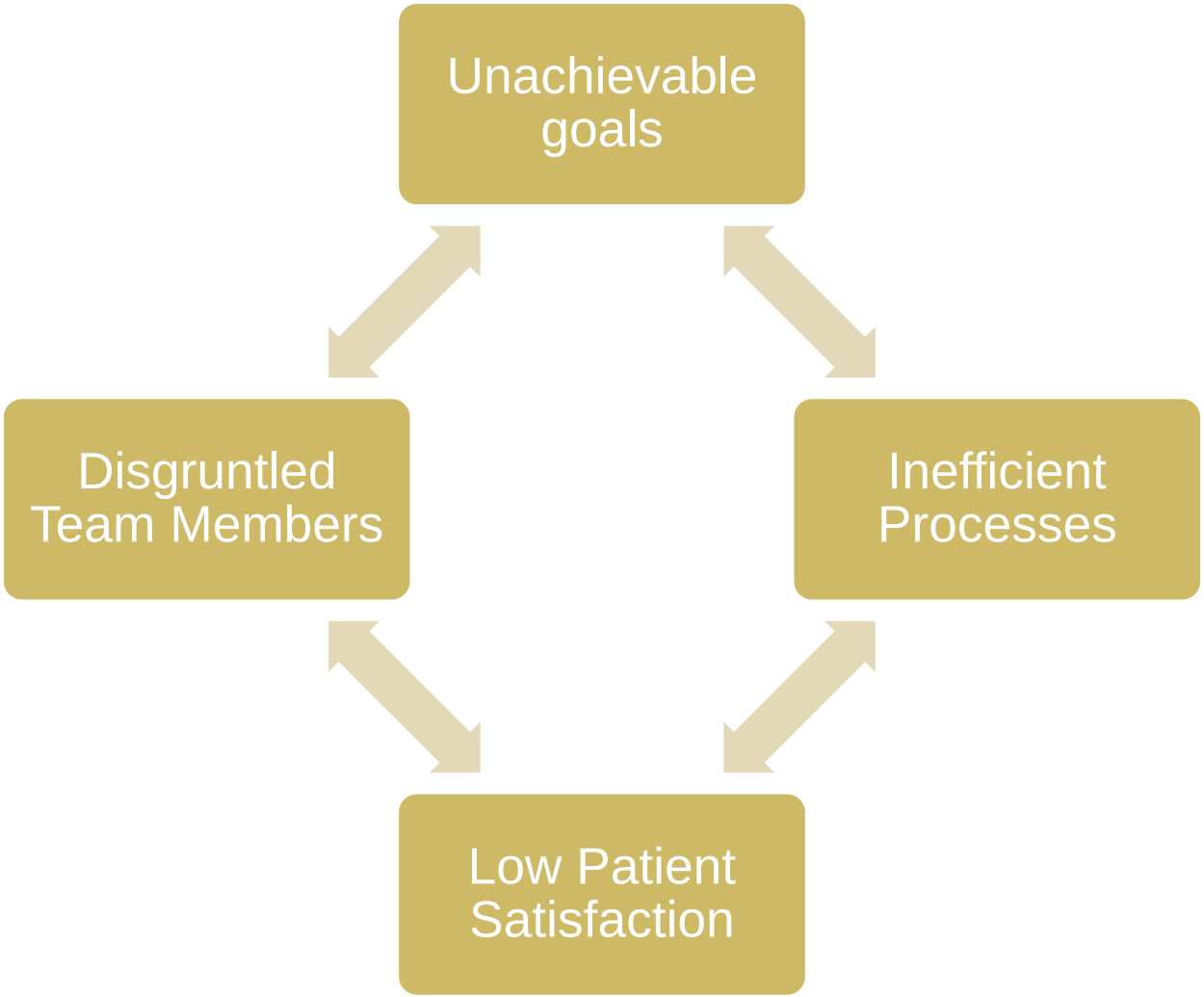
Maximize Relations

- Improve mutual expectations & understanding between ED and non ED physicians
- Assign house-wide clinical leadership to High Impact Teams (HITs) to address patient flow & capacity
  - Foster ownership across departments for patient flow in all areas of BSA
  - Eliminate cultural barriers which allow silo mentality

Data Collection Process/Data Use

- BSA is a data-rich environment
- Information poor
- Departmental leaders difficult obtaining operational data timely or at all
  - Staffing by demand
  - Throughput intervals
  - Utilization rates (lab/rad.)
- Is the right person seeing the right data
- Use fractile data not averages

Averages set you up for:



Establish Customer Satisfaction as a Key Priority

- Reinforce the importance of customer service in hospital commitments
- circuit television providing information about their hospital visit
- Establish immediate objectives to meet customer needs
- Improve consistency of and develop scripting for departmental patient rounding
- Improve and maintain staff satisfaction to support customer satisfaction

Develop & Sustain Key Initiative Success Features that Support a Change Process

- Establish and document clear executive goals, incentives and accountabilities for the initiatives
- Collaboratively develop the initiatives around these goals
- Create an environment and culture of profound re-thinking of all existing processes and permissions to "think outside the box"
- Use accelerated and empowered decision-making tools such as the High Impact Team (HIT) process
- Set "real-time" goals with support metrics

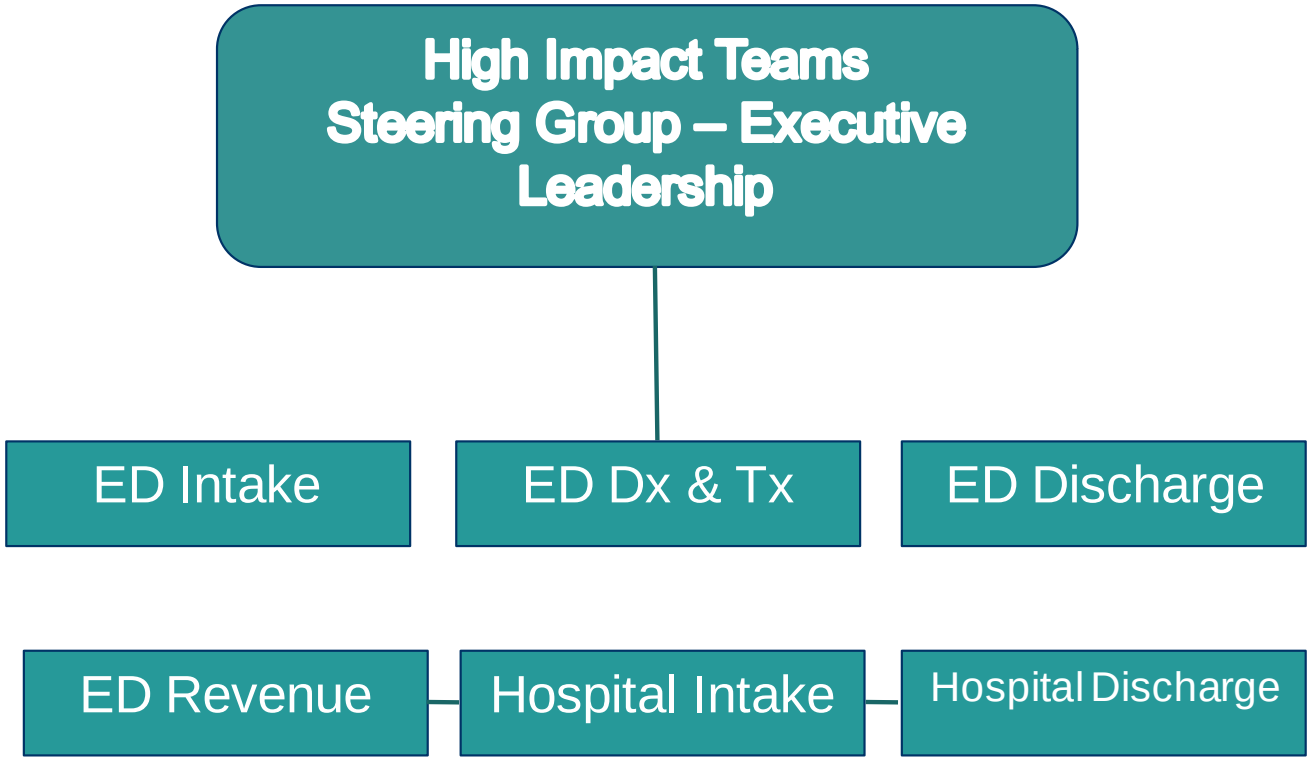
Phase II - Implementing Change

- The impact of culture on change (“process and the people”)
- Teamwork
- Planning Change
- High Impact Teams (HIT)
  - One to Three cycles of HIT
  - Facilitation by Abaris
- Accountability

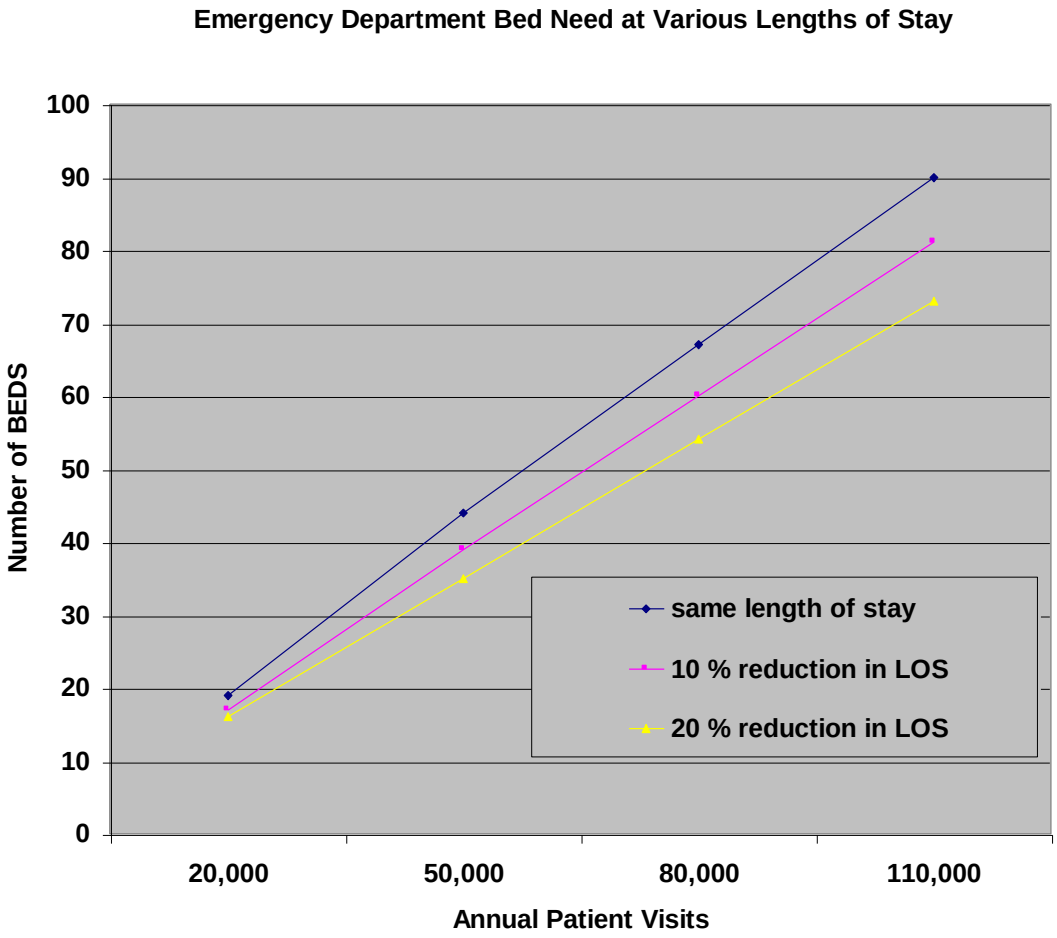
HIT Team Concept

- Utilization of front line staff
- Empowered to change processes
- Systematic process of problem identification, brainstorming solutions, rapid cycle testing, and implementation of interventions.
- GOAL = Sustain Measurable Change

HIT Team Concept



Making a Business Case for Flow



Improvement in ED throughput produces at least:

10% = 5 beds

15% = 10 beds

20% = 15 beds

The First Law of Improvement

"Every system is perfectly designed to achieve exactly the results it gets."

— Don Berwick, MD

President

Institute of

Health Improvement

Questions?