



Patient Progression:

A Hospital Wide, Data Driven Approach to Move Patients Safe & Efficient

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The presenter for this presentation has disclosed no conflict of interest related to this topic.



Duke Regional Hospital

- Established in 1976
- Joined the Duke system in 1999
- Health System Magnet Designation
 - 369 licensed beds
 - 700 + nurses



Duke University Hospital

- Established in 1930
- Health System Magnet Designation
 - 943 licensed beds
 - 3200 + nurses



Duke Raleigh Hospital

- Established in 1914
- Joined the Duke system in 1998
- Health System Magnet Designation
 - 186 licensed beds
 - 500 + nurses



Duke Regional Hospital Superlatives



**American Heart Association
American Stroke Association
CERTIFIED**
Meets standards for
Primary Stroke Center





Duke Regional Hospital Demographics



Hospital Statistics for Fiscal Year 2017

- Inpatient Admissions: 16,394
- Emergency Care Visits: 61,852
- Births: 2,382
- Surgeries: 14,512
- Number of Physicians: 988
- Number of Employees: 1,935

Facilities

- Duke Regional Hospital
 - 369 licensed beds
 - 18-bed level II Special Care Nursery
 - 23-bed Psychiatry Unit
 - Duke Rehabilitation Institute
- Davis Ambulatory Surgical Center
- Health Services Center (407 Crutchfield Street)
- Watts School of Nursing
- Select Specialty Hospital (6th Floor)

180 Volunteers, who provided approximately 19,000 hours of service to patients, their loved ones and staff at DRH





Patient Progression

Longer patient wait times* in Emergency Departments results in:

Increased length of stay¹

Higher intensive care unit mortality¹

Increased mortality^{1,3}

Delayed orders²

Missed orders²

Medication-related delays⁴

Increased adverse events⁴

** Patients that are admitted but waiting for a bed*



Planning

Multi-disciplinary strengths, weaknesses, opportunities, threats (SWOT) analysis

- Telemetry unit
- Communication between key teams
- Clinical Staffing
- Admission Process
- Discharge Process
- Intra-facility Process
- Appropriate Bed Assignments
- Charge RN Development

Fishbone process

- Admission
- Discharge



Baseline Key Performance Indicators

Increased ED Length of Stay (ED LOS)	6.7 hours
Increased Left Without Being Seen (ED LWBS)	4.2%
Increased FY15 ED Volume	65,662 patient presentations*
Average Daily Occupancy FY15	64%

**Approximately 1,800 patients/rooms*



Strategic Objectives

Safe, efficient & timely movement of patients from admission to discharge

Decrease Emergency Department Length of Stay (ED LOS)

Decrease Left Without Being Seen (ED LWBS)

Decrease Admit Order to Bed Assigned metric



Strategic Objectives

- **Bed Placement Process pilot**
- **Hiring of Patient Placement FTE 0000-0800 Monday-Friday**
- **ED Nurse Navigator pilot**
- **Development of action plan to minimize time between when patient leaves the facility and when its marked in EHR**
- **Plan with EVS to ensure rooms marked clean in EHR are actually clean**
- Cohort General Medicine service
- Clarification of Step-down and Telemetry admission criteria
- Transition Care Unit pilot
- Admissions/Discharge RN pilot
- Development of Patient Progression dashboard
- Hiring of EVS FTE dedicated to discharge support

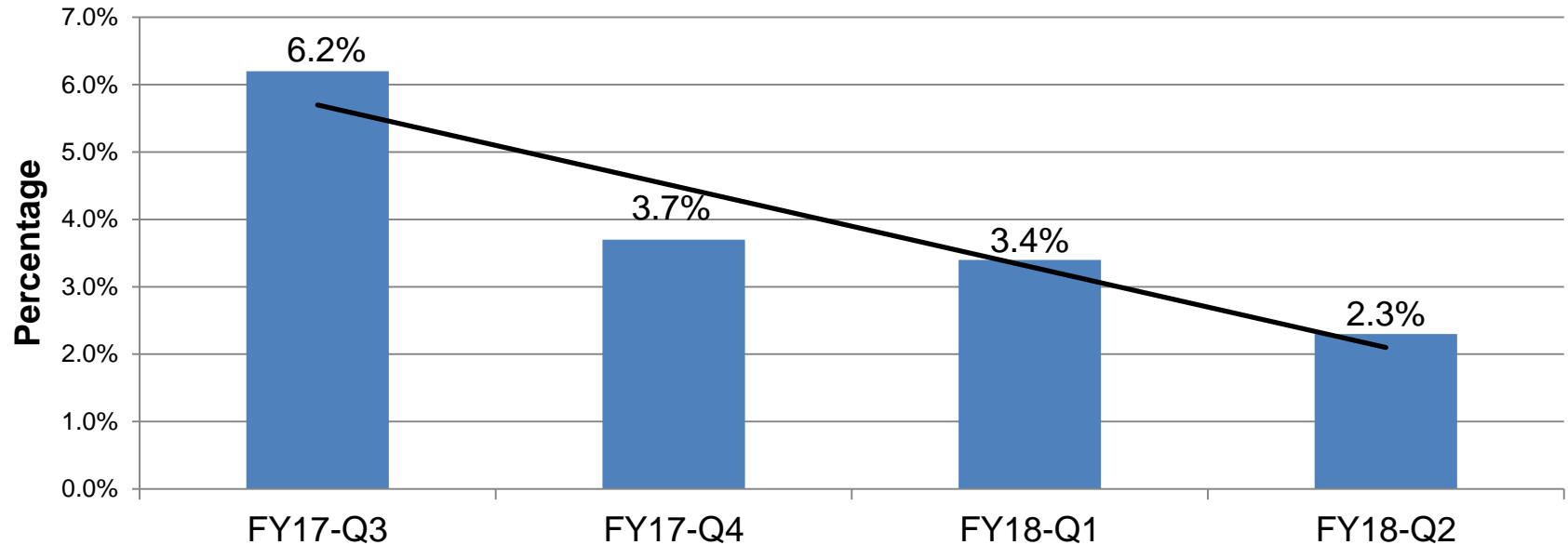


How does the Nurse Navigator Improve Flow?

- Urgently communicate or escalate any delays
- Pulling patients from the waiting room
- Creative bedding
- Appropriate movement of patients
- Discharging patients
- Admitted patients
- Triage liaison/bridging the gap

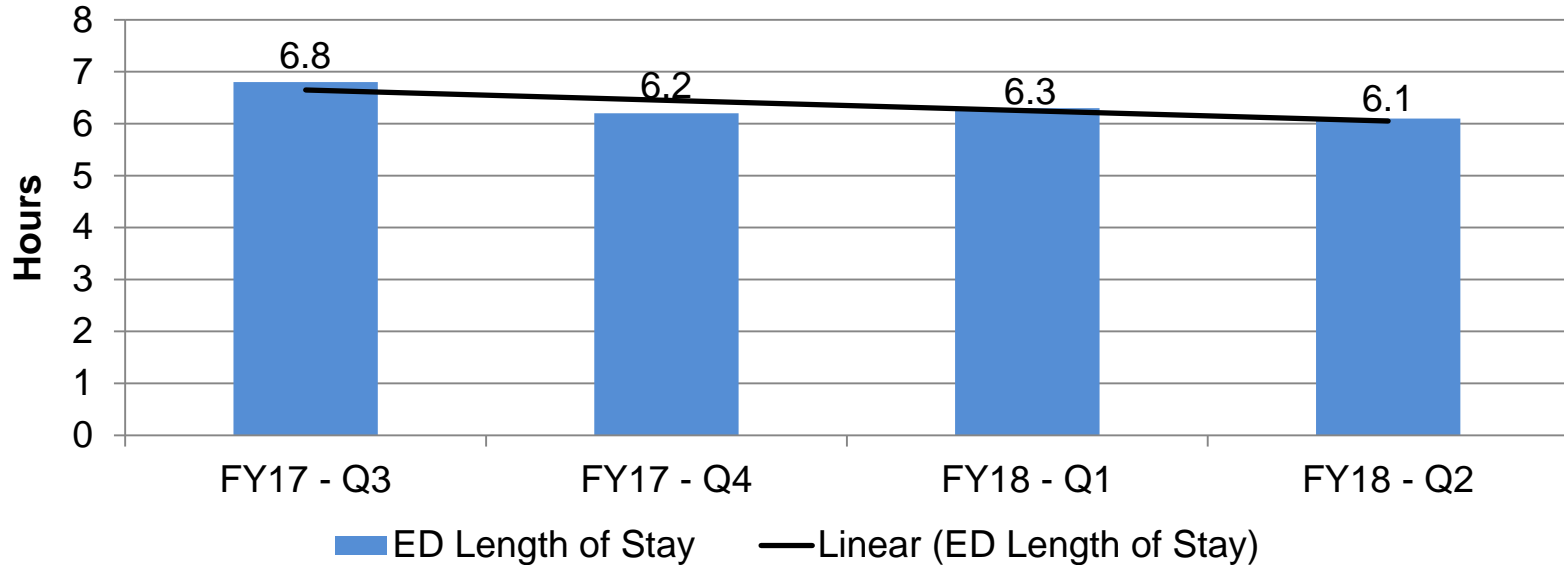


ED Left Without Being Seen (ED LWBS) by Quarter



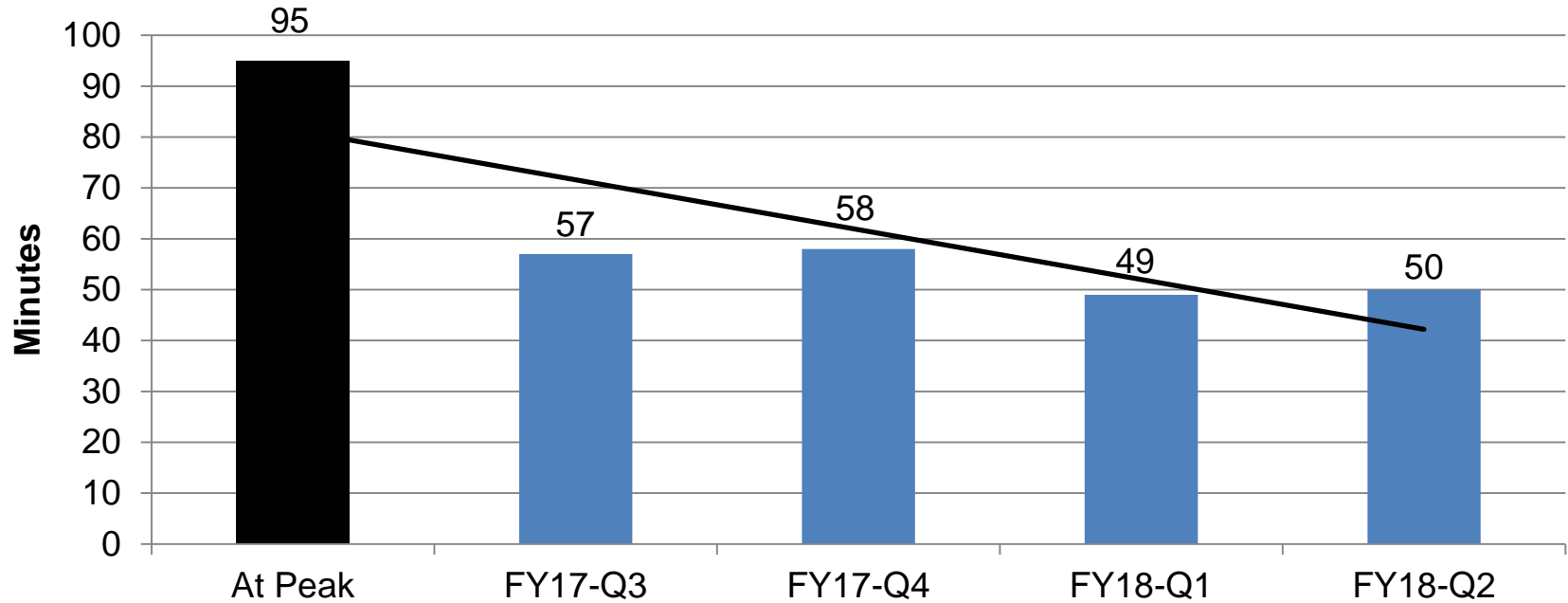


ED Length of Stay for Admitted Patients (ED LOS) by Quarter



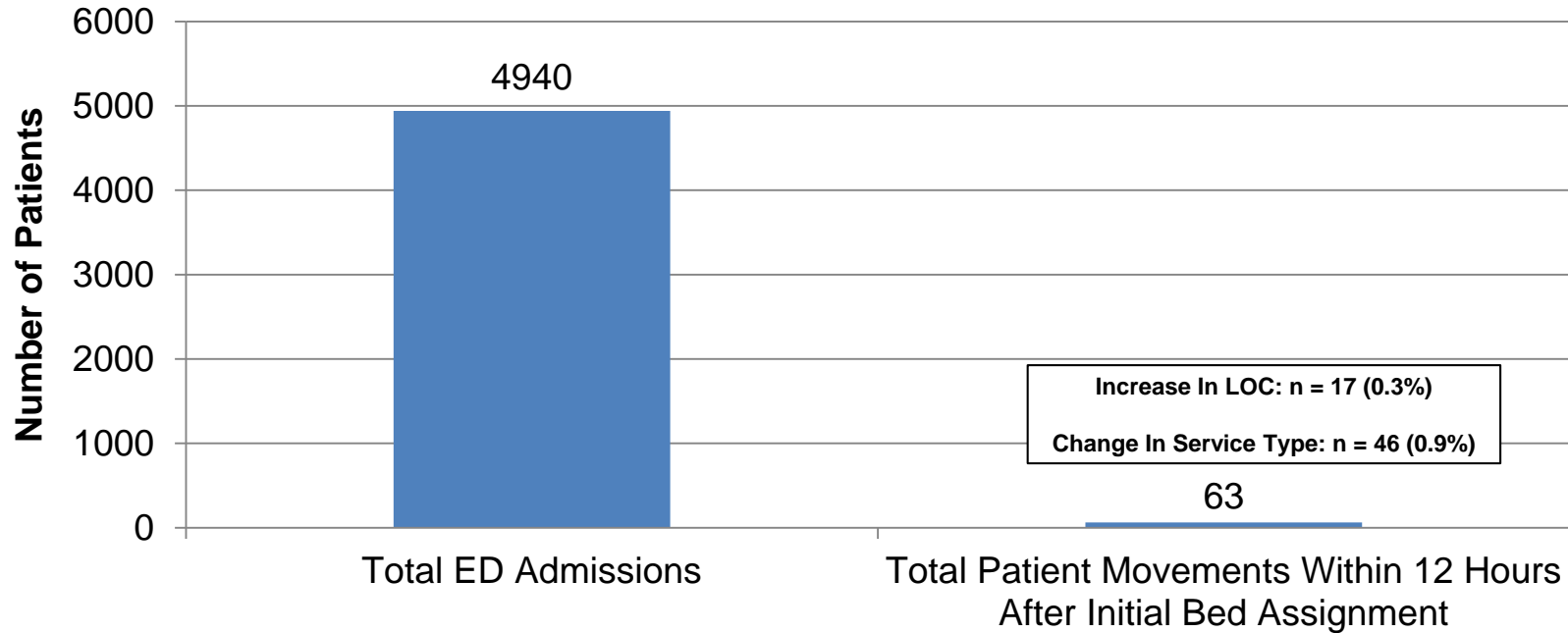


Admit Order to Bed Assigned by Quarter



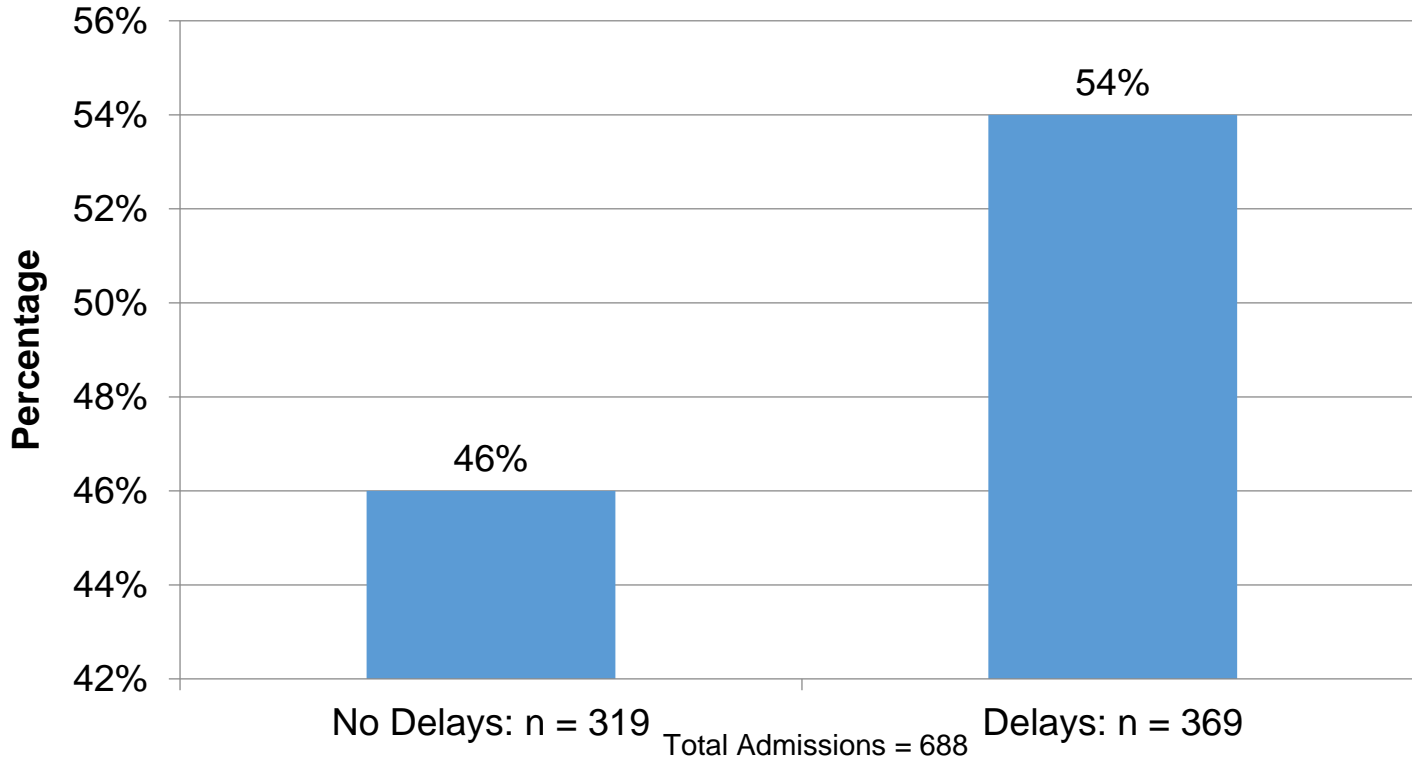


Admissions vs. Patient Movements April - September 2017



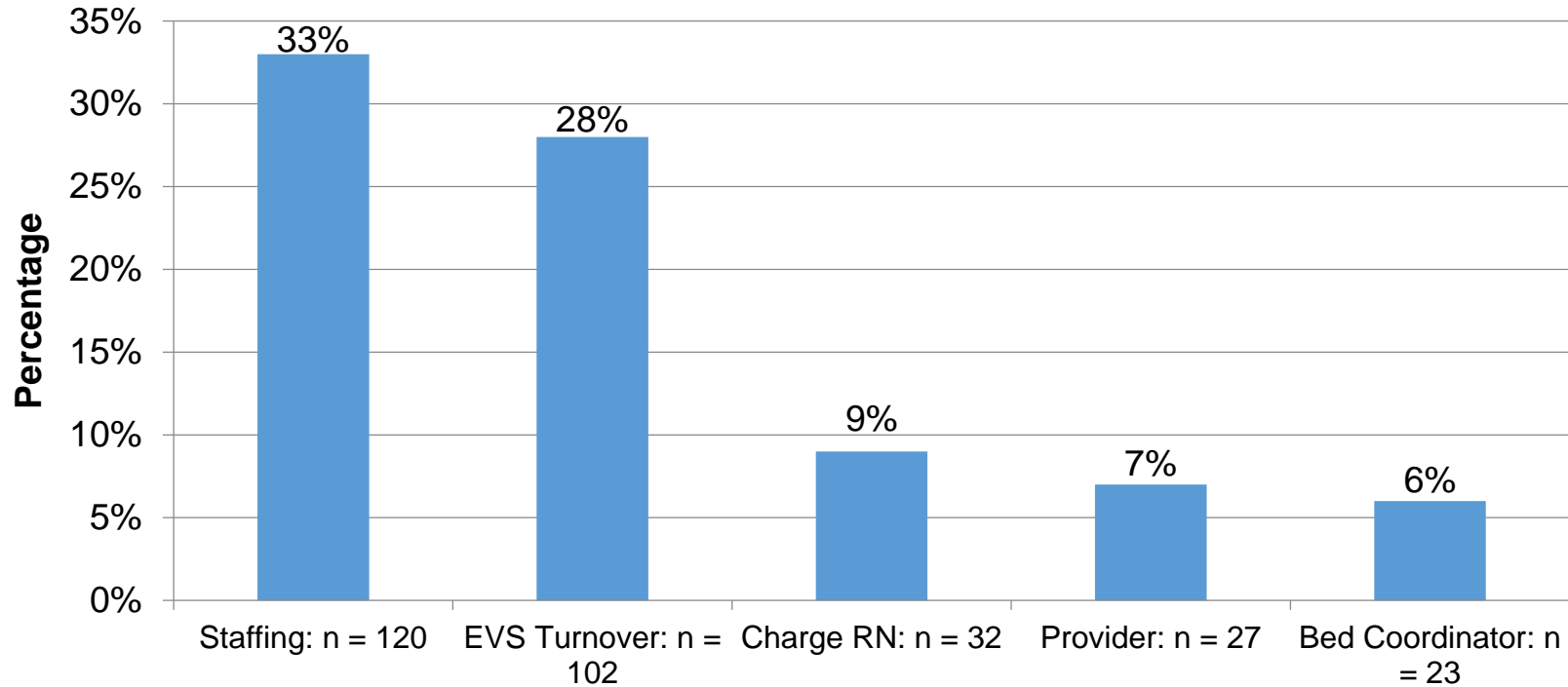


Delay Tracking



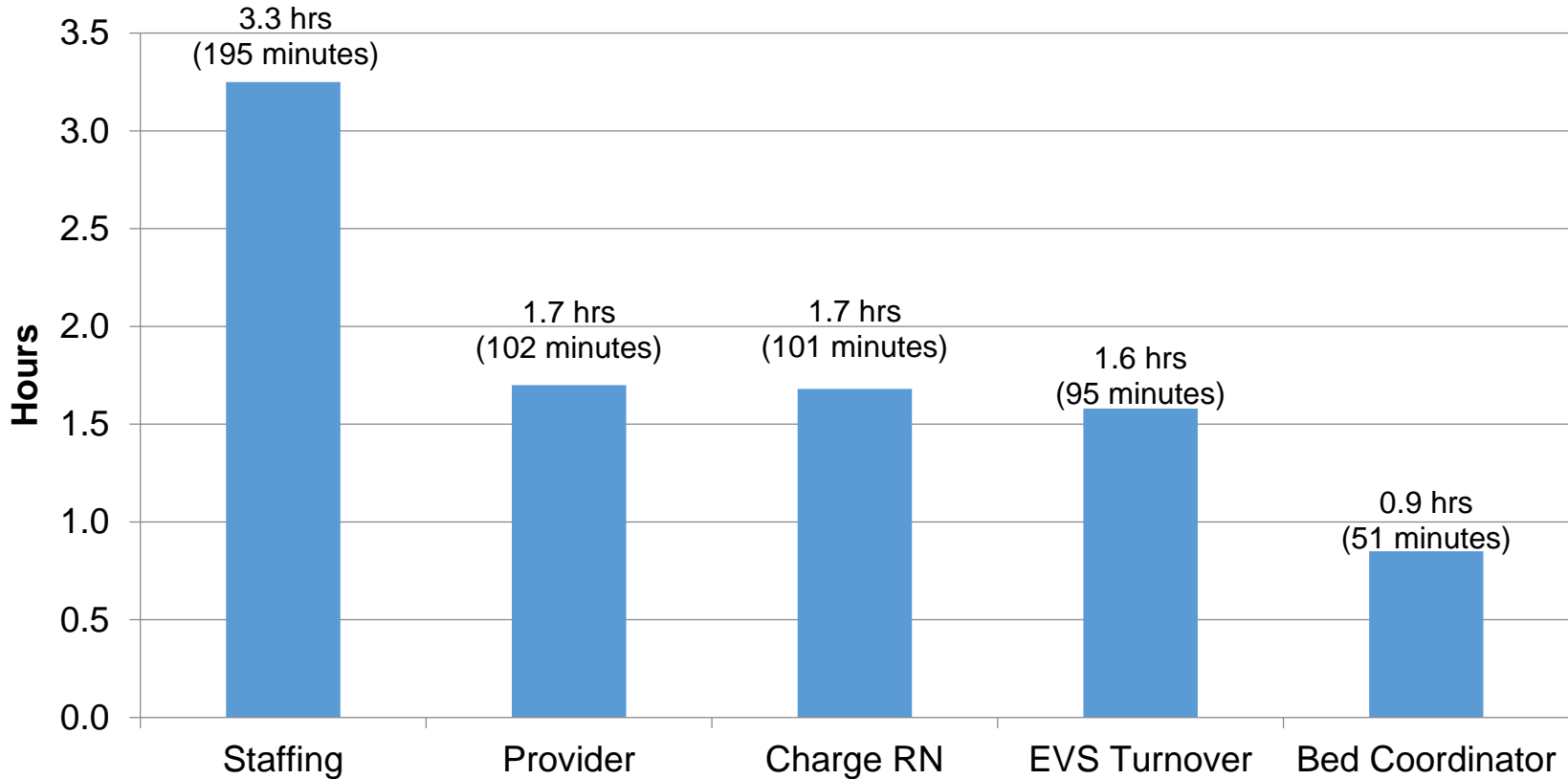


Top Five Delay Reasons



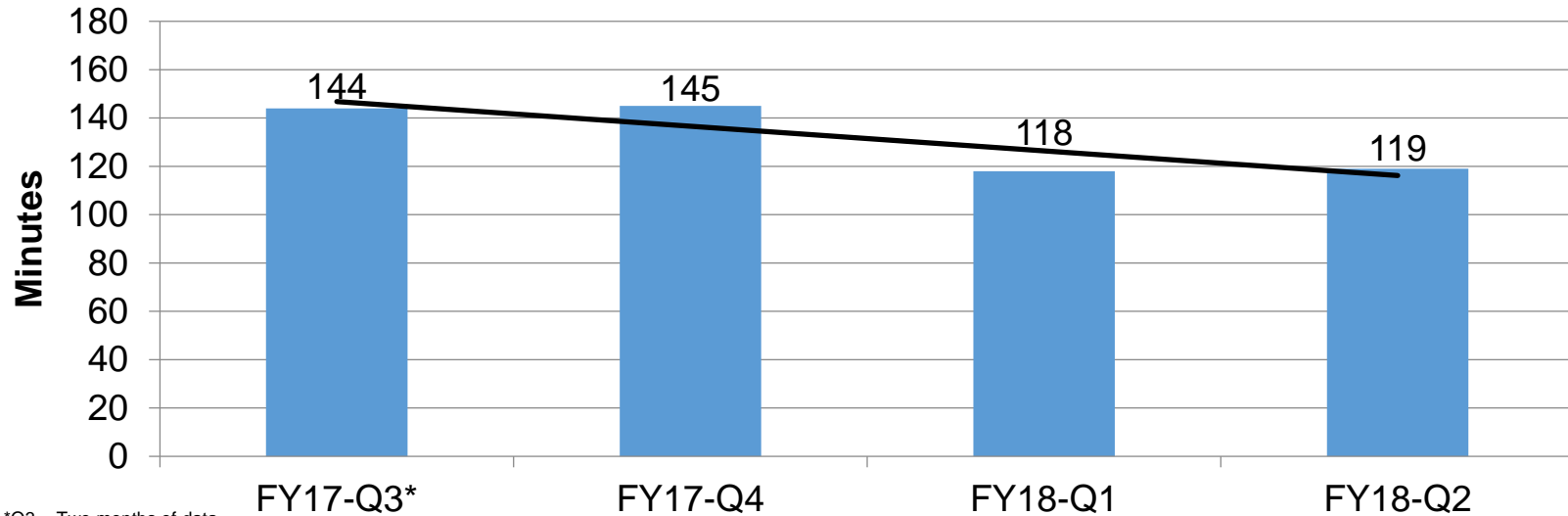


Average Hours by Delay Reason





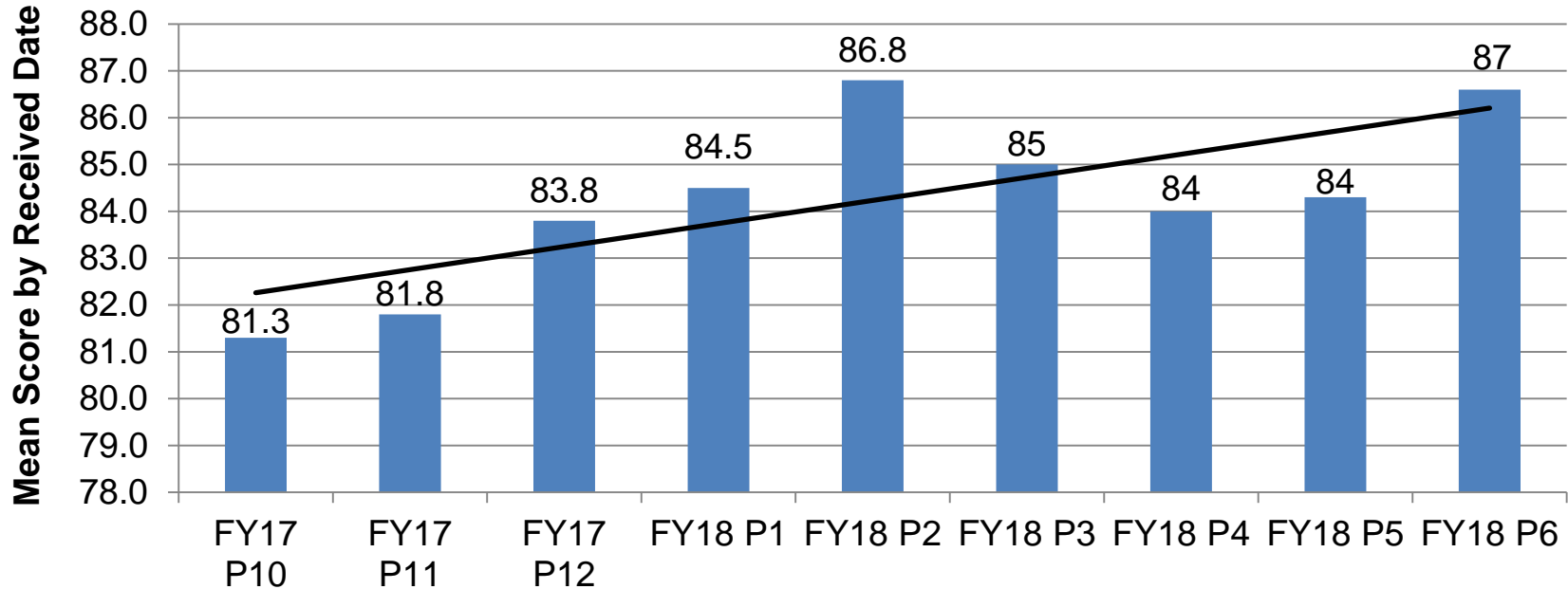
Admit Order to Bed Assigned 12mn-8am by Quarter



*Q3 = Two months of data



Patient Experience Scores Post Navigator Implementation by Period





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