



*EMERGENCY DEPARTMENT
BENCHMARKS AND BEST
PRACTICES*

**A Report of the Premier ED
Survey Findings**

January 2006

Definitions

- **Characteristics** – Those attributes that make you unique – generally those that are not easily changed.
- **Criteria** – characteristics by which you choose other organizations to compare outcomes.
- **Outcomes** – measures of quality, risk, cost, effectiveness and efficiencies.
- **Benchmarks** – A point to which you compare yourself.
- **Practices and “Best Practices”** – Processes employed; Best = those that consistently result in positive outcomes.
- **Better or “Balanced” Performers** – Those facilities that display a balance of cost, quality and risk and are models for performance improvement.

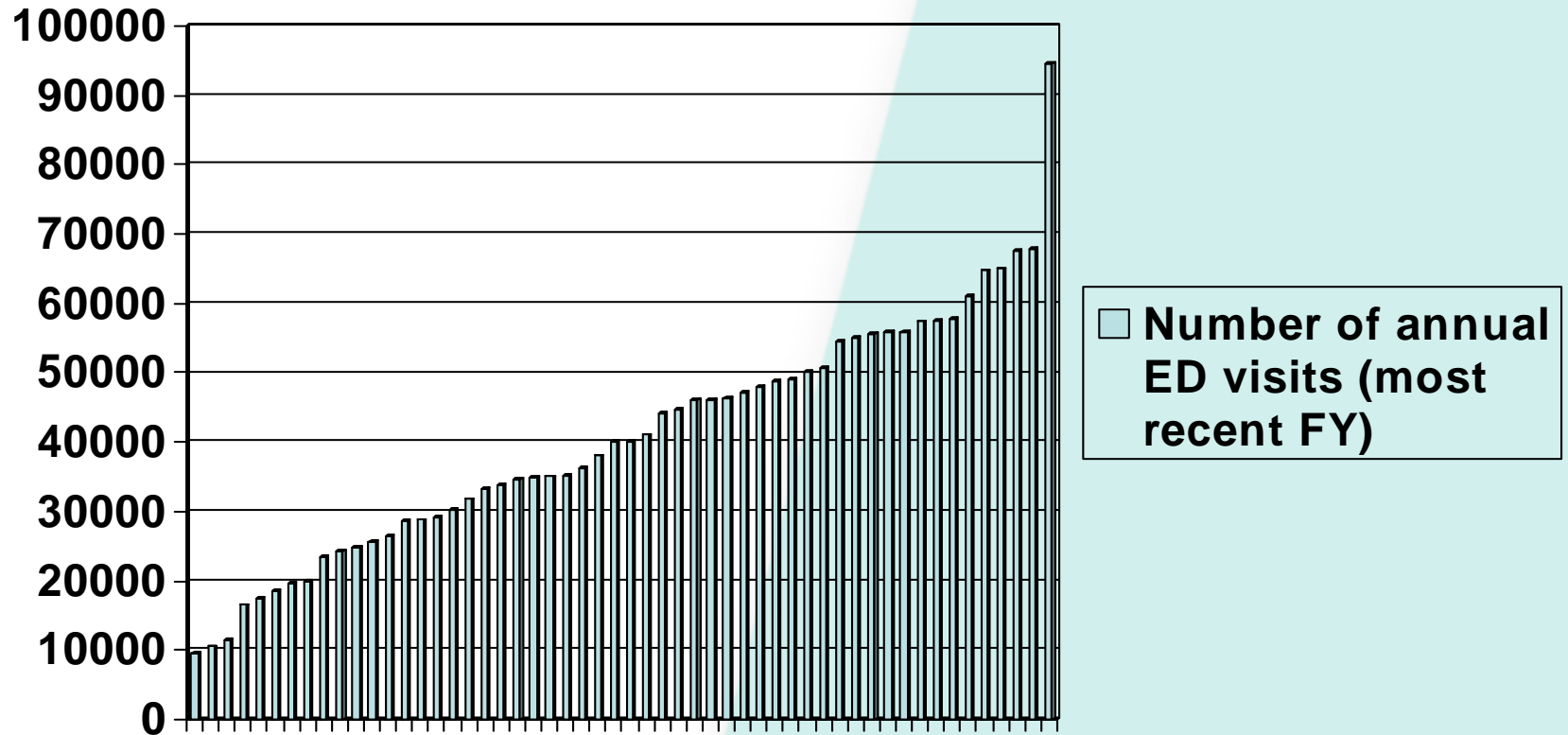
Characteristics

- Volume
- Age
- Acuity
- Admission Activity
- Facility Size
- Payor Mix
- Teaching Status

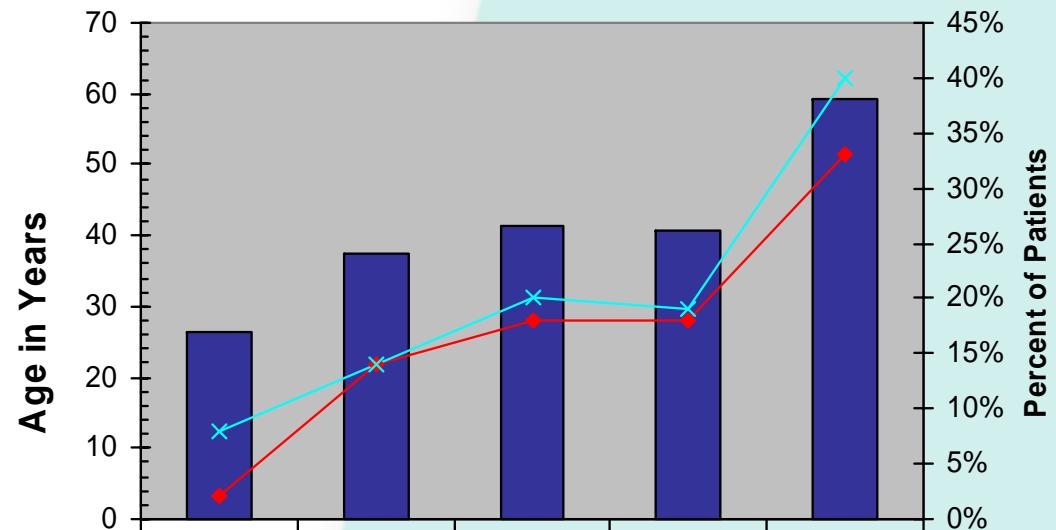
ED Database

- 61 hospitals ranging in volume from 9,543 to 95,504. Average volume was 40,942.
- 39% consider themselves “Urban,” 24% “Suburban” and 37% “Rural.”
- 25% of hospitals designated themselves as teaching, some “limited.”

Participant Annual Volume

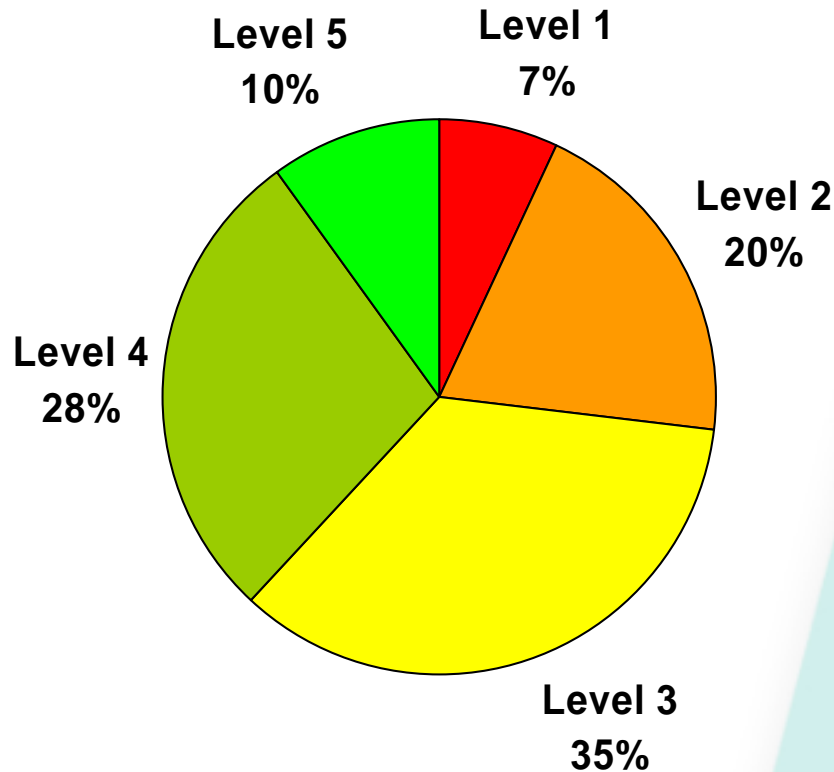


Average Age

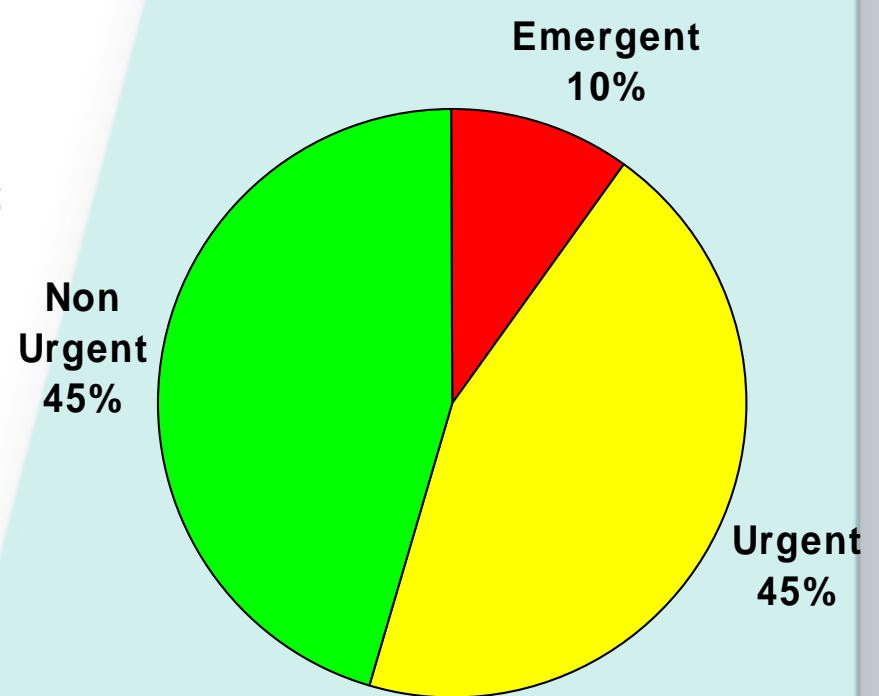


	Min	Quartile	Average	Median	Max
Average age of patient population	27	38	41	41	59
Percent of patients under age of 16	2%	14%	18%	18%	33%
Percent of patients over age of 65	8%	14%	20%	19%	40%

Average Acuity

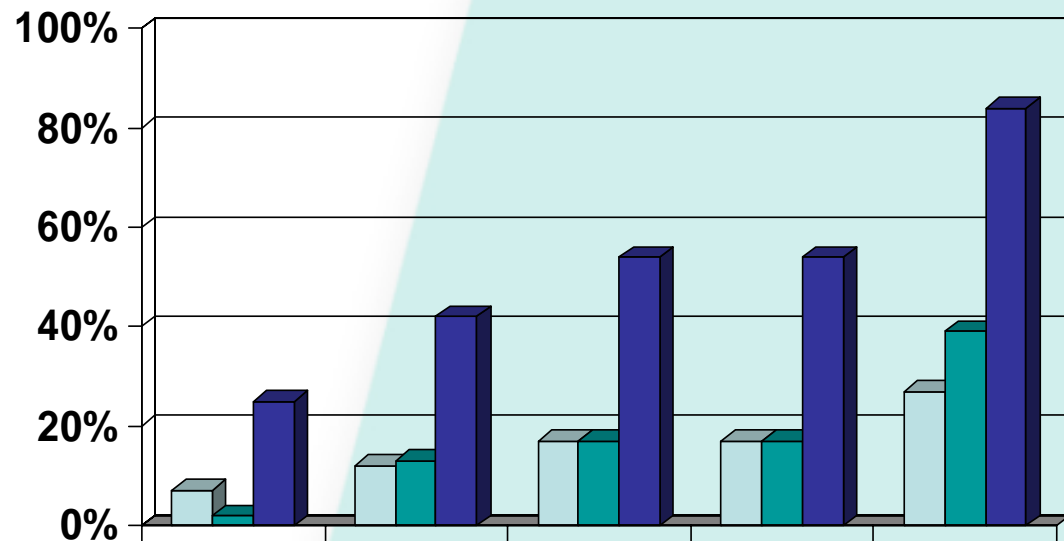


54% Use a 5 Level Acuity System



31% Use a 3 Level Acuity System

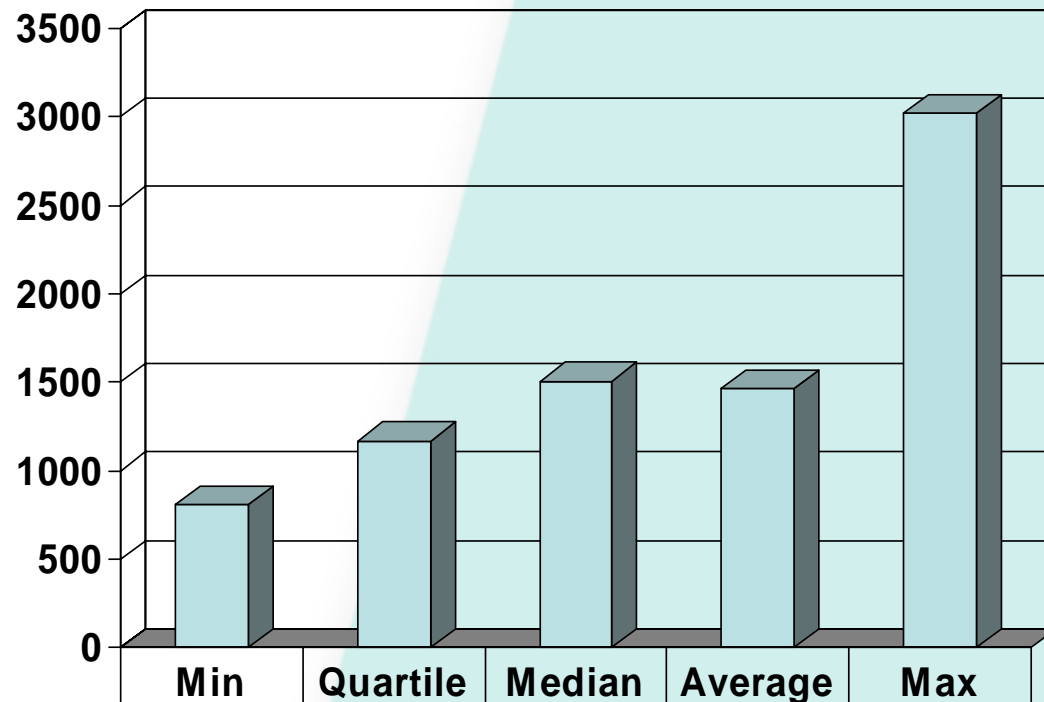
Admission Volume



	Min	Quartile	Average	Median	Max
■ Percent of patients arriving by ambulance	7%	12%	17%	17%	27%
■ Percent of total ED visits that are admitted	2%	13%	17%	17%	39%
■ Percent of inpatient admissions that originate in the ED	25%	42%	54%	54%	84%

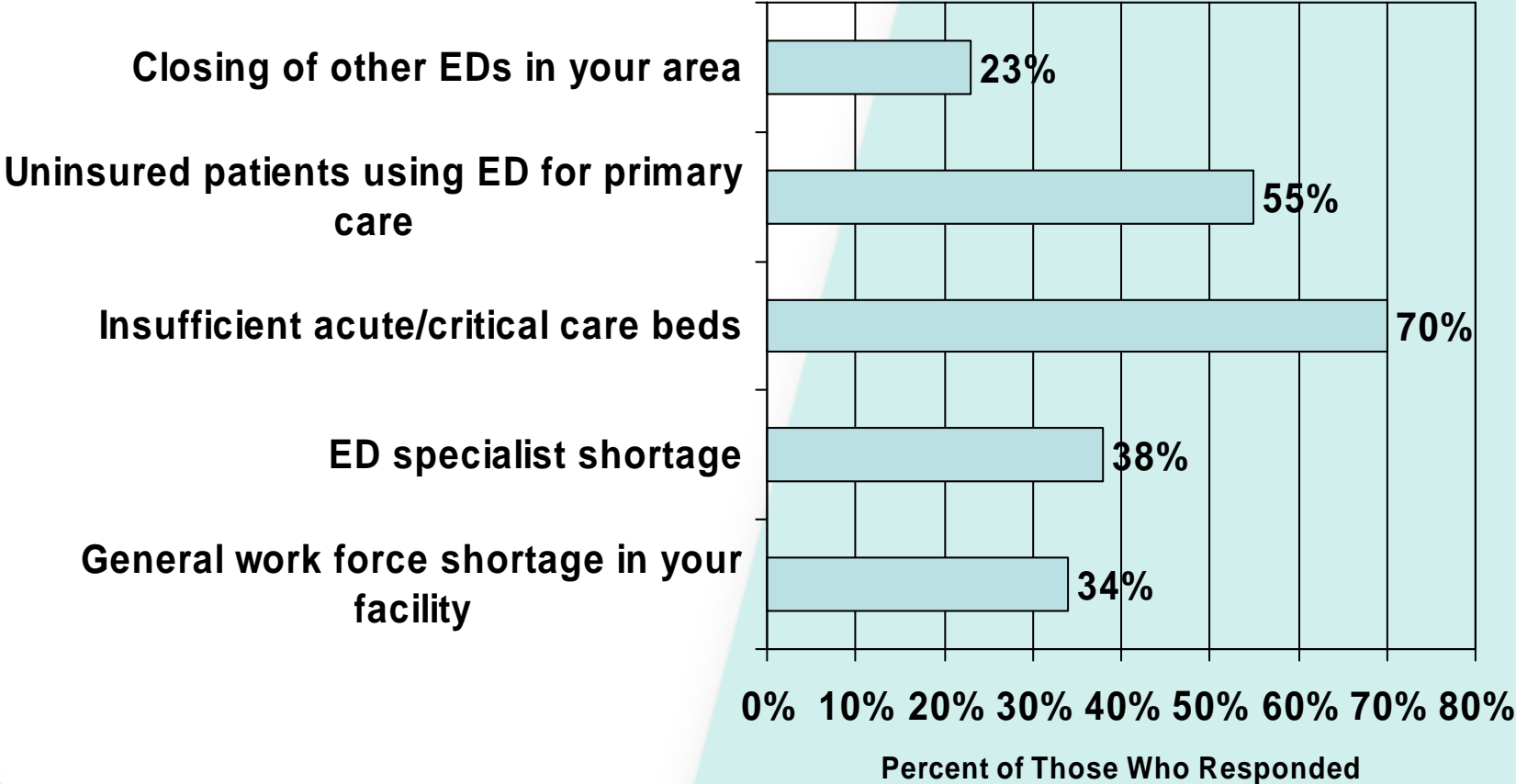
ED Visits per ED Bed

Number of ED Visits per ED Bed



ED Visits per Bed	Min	Quartile	Median	Average	Max
ED Visits per Bed	808	1168	1505	1462	3021

ED Issues

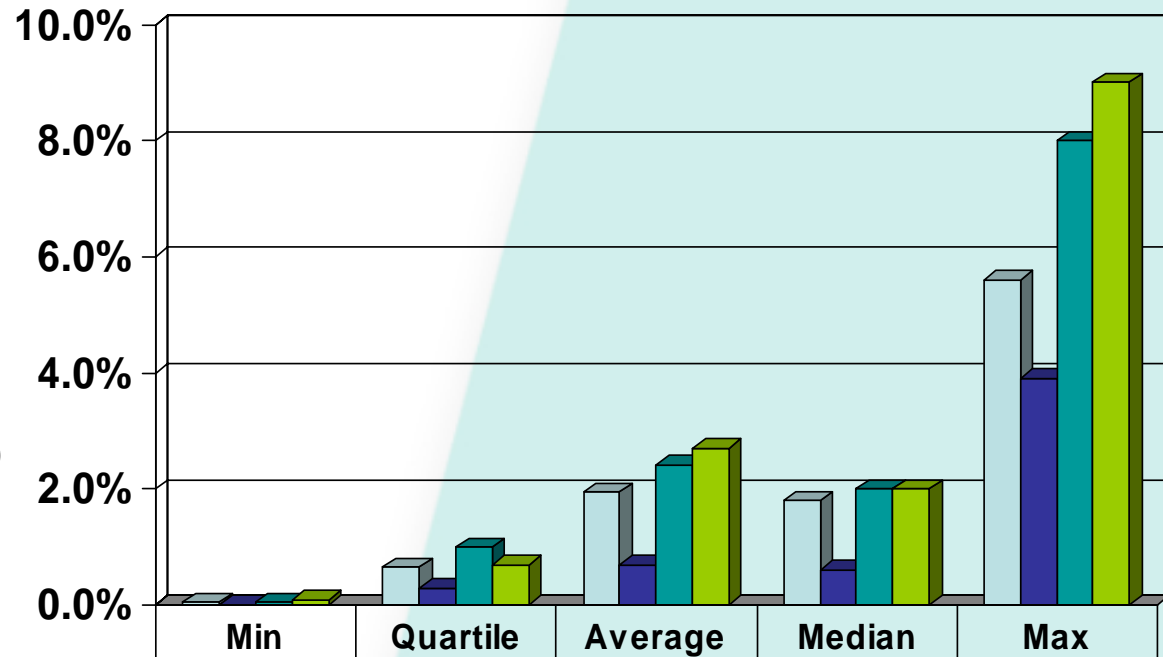


Outcomes

- Length of Stay
- Sub Process Interval Times
- Nursing Worked Hours/Visit
- Left without Being Seen
- Returns to ED
- Patient Satisfaction

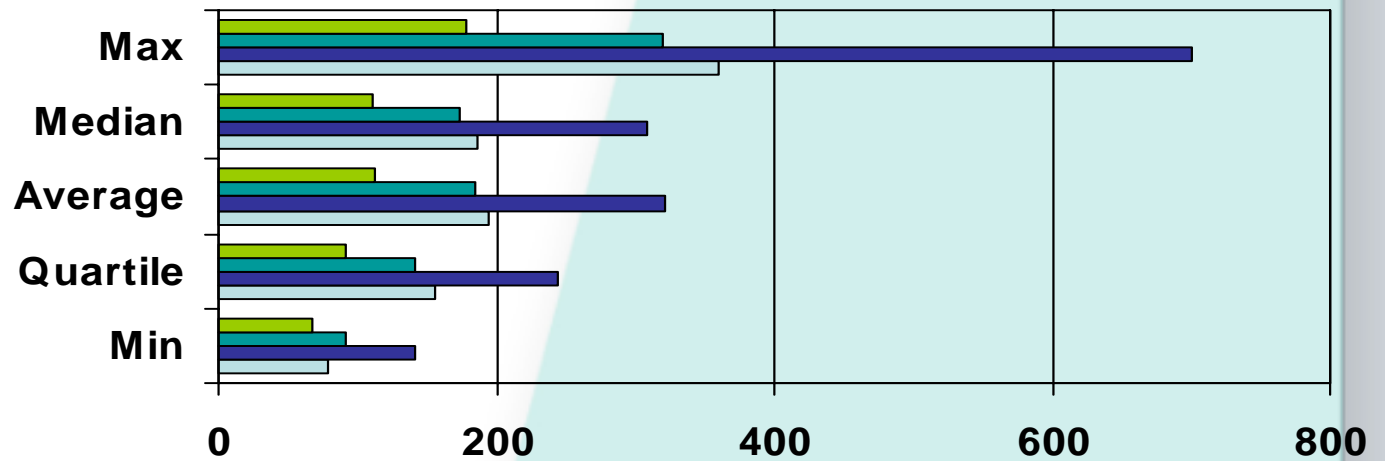
LWOBS, AMA and Returned Visits

Percent of ED Patients



	Min	Quartile	Average	Median	Max
□ LWOBS	0.1%	0.7%	1.9%	1.8%	5.6%
■ AMA	0.0%	0.3%	0.7%	0.6%	3.9%
■ Percent of unexpected returns to ED within 48 hours	0.1%	1.0%	2.4%	2.0%	8.0%
■ Percent of unexpected returns to ED within 72 hours	0.1%	0.7%	2.7%	2.0%	9.0%

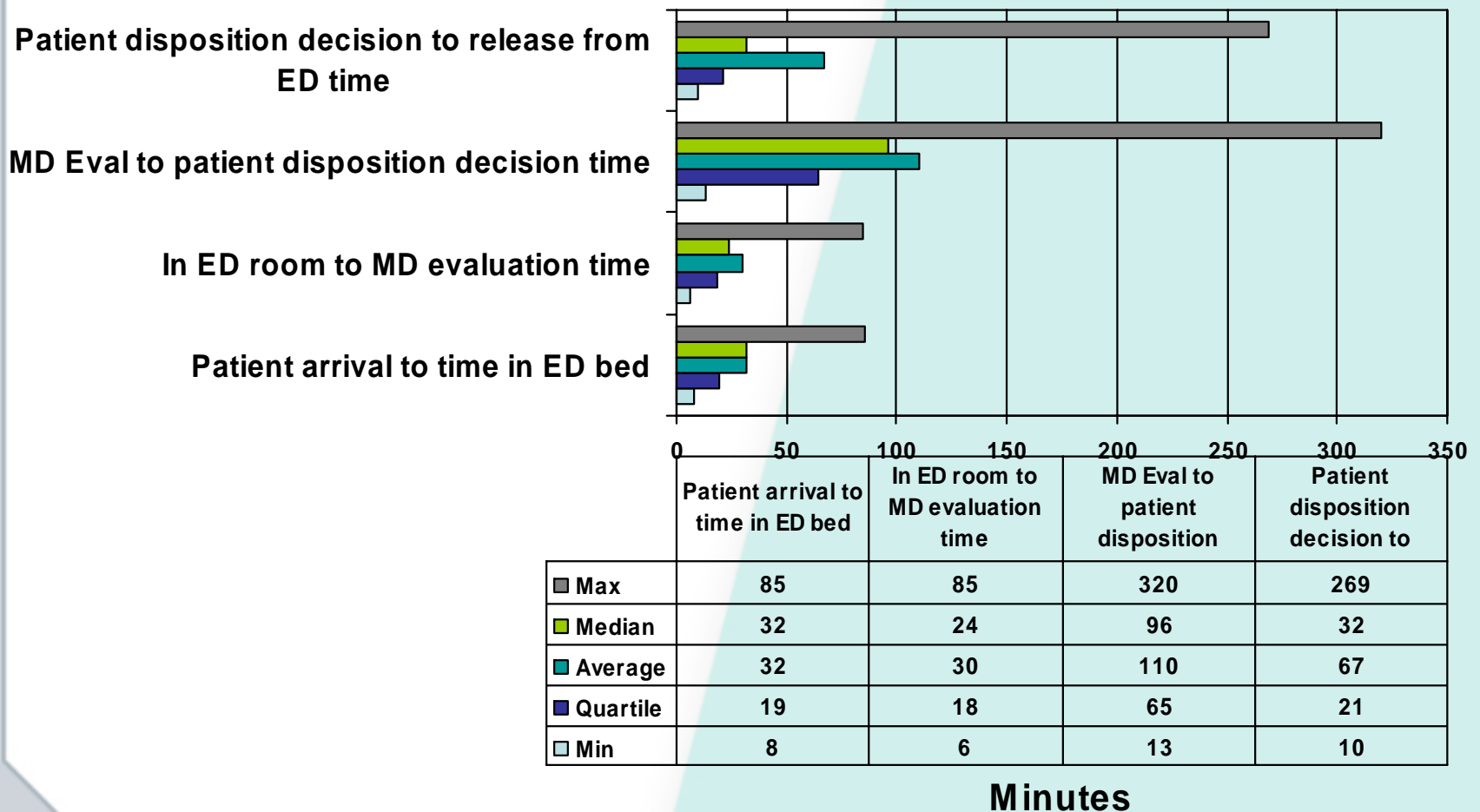
ED Length of Stay



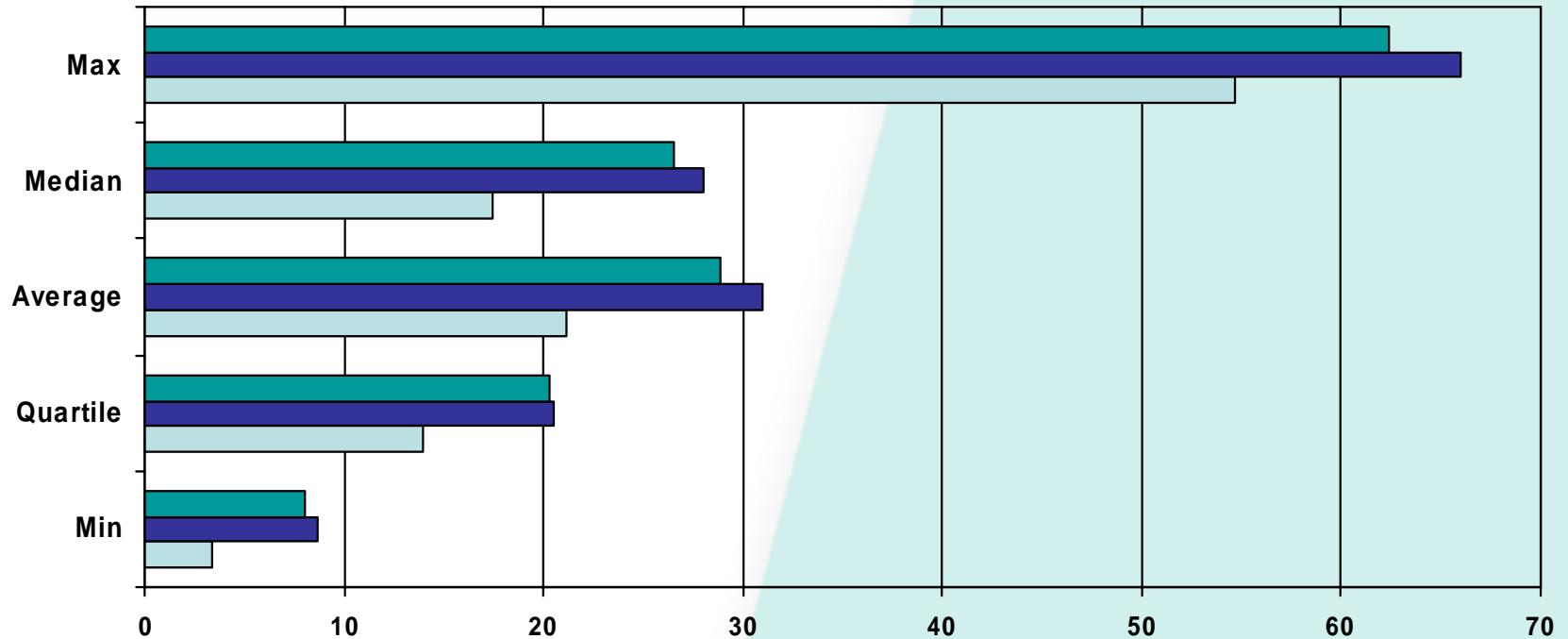
	Min	Quartile	Average	Median	Max
■ Fast Track	67	91	113	110	178
■ Discharged	92	142	185	174	319
■ Admitted	141	244	321	309	700
■ Overall average length of stay - arrival to release	78	156	195	187	360

Minutes

ED Sub-Processes



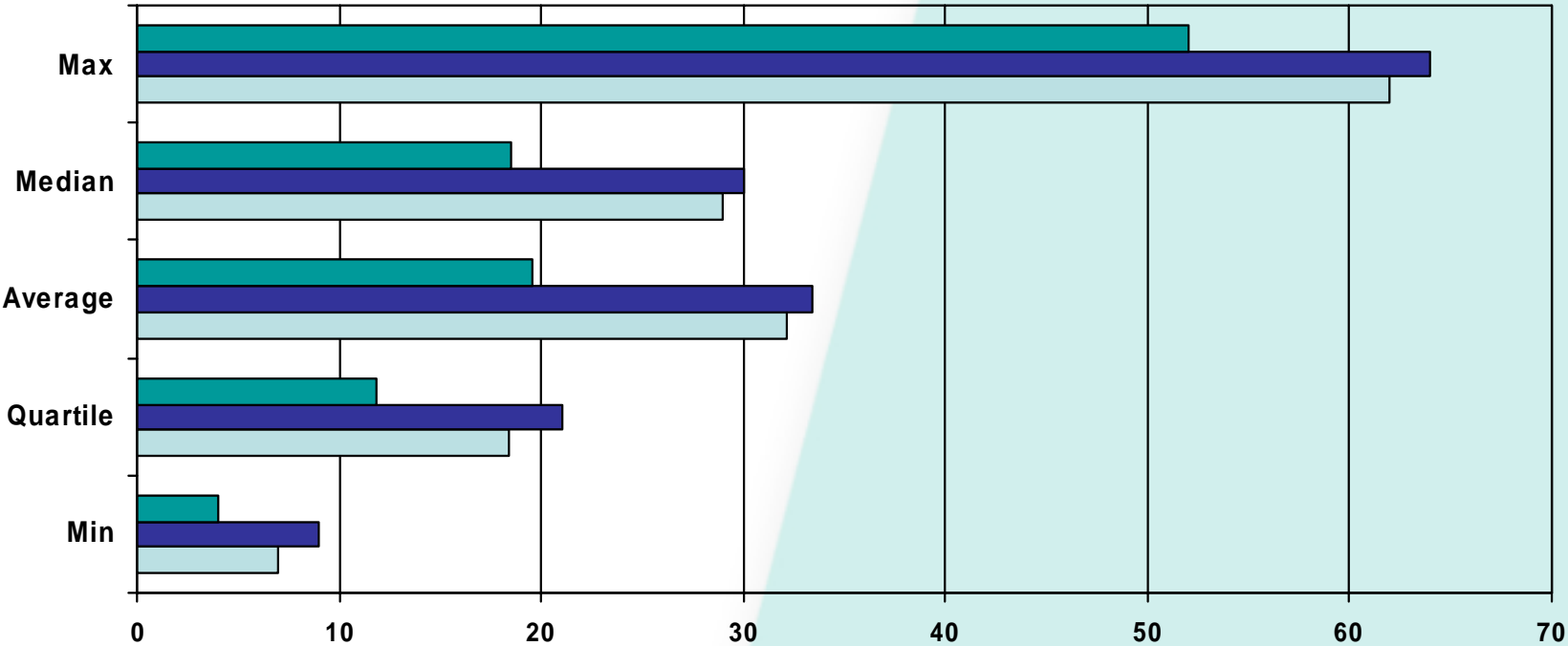
Patient arrival to time in ED Room



	Min	Quartile	Average	Median	Max
Fast Track	8	20	29	27	62
Discharged	9	21	31	28	66
Admitted	3	14	21	17	55

Minutes

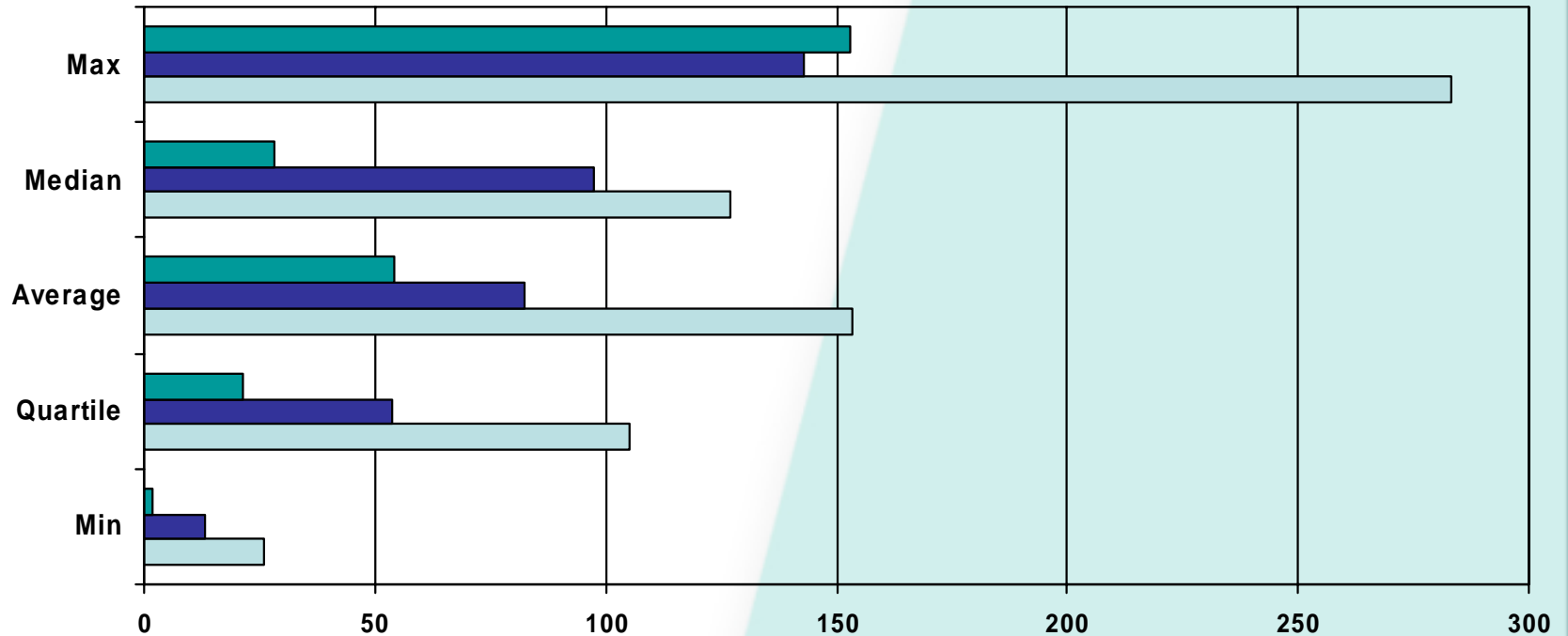
In ED room to MD evaluation time



	Min	Quartile	Average	Median	Max
Fast Track	4	12	20	19	52
Discharged	9	21	33	30	64
Admitted	7	18	32	29	62

Minutes

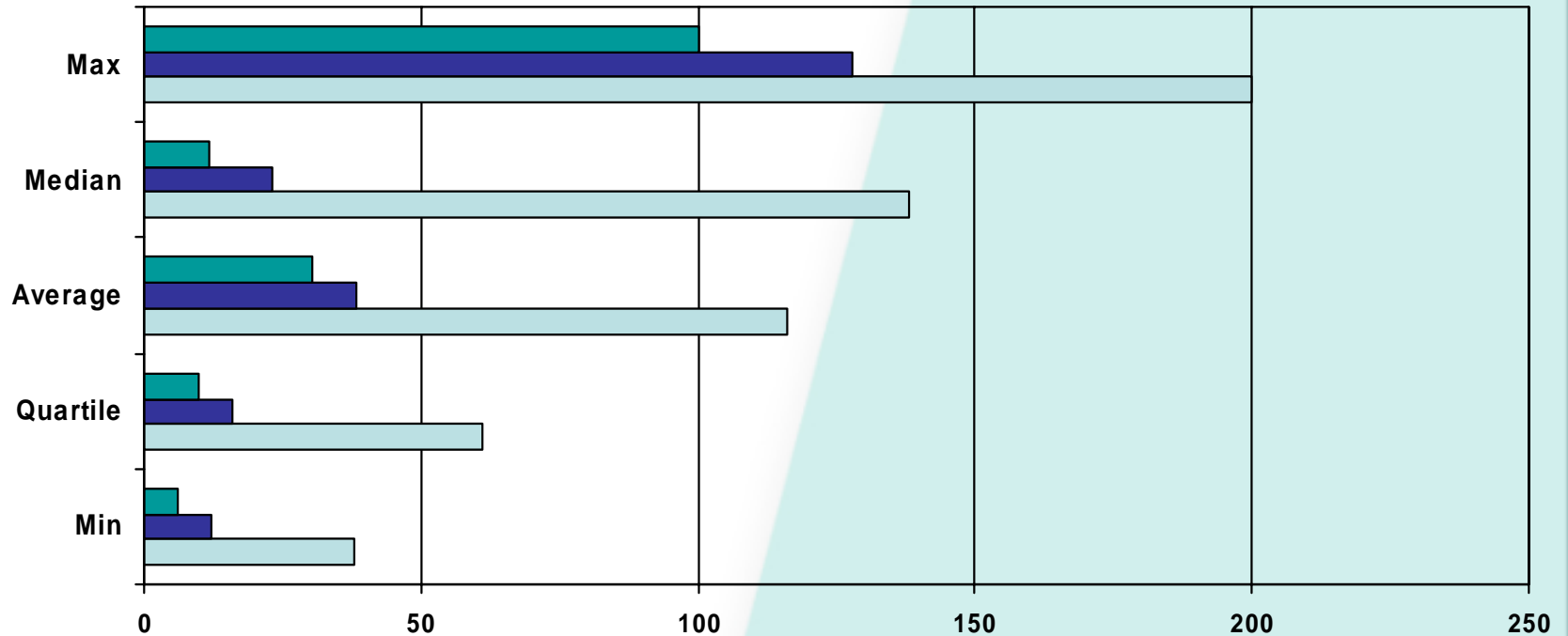
MD Visit to Patient Disposition Decision Time



	Min	Quartile	Average	Median	Max
Fast Track	2	21	54	28	153
Discharged	13	54	82	98	143
Admitted	26	105	153	127	283

Minutes

Patient disposition decision to release from ED time



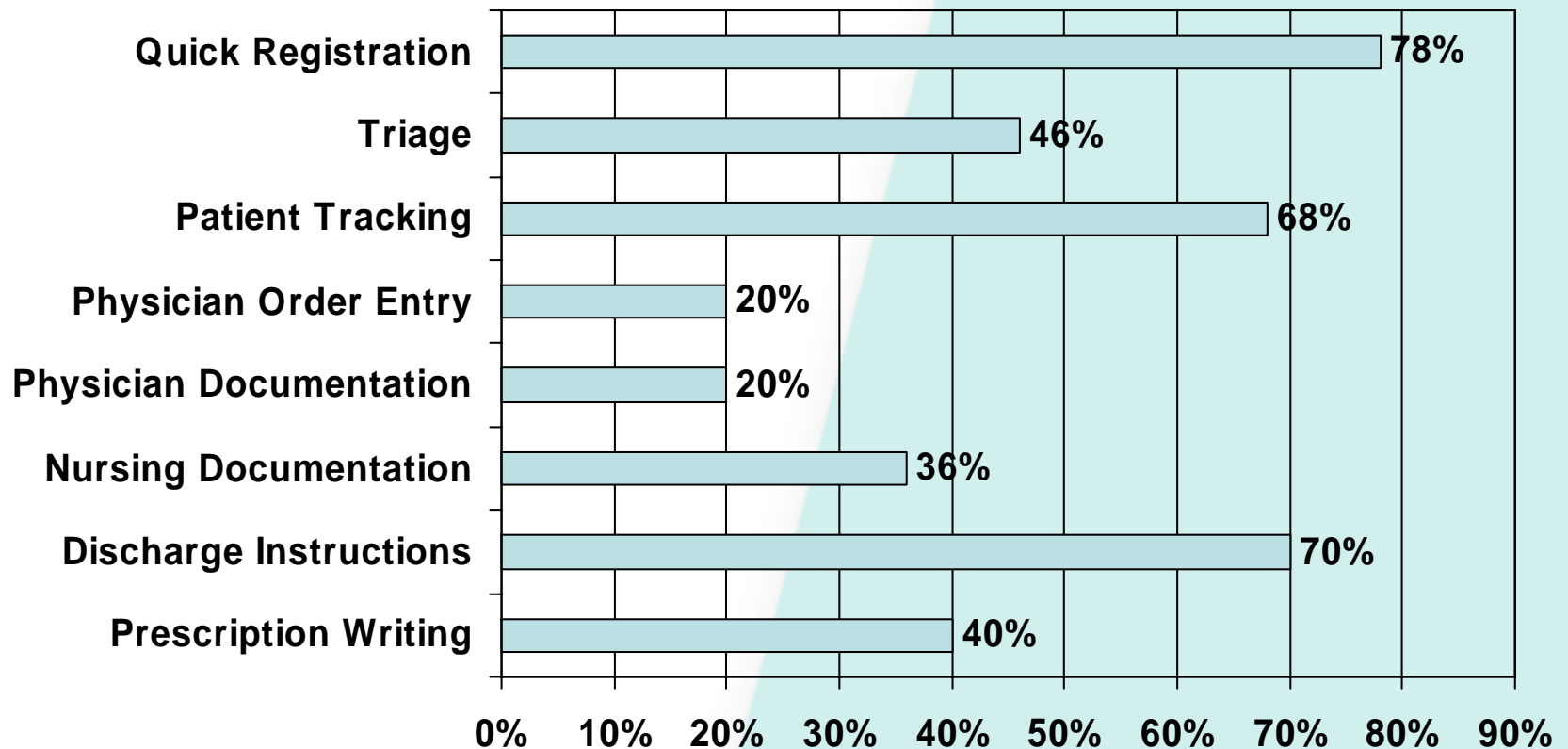
	Min	Quartile	Average	Median	Max
Fast Track	6	10	30	12	100
Discharged	12	16	38	23	128
Admitted	38	61	116	138	200

Minutes

Practices Affecting Patient Flow

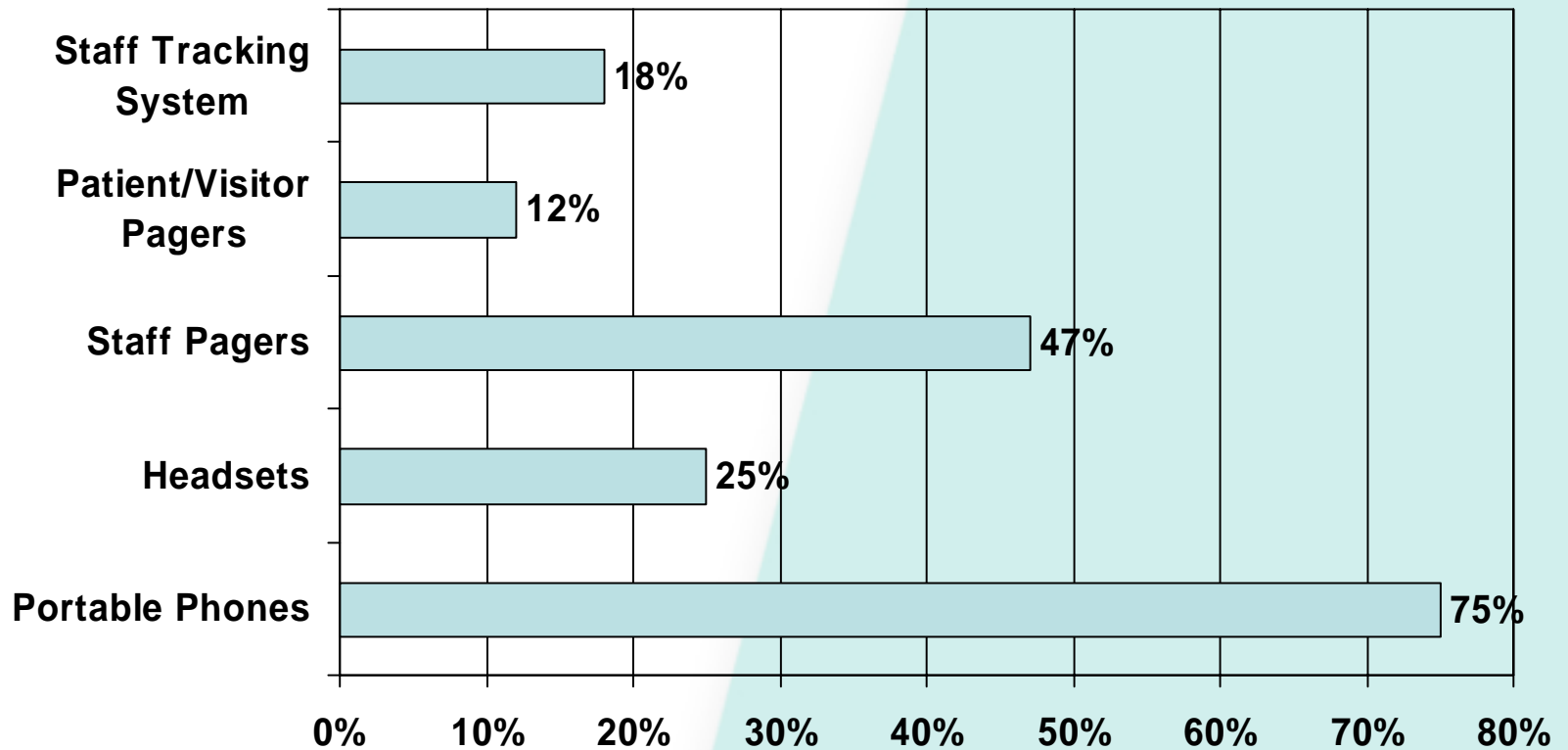
- Quick Account Number Generation and Bedside Registration
- Technology and Communication Systems
- Point of care Testing
- Roles and Responsibilities
- Staffing
- Physician/NP/PA Availability
- Ancillary Support

Technology in the ED



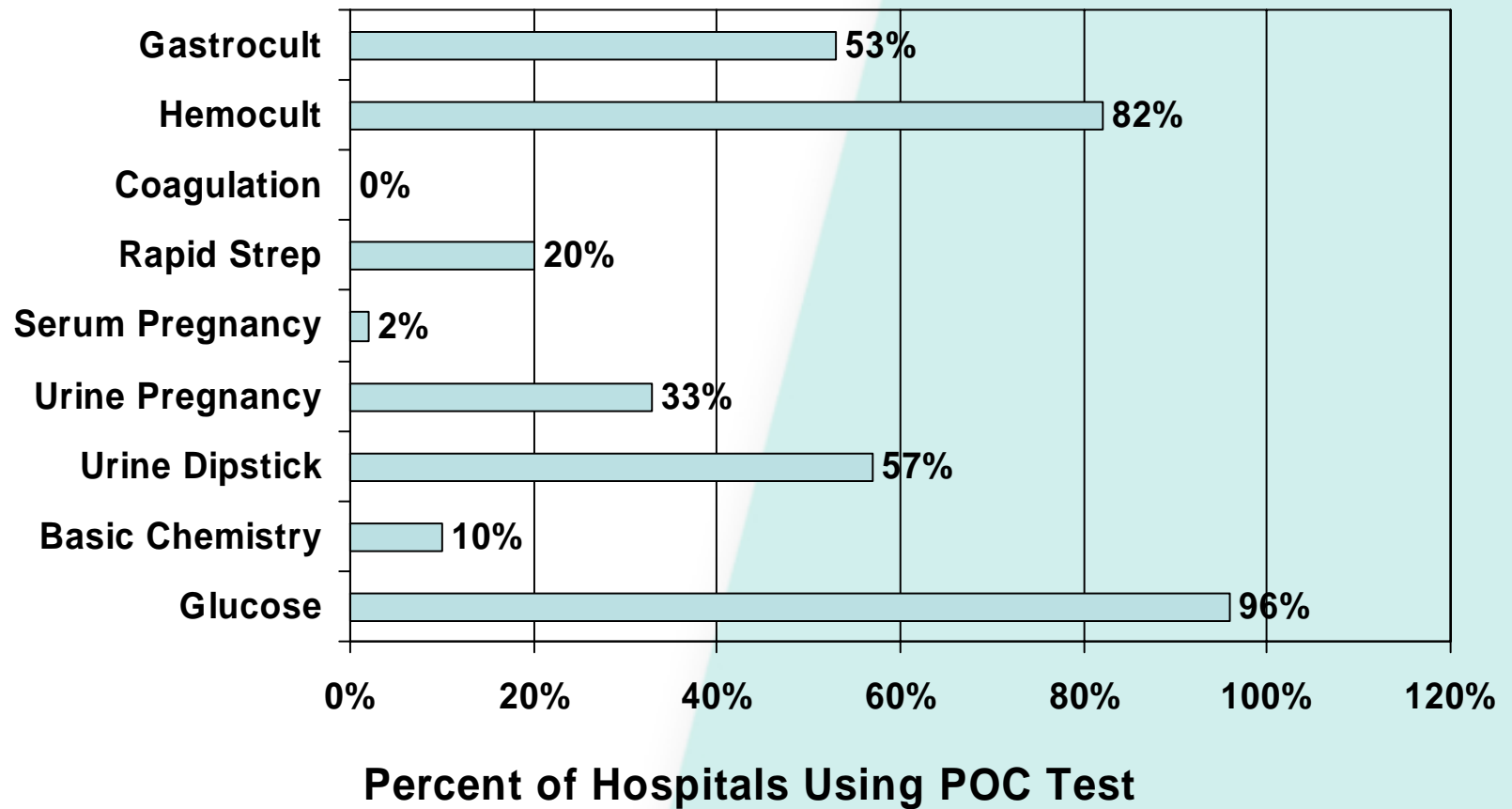
Percent of Hospitals Using ED Technology

Communication Systems in the ED



Percent of Hospitals Using Communication Tool

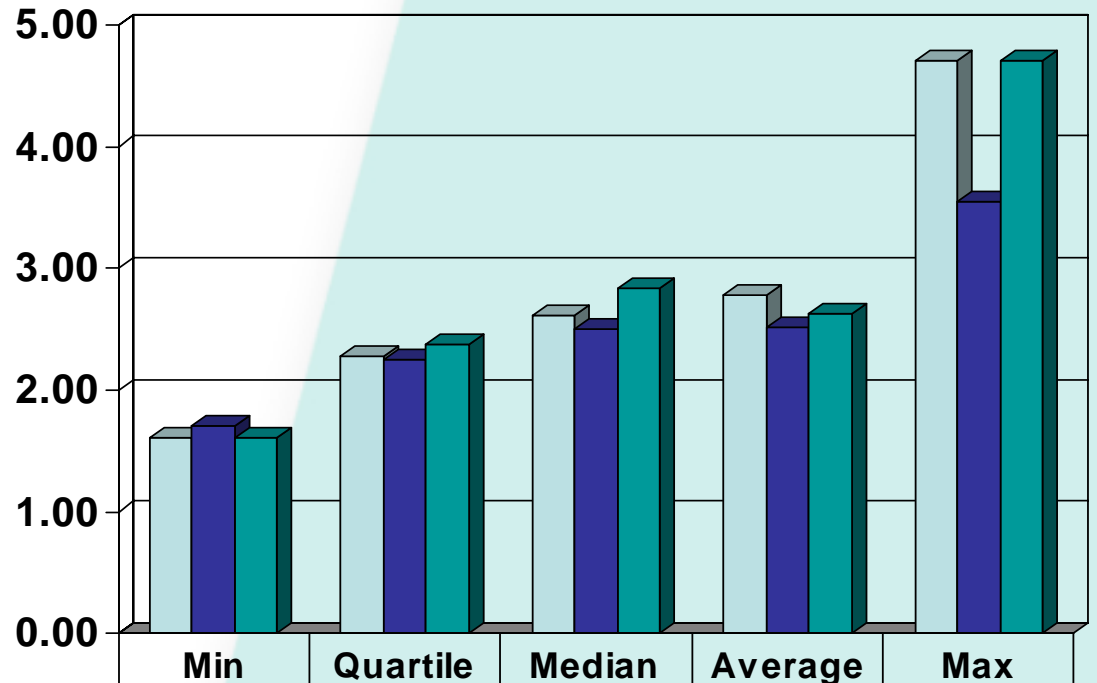
Point of Care Testing in ED



ED Worked Hours per Visit

Annual WHPPV – generally includes ED nursing staff, management, ED techs or nursing assistants, and clerical staff.

Worked Hours Per Visit

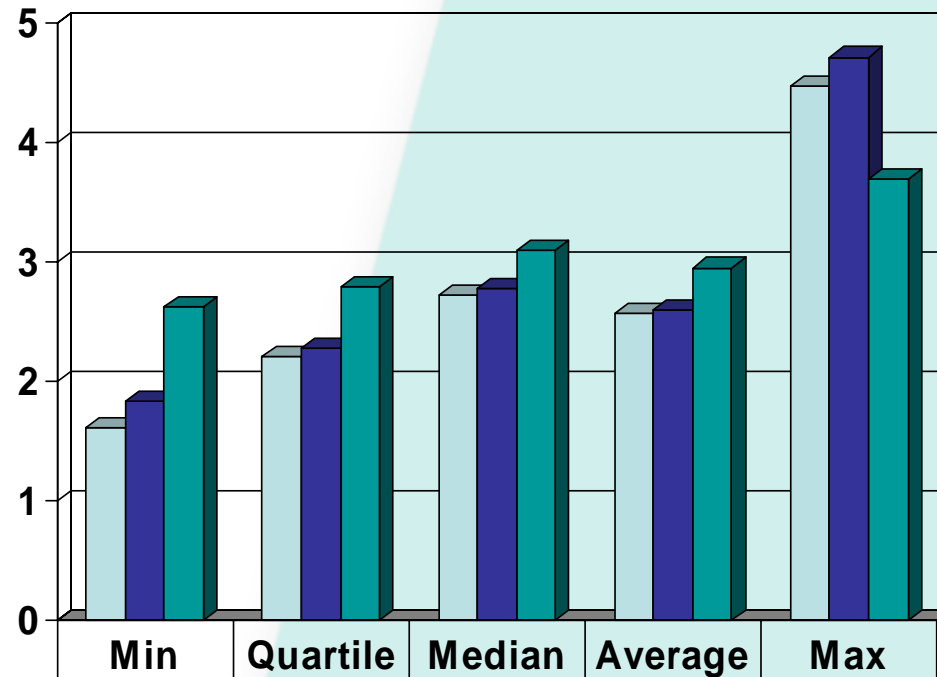


	Min	Quartile	Median	Average	Max
Worked Hours per Visit	1.61	2.28	2.61	2.78	4.71
Teaching	1.7	2.25	2.5	2.51	3.54
Non-Teaching	1.61	2.38	2.84	2.62	4.71

ED Worked Hours per Visit by ED Volume

Annual WHPPV – generally includes ED nursing staff, management, ED techs or nursing assistants, and clerical staff.

Worked
Hours per
Visit

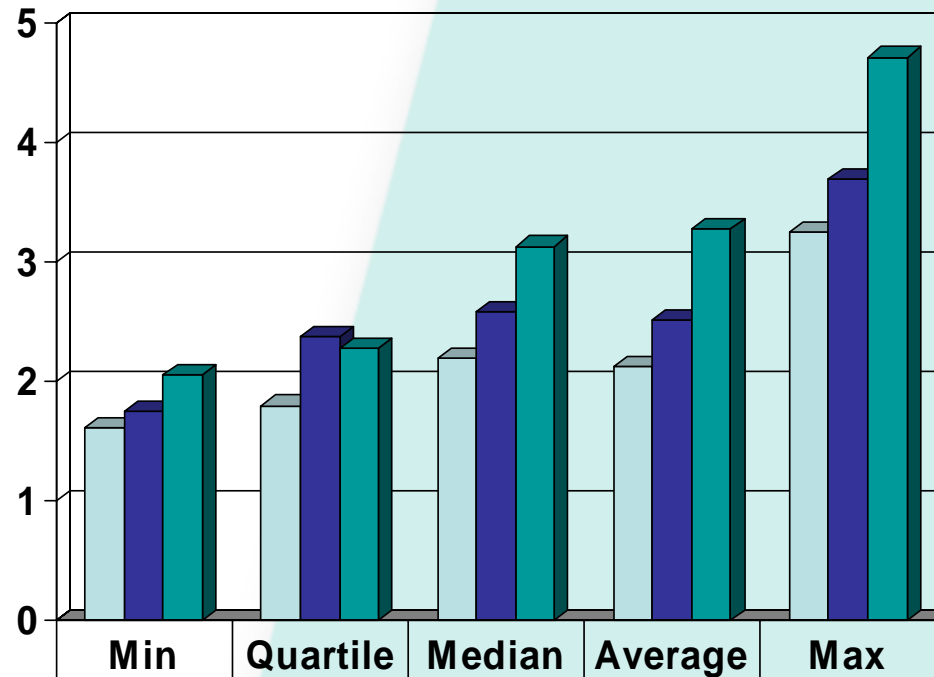


	Min	Quartile	Median	Average	Max
0-33K Visits	1.61	2.21	2.72	2.57	4.47
34K-66K Visits	1.84	2.28	2.78	2.6	4.71
67K-99K Visits	2.63	2.79	3.09	2.95	3.69

ED Worked Hours per Visit by Acuity

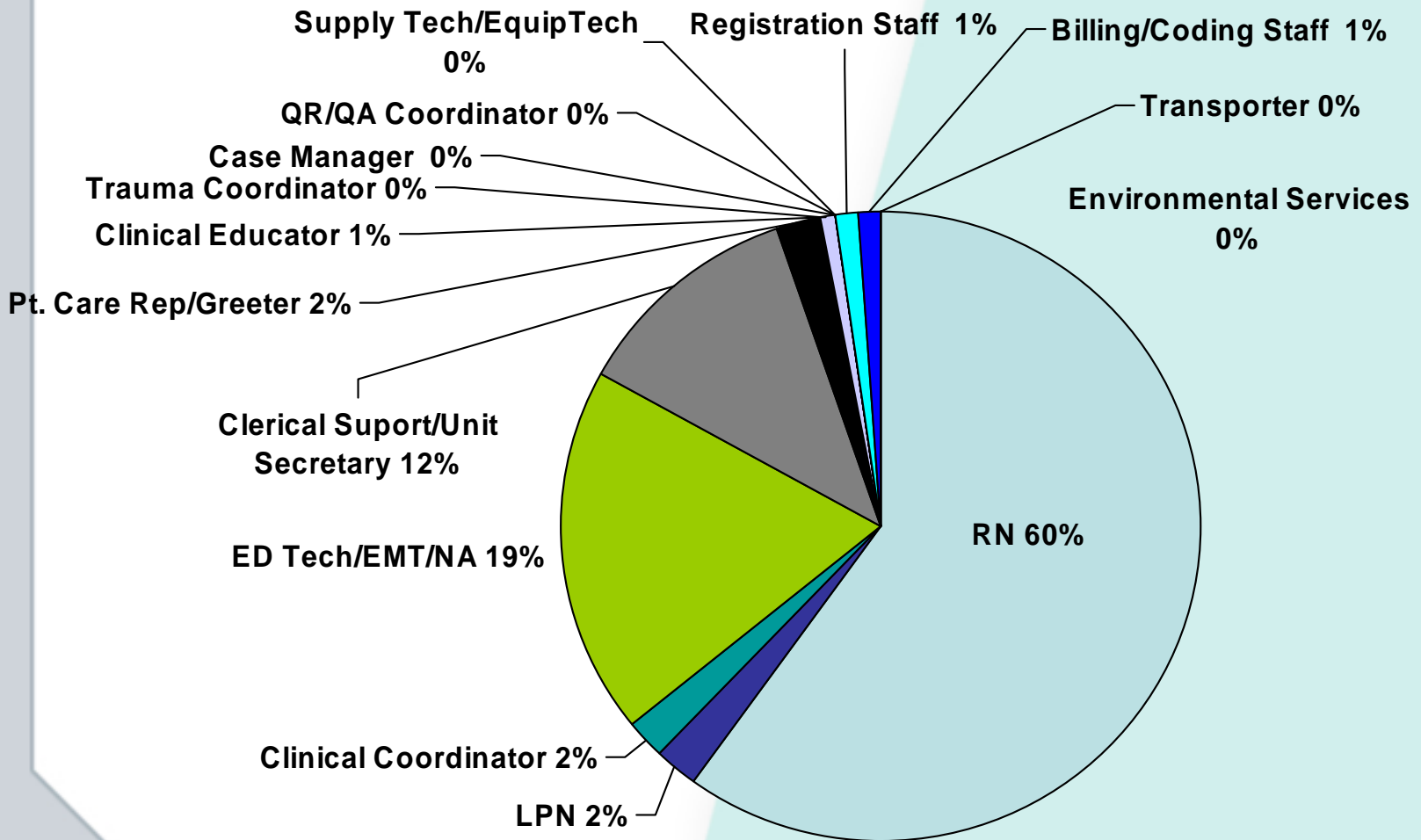
Acuity is determined by the Hospital's Overall % of ED Patients Admitted

Worked Hours per Visit



	Min	Quartile	Median	Average	Max
Admit 0-10%	1.61	1.8	2.2	2.12	3.25
Admit 11%-20%	1.75	2.38	2.58	2.51	3.69
Admit 21%+	2.06	2.28	3.13	3.27	4.71

ED Skill Mix in ED Budget



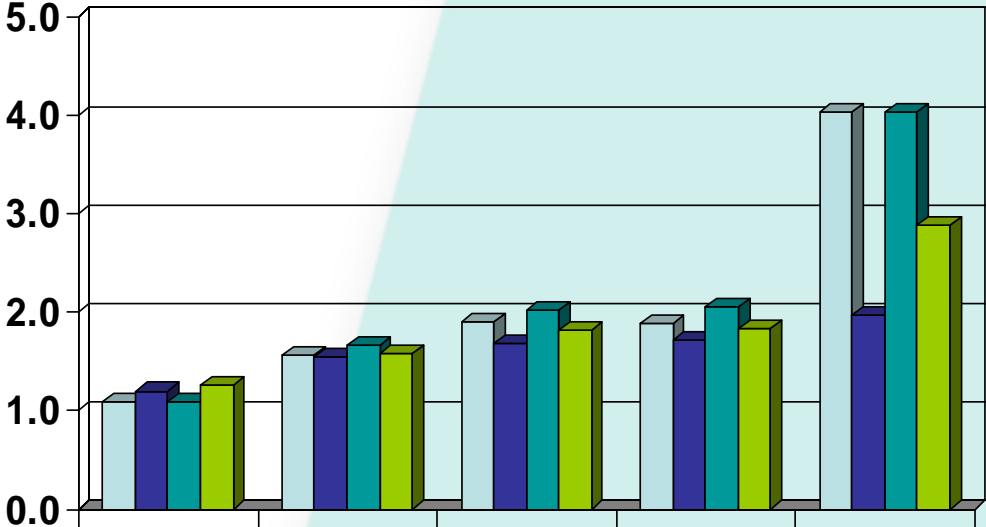
Nurse Staffing Practices

- 94% of respondents have a designated Charge Nurse; 90% staff the Charge Nurse 24/7. 46% take a patient load.
- 92% of respondents have a Triage Nurse, 69% are designated 24/7; 27% day and evening shift only.
- 45% of respondents have a Patient Care Representative; 25% staff all three shifts, 55% days and evening shifts, and 15% evening shift only.
- 39% of respondents have a Case Manager assigned to the ED. 4% in ED budget; 35% in Case management budget.

ED Patients Per Physician/ PA/NP Staffed Hour

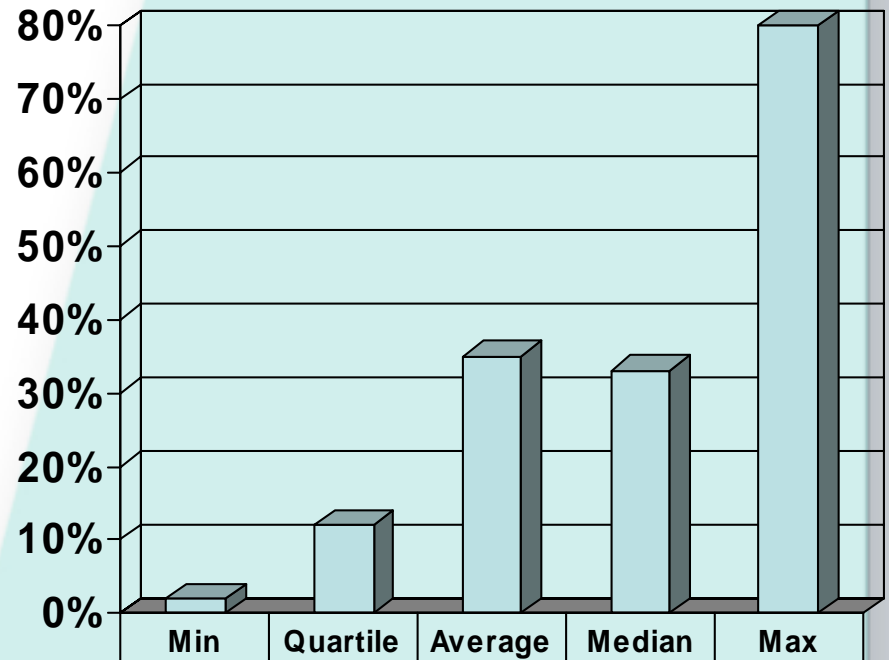
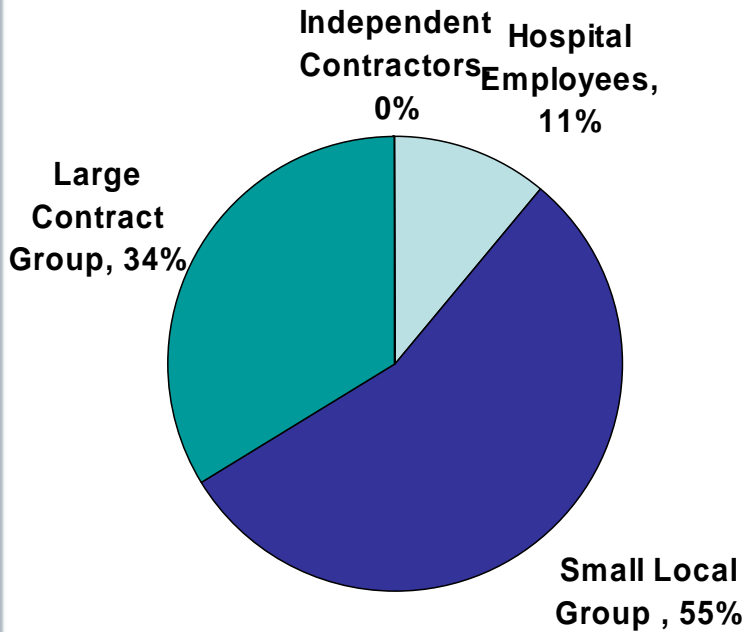
**Patients per
Physician/PA/NP
Staffed Hour**

*Does not include
Residents



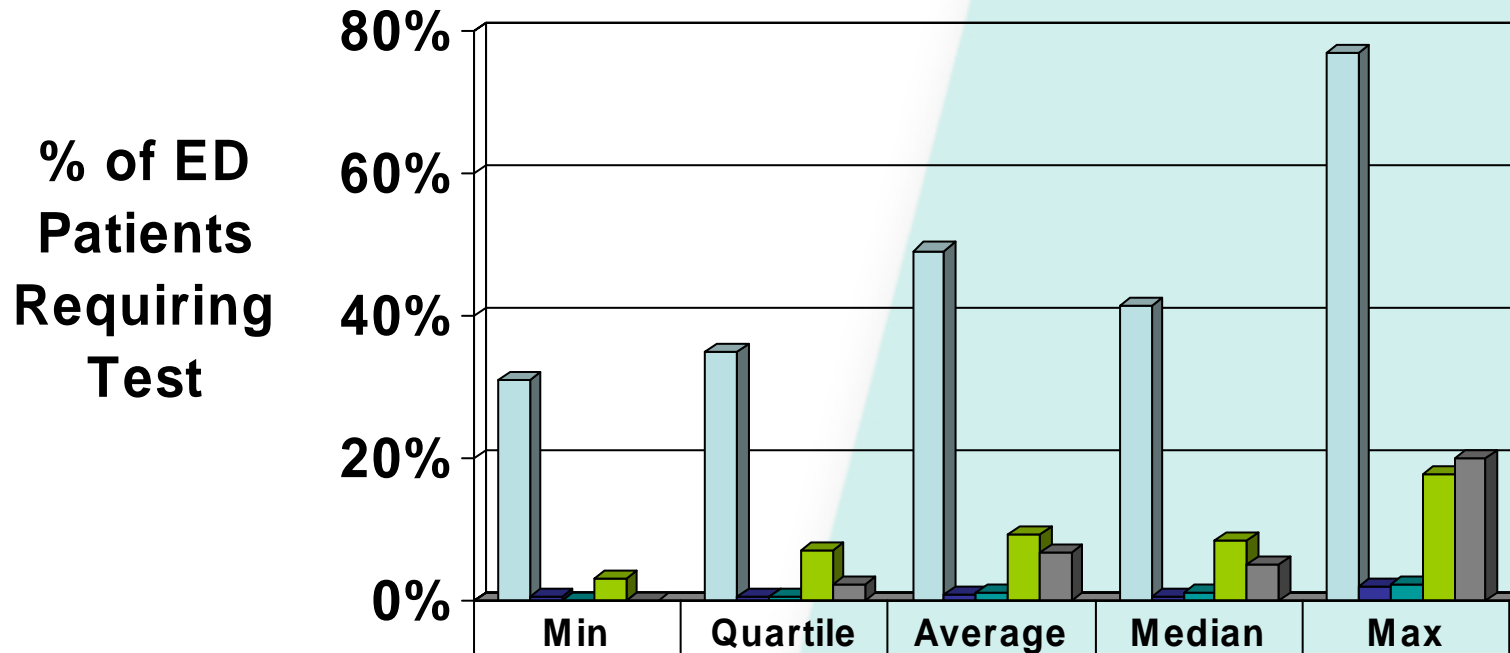
	Min	Quartile	Median	Average	Max
Patients per Physician Staffed Hour	1.1	1.6	1.9	1.9	4.0
Hospital Employed	1.2	1.5	1.7	1.7	2.0
Small Local Group	1.1	1.7	2.0	2.0	4.0
Large Contract Group	1.3	1.6	1.8	1.8	2.9

ED Physician Group Characteristics



□ Percent of time ED medical director spends being a medical director (vs. patient care)?

ED Radiology Utilization Statistics

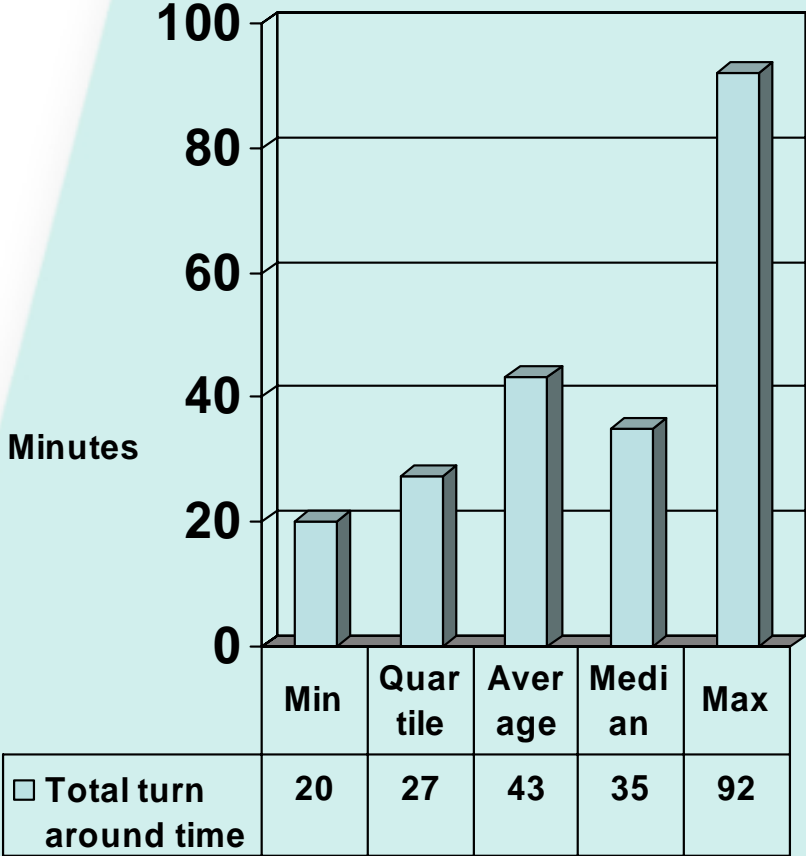
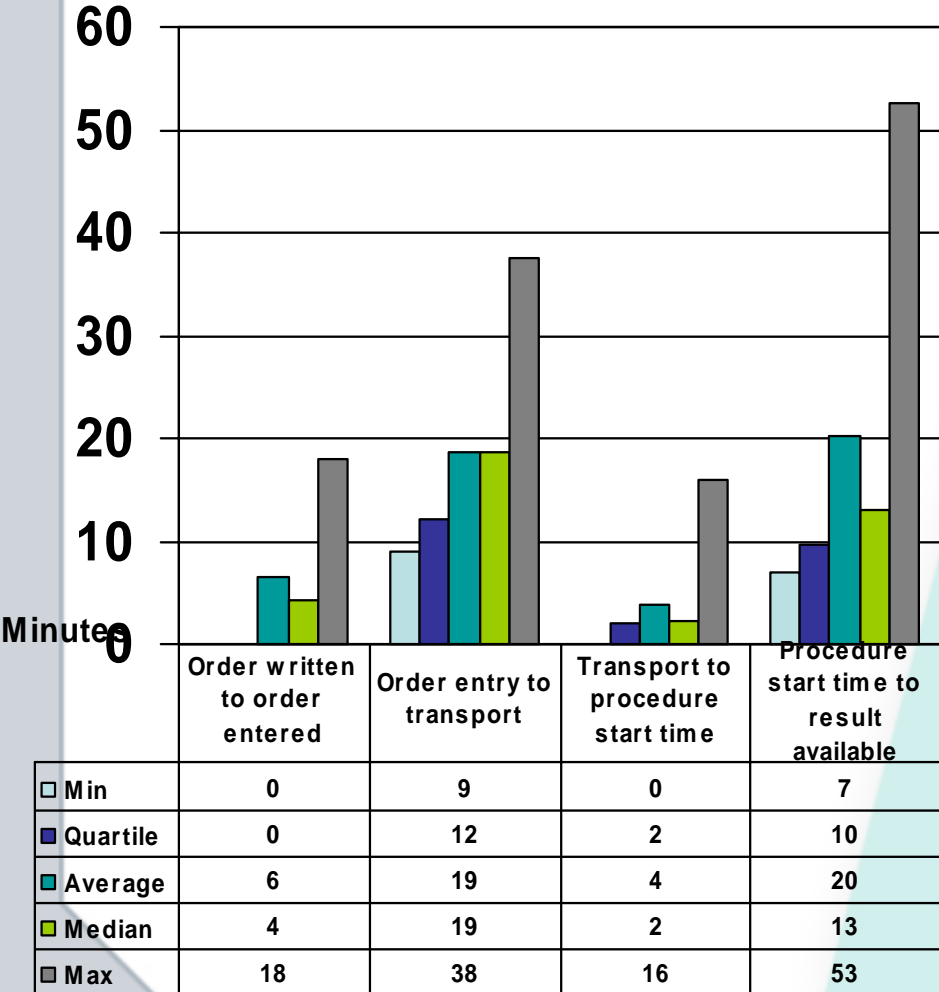


	Min	Quartile	Average	Median	Max
□ Routine X-Ray	31%	35%	49%	42%	77%
■ Ultrasound - DVT	0.5%	0.6%	0.9%	0.6%	2.0%
■ Ultrasound - GYN	0.1%	0.6%	1.0%	1.0%	2.2%
■ CT Scan	3.0%	7.0%	9.4%	8.4%	17.6%
■ CT Scan With Contrast	0.0%	2.2%	6.7%	5.0%	20.0%

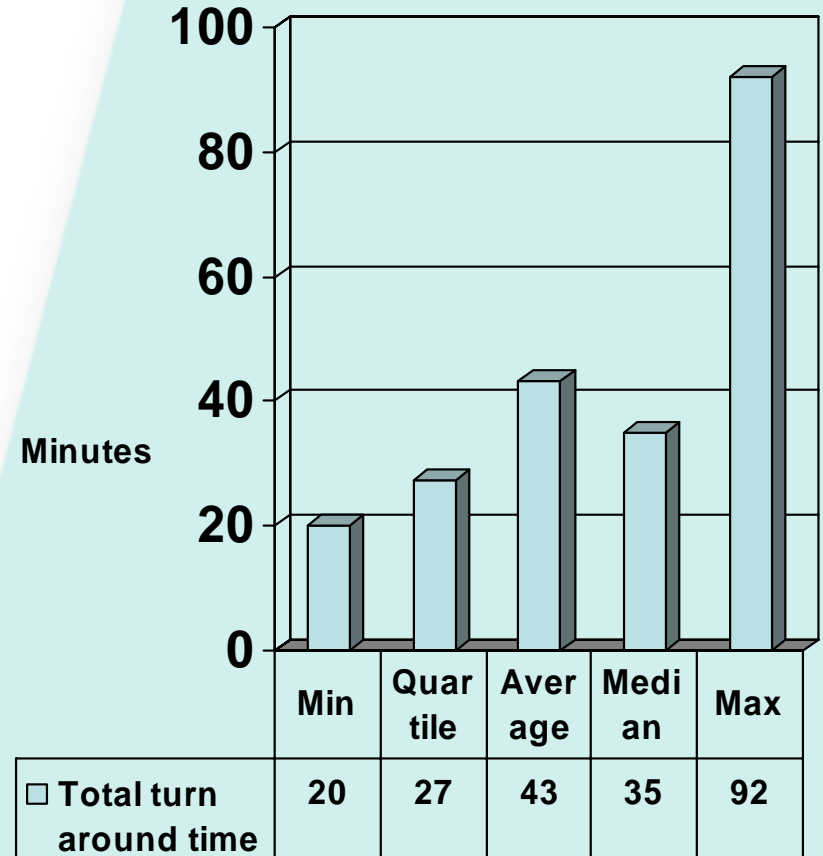
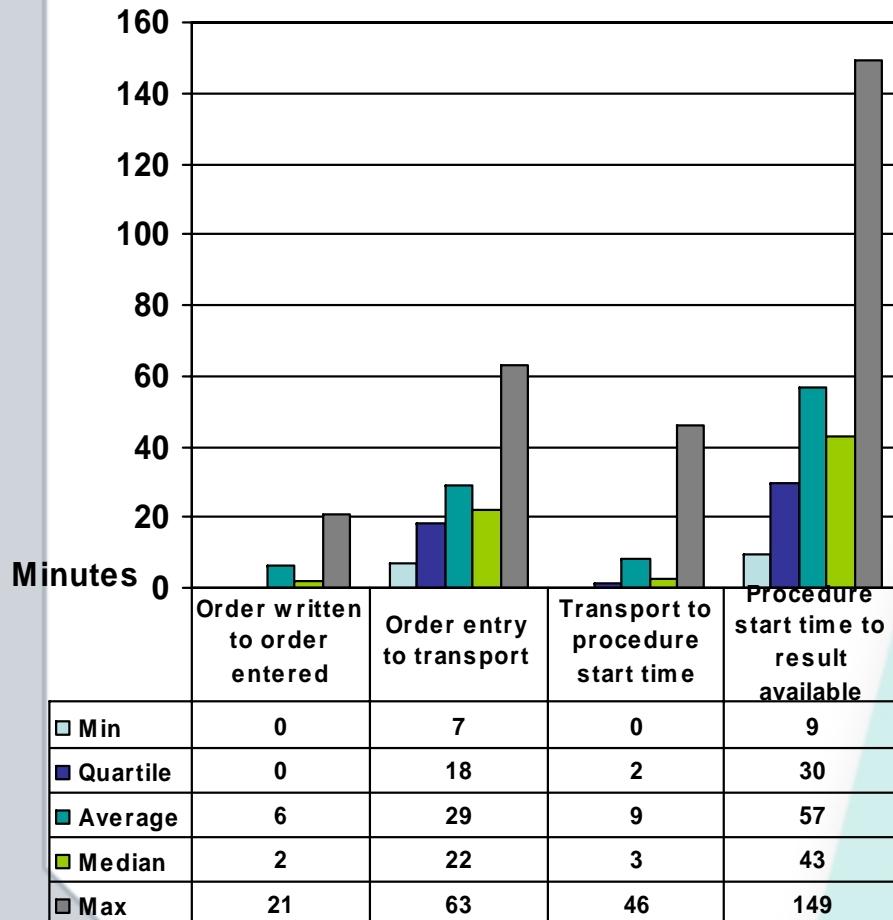
Radiology Practices

- 40% of respondents have a radiology room in the ED; 84% of time staffed 24/7.
- 65% are using a Night Hawk service; 82% of which are using primarily at night, 7% are using 24/7.
- 70% have access to PACS viewing.
- 93% of respondents treat patients based on ED MD preliminary interpretation; of those 70% do so 24/7; 23% do so only at night.
- 48% have portable Ultrasound equipment in the ED.
- 11% have a CT scanner in the ED.

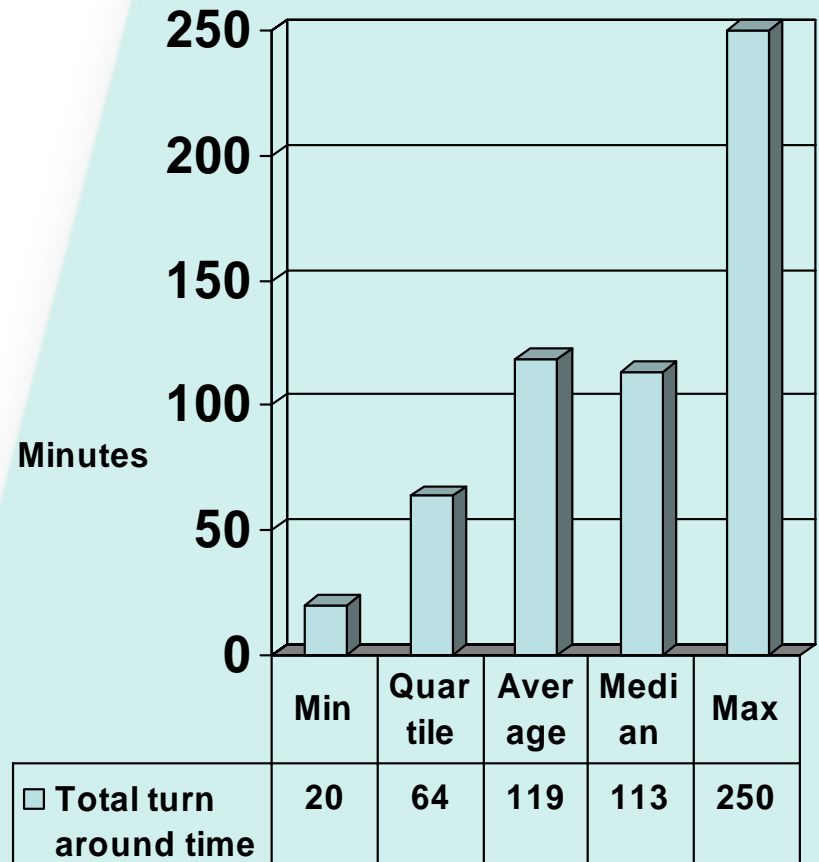
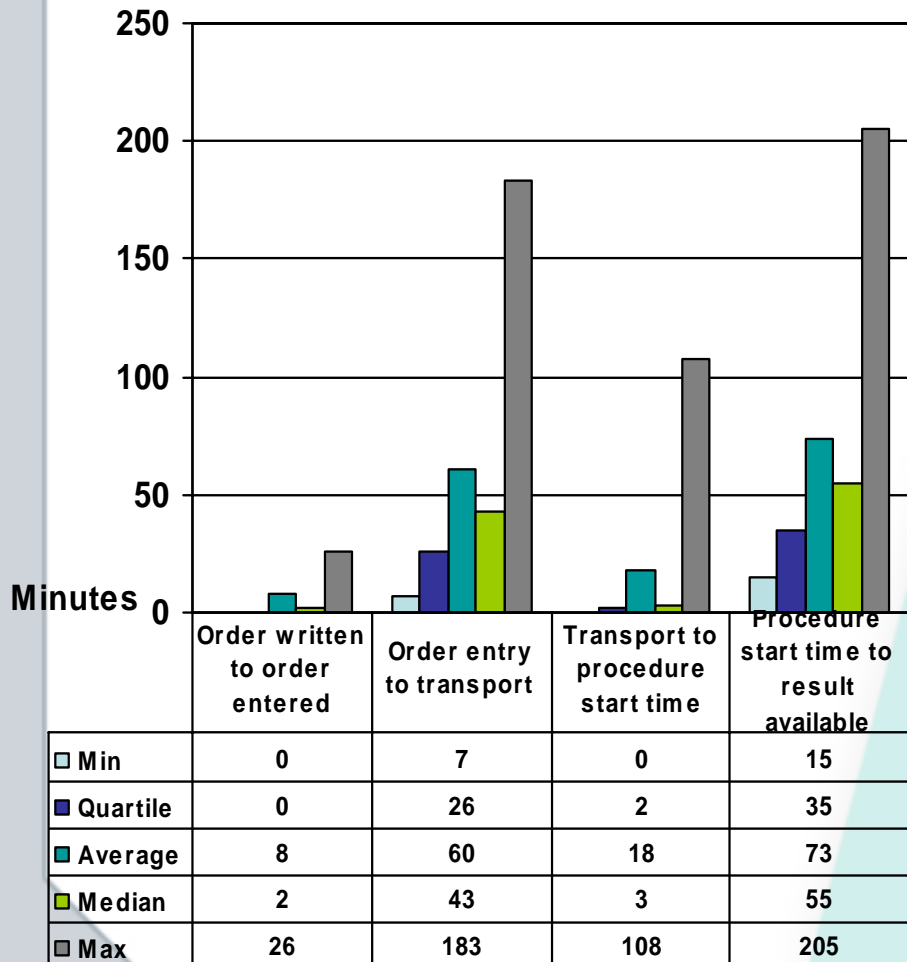
Radiology Turnaround Time



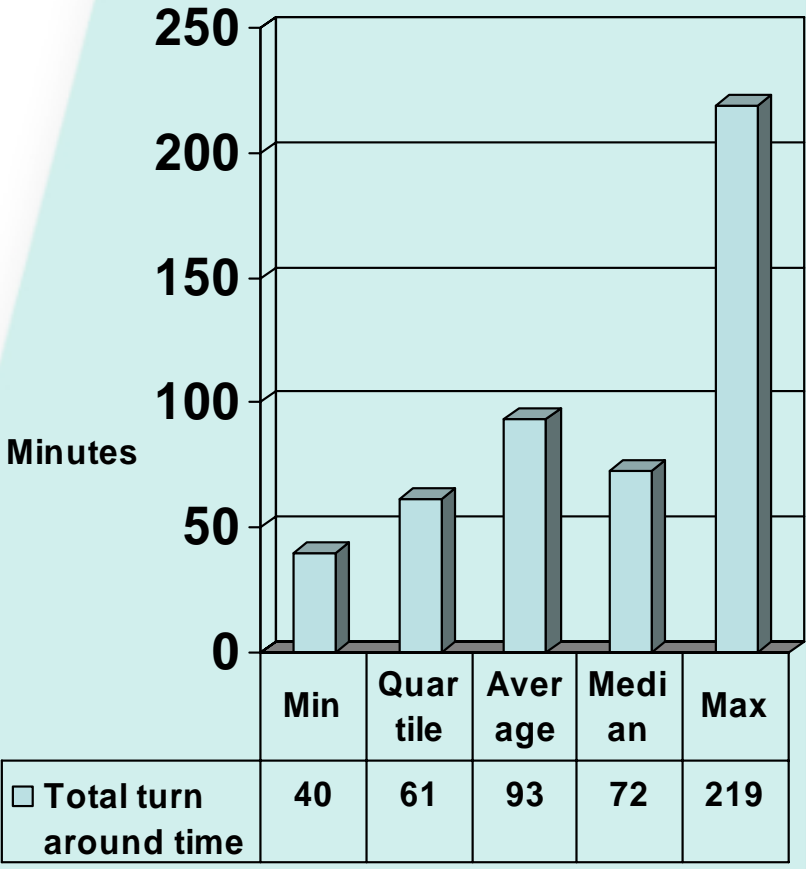
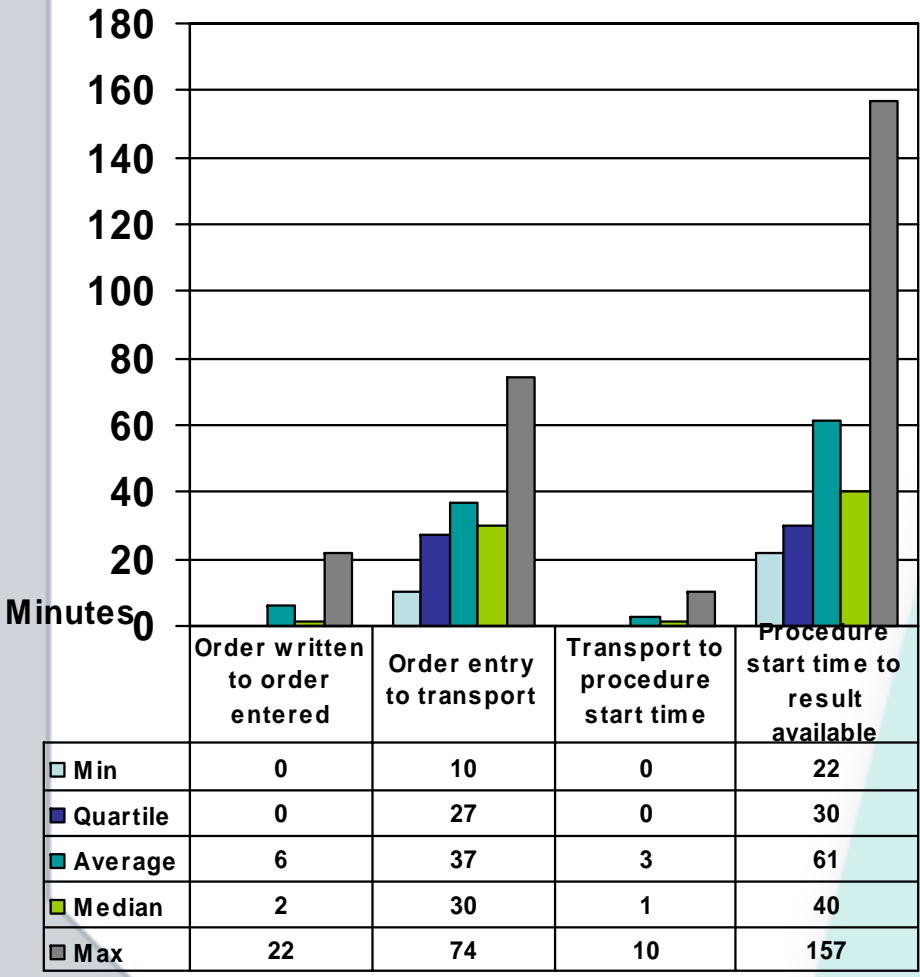
CT w/o Contrast Turnaround Time



CT w/ Contrast Turnaround Time



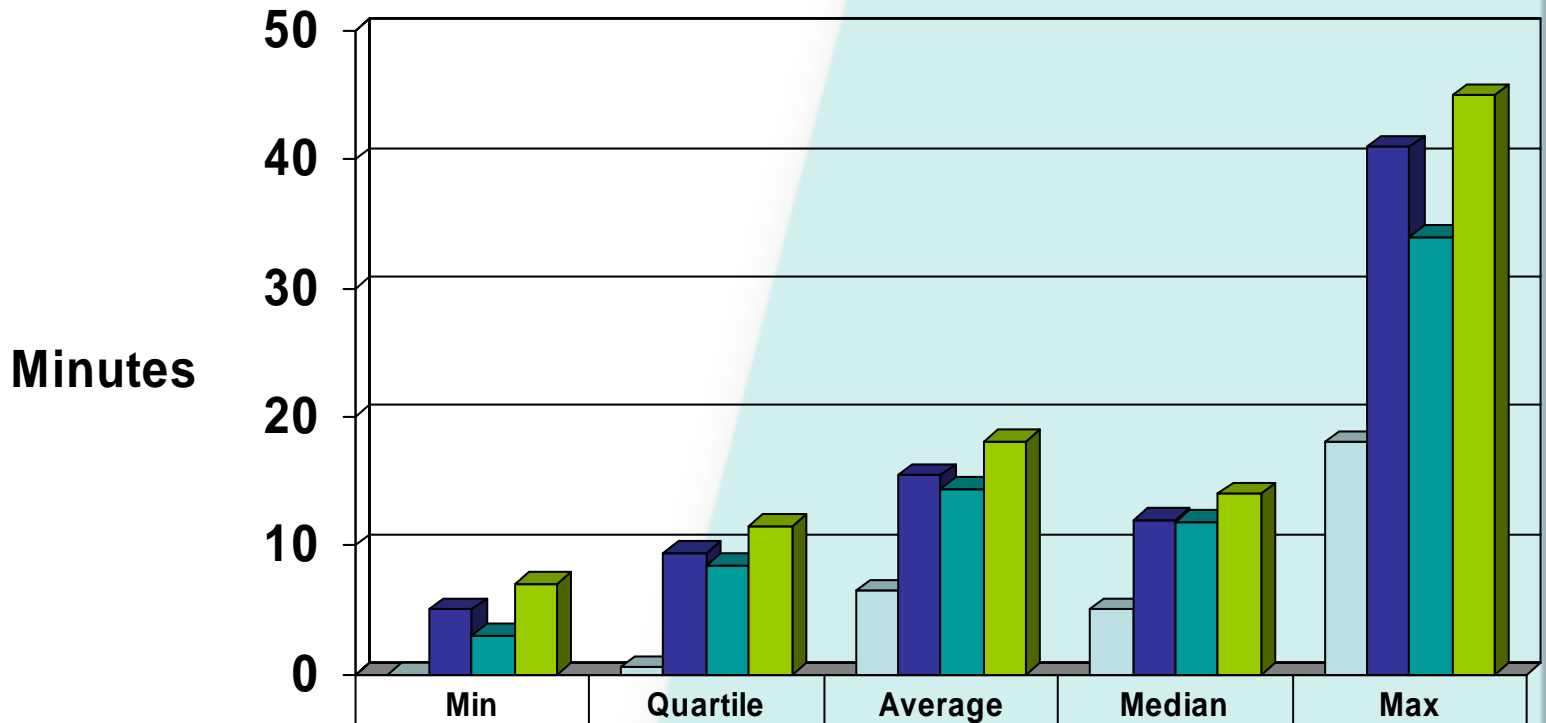
Ultrasound



Laboratory Processes

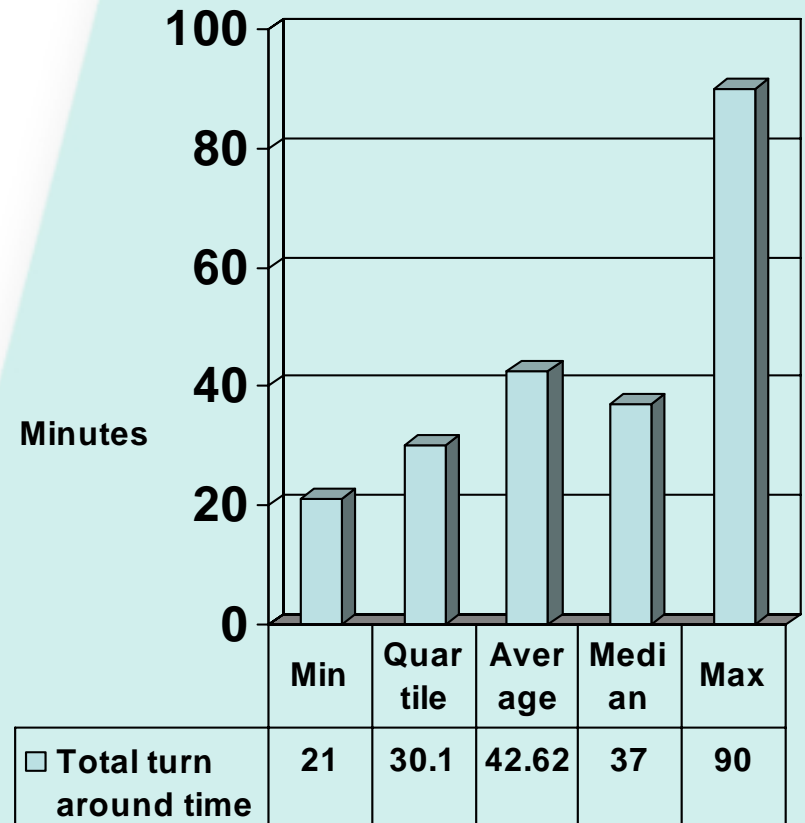
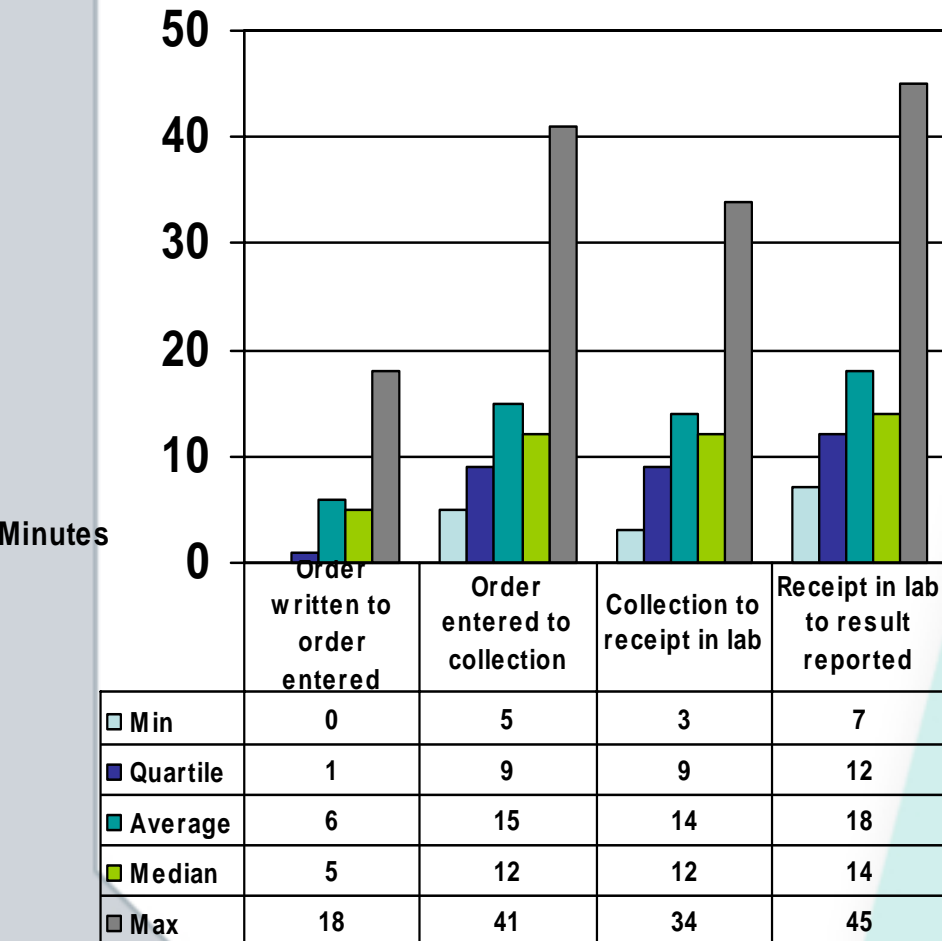
- 92% of Respondents state ED Staff Perform Phlebotomy an average of 84% of the time.
- 73% of Laboratories report results as available, 27% report all at once.
- 76% of Respondents note they transport specimens to the Laboratory via Pneumatic Tube system.
- ED does not believe Lab Stats are valid or reliable.

Laboratory Turnaround Times

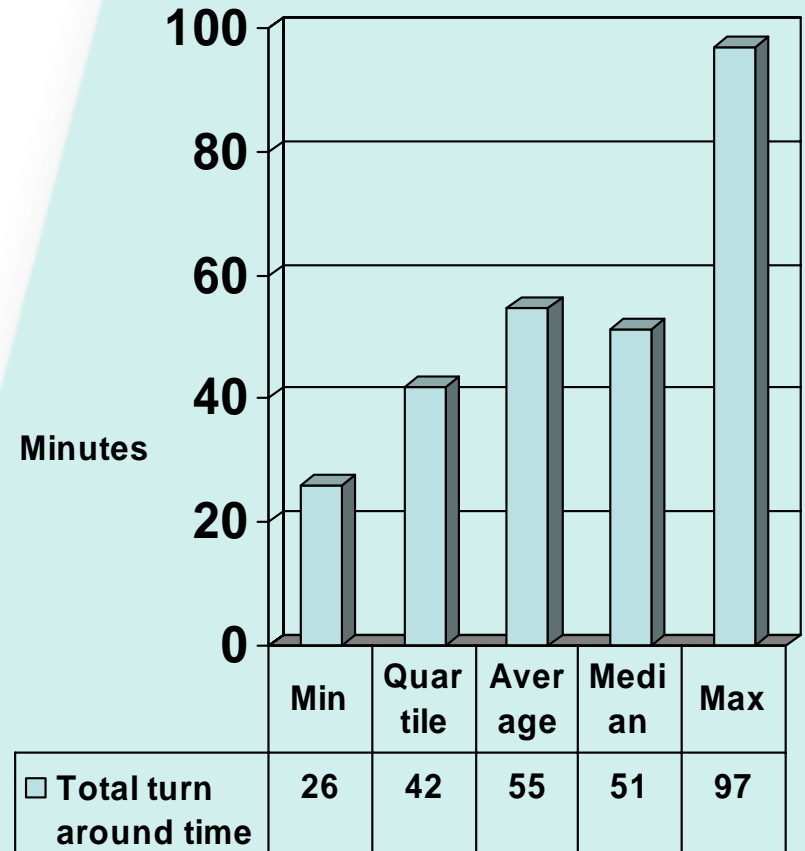
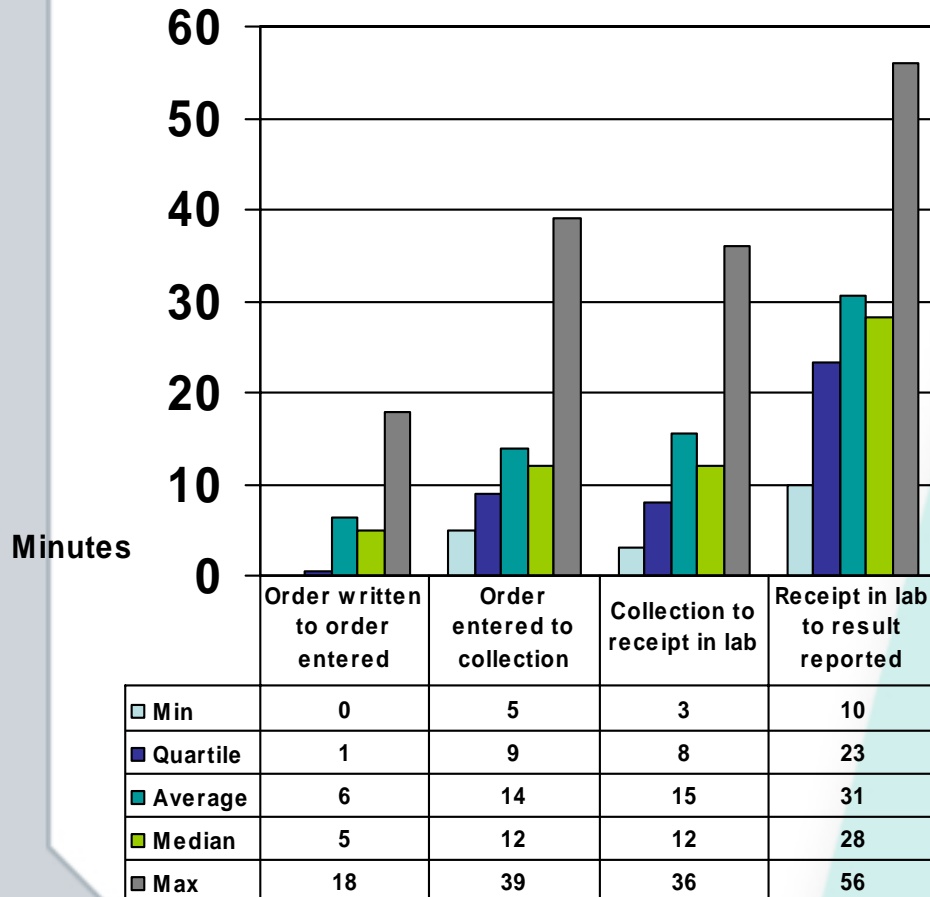


	Min	Quartile	Average	Median	Max
Order written to order entered	0	1	6	5	18
Order entered to collection	5	9	15	12	41
Collection to receipt in lab	3	9	14	12	34
Receipt in lab to result reported	7	12	18	14	45

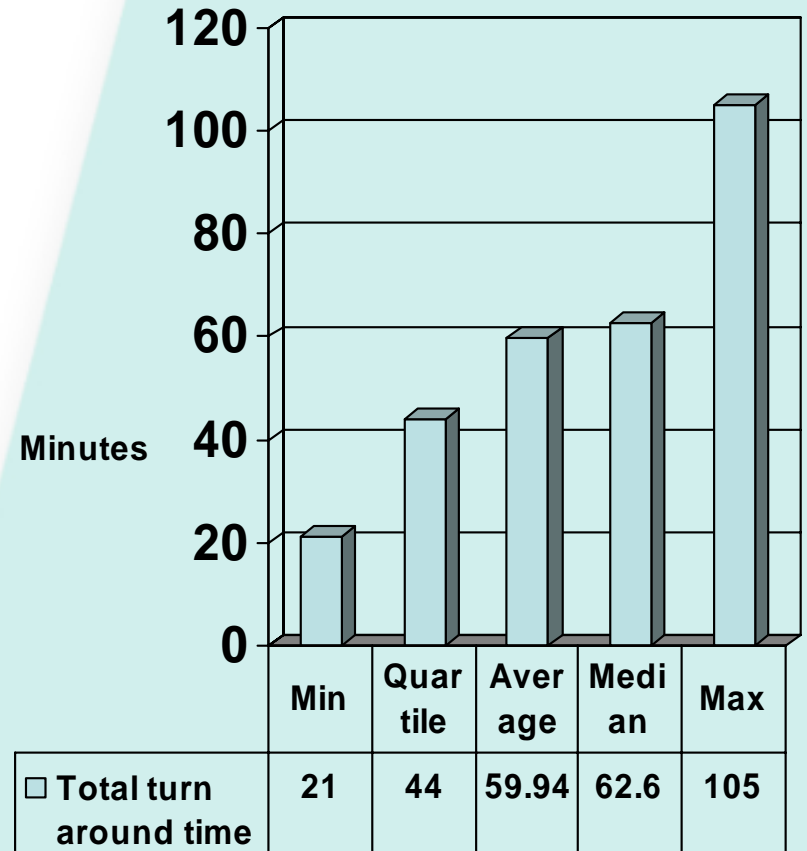
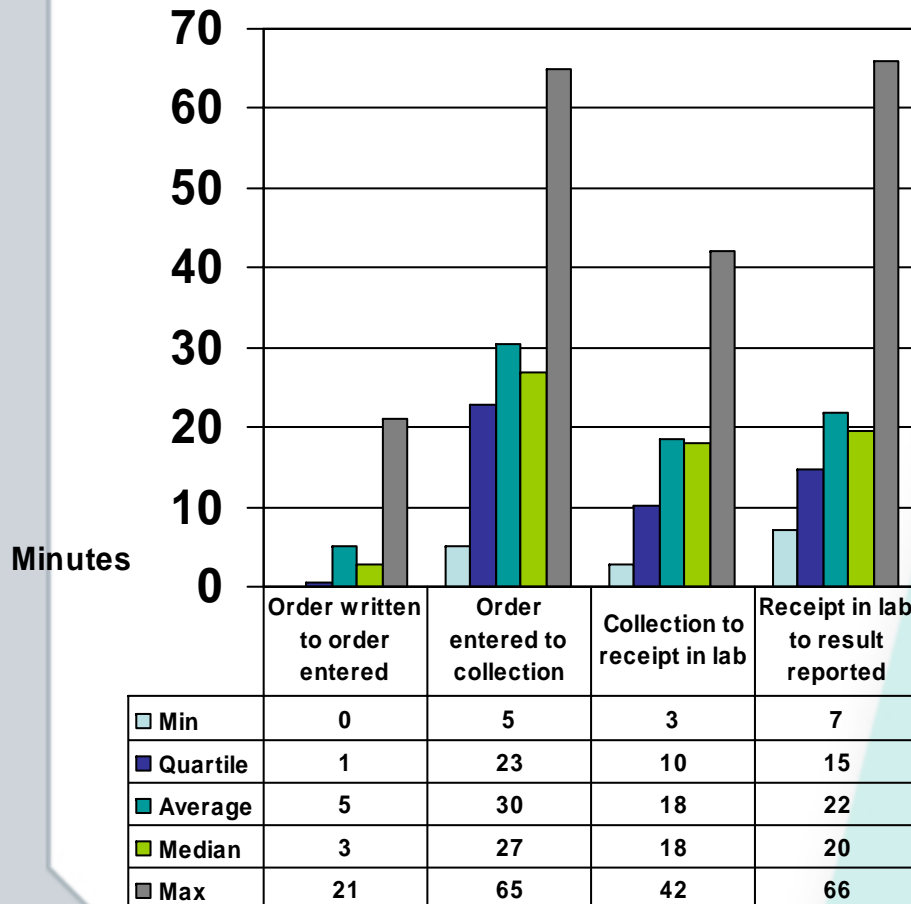
CBC Turnaround Time



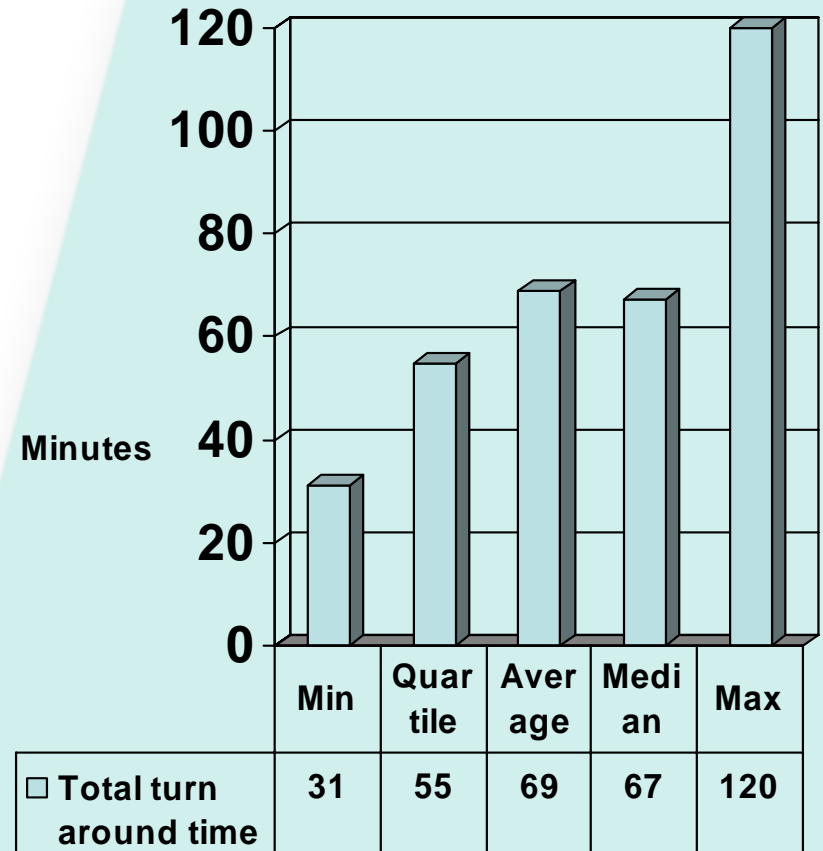
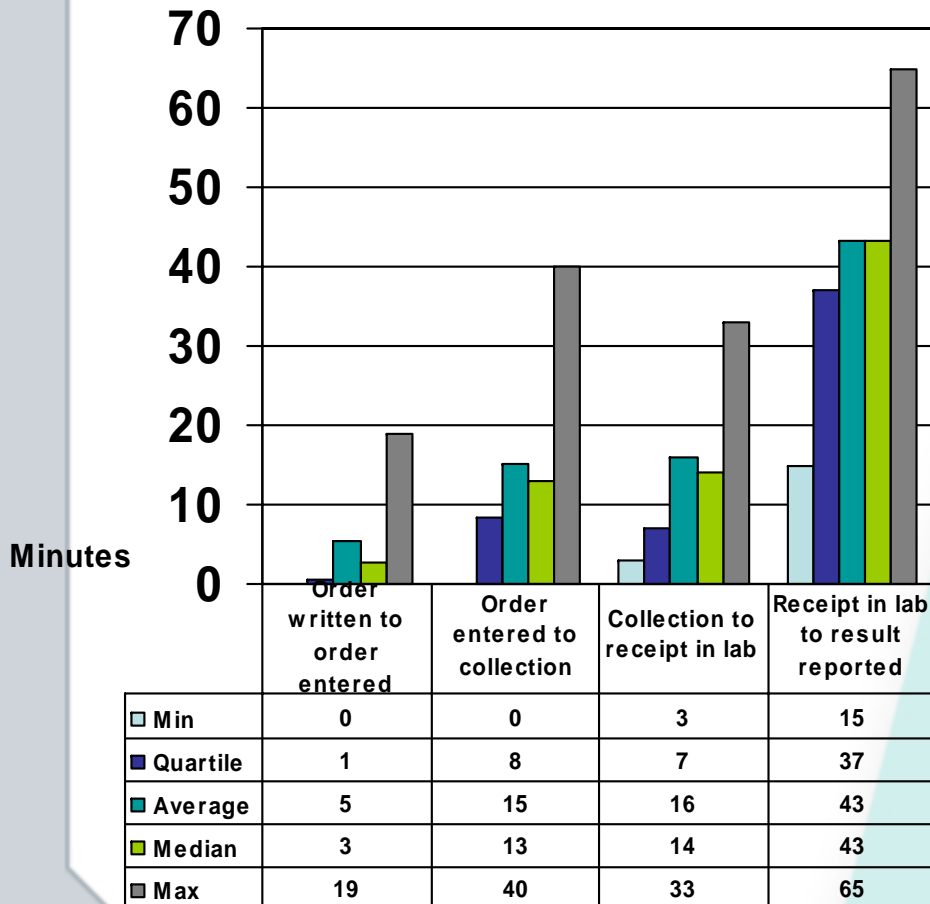
BMP Turnaround Time



Urinalysis Turnaround Time



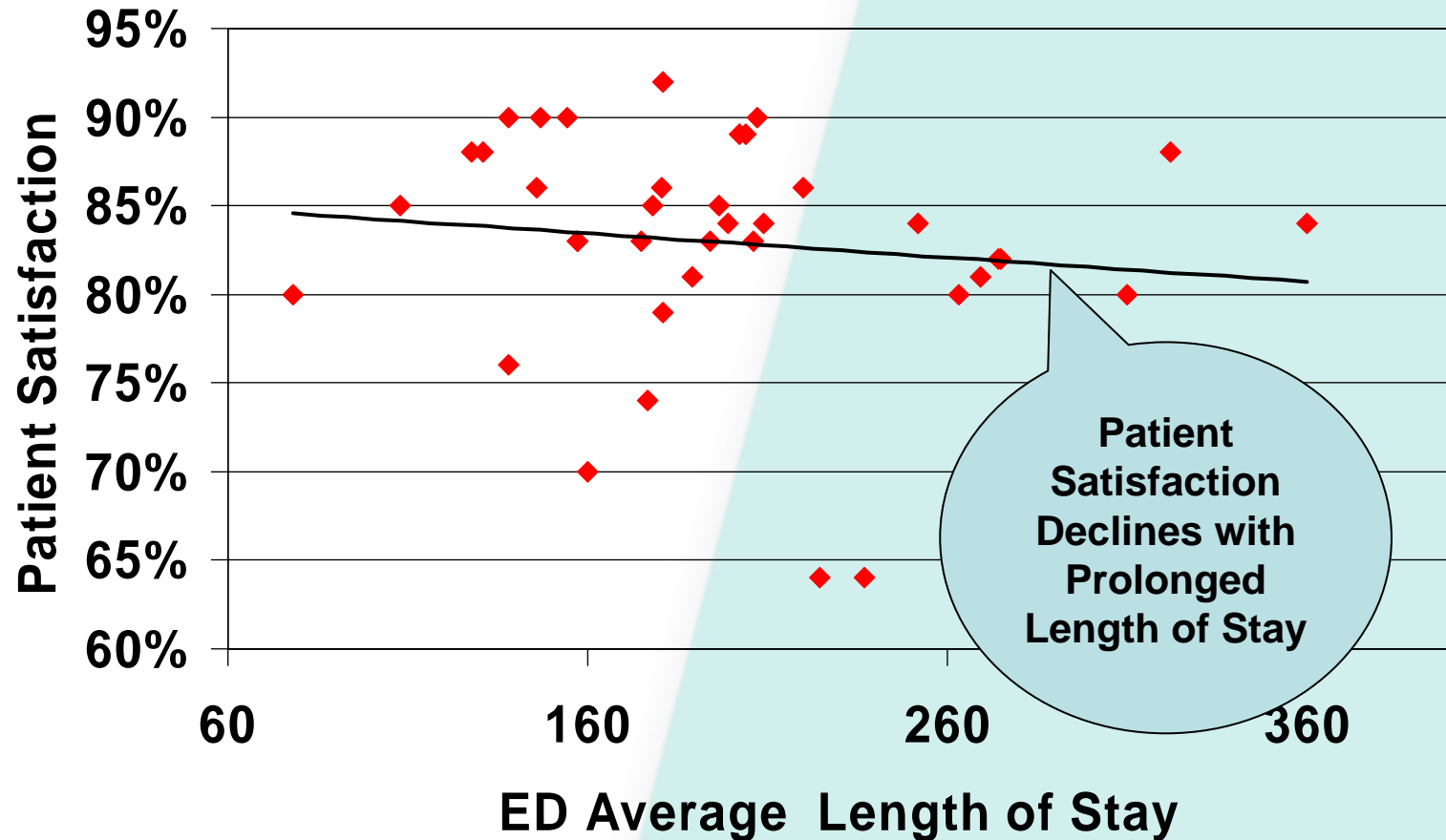
Troponin Turnaround Time



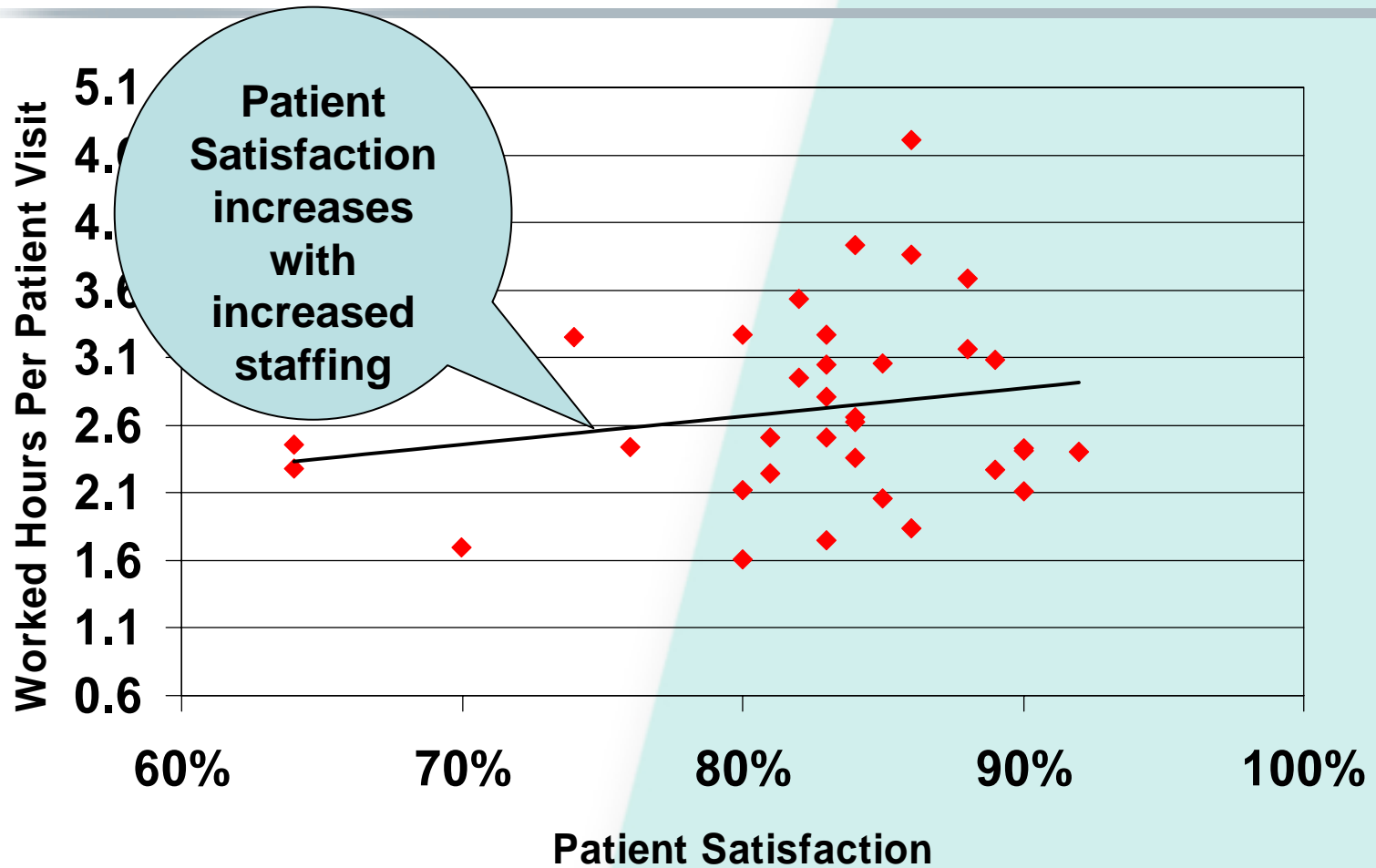
Correlations

- Length of Stay and Patient Satisfaction
- Nursing Worked Hours/Visit and Patient Satisfaction
- Nursing Worked Hours and ED Length of Stay
- Patient Satisfaction and Physician Staffing
- Physician Staffing and ED Length of Stay

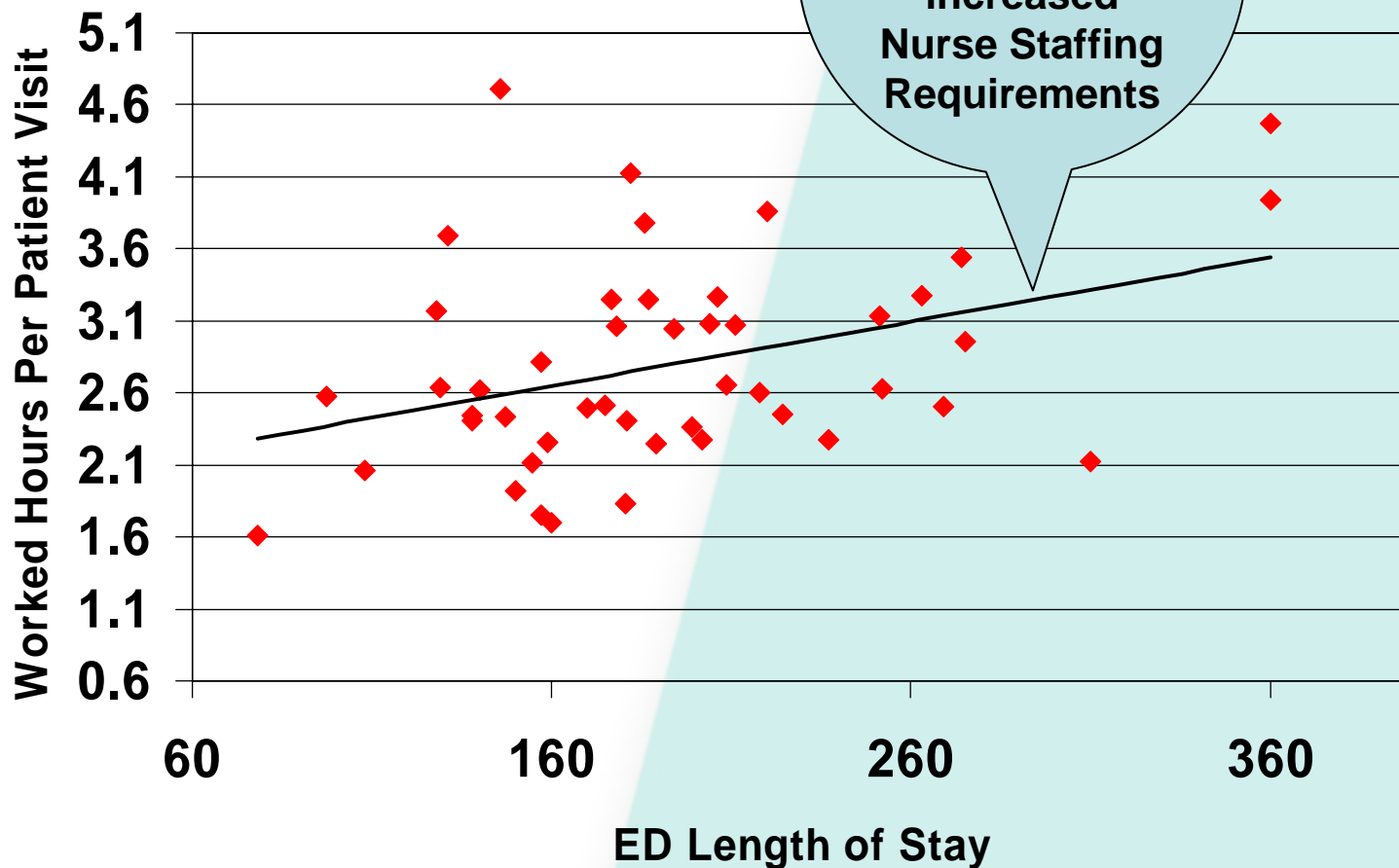
Length of Stay and Patient Satisfaction



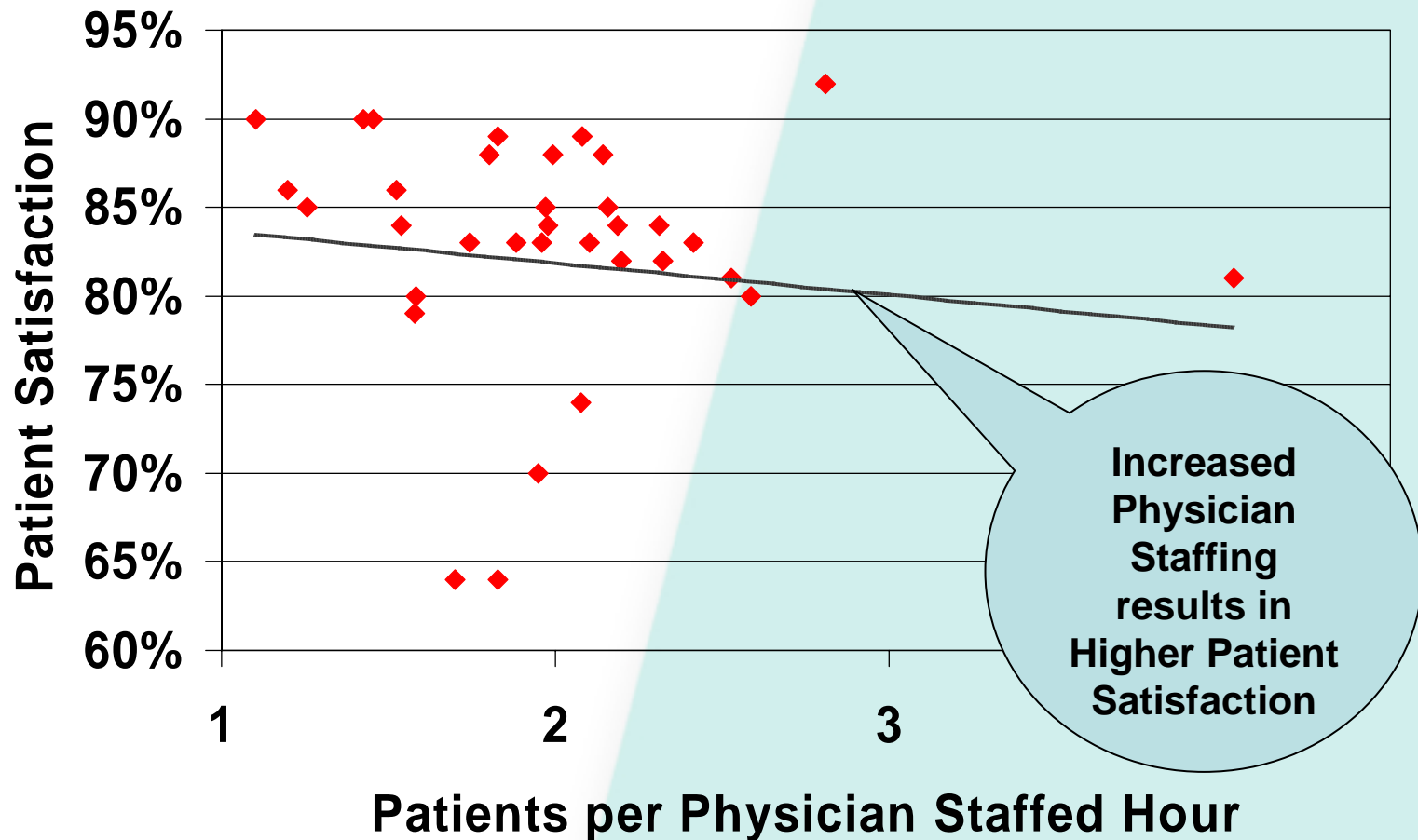
Nursing WHPPV and Patient Satisfaction



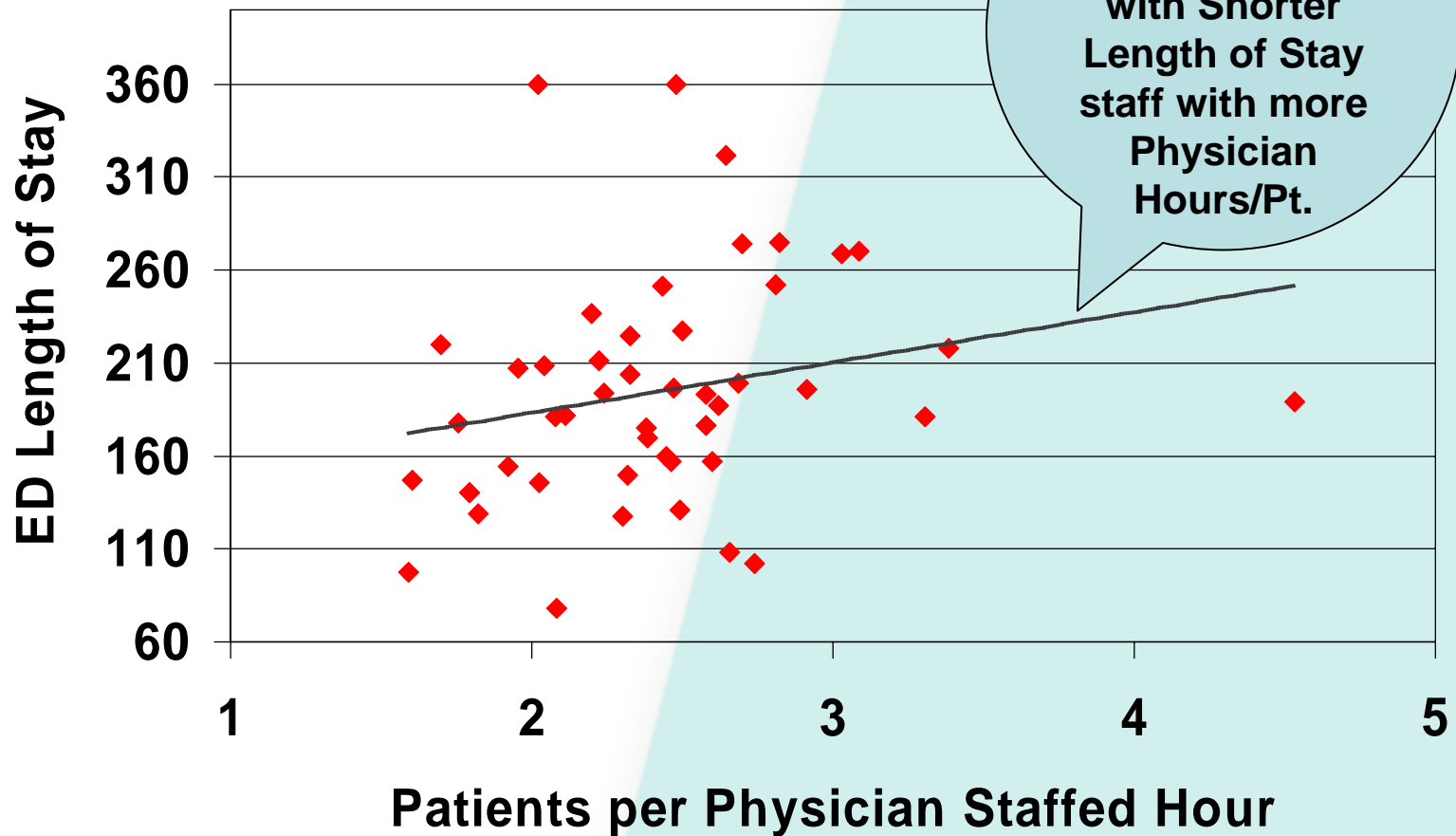
Nursing WHPPV and ED Length of Stay



Patient Satisfaction and Patients per ED Physician/PA/NP Staffed Hour



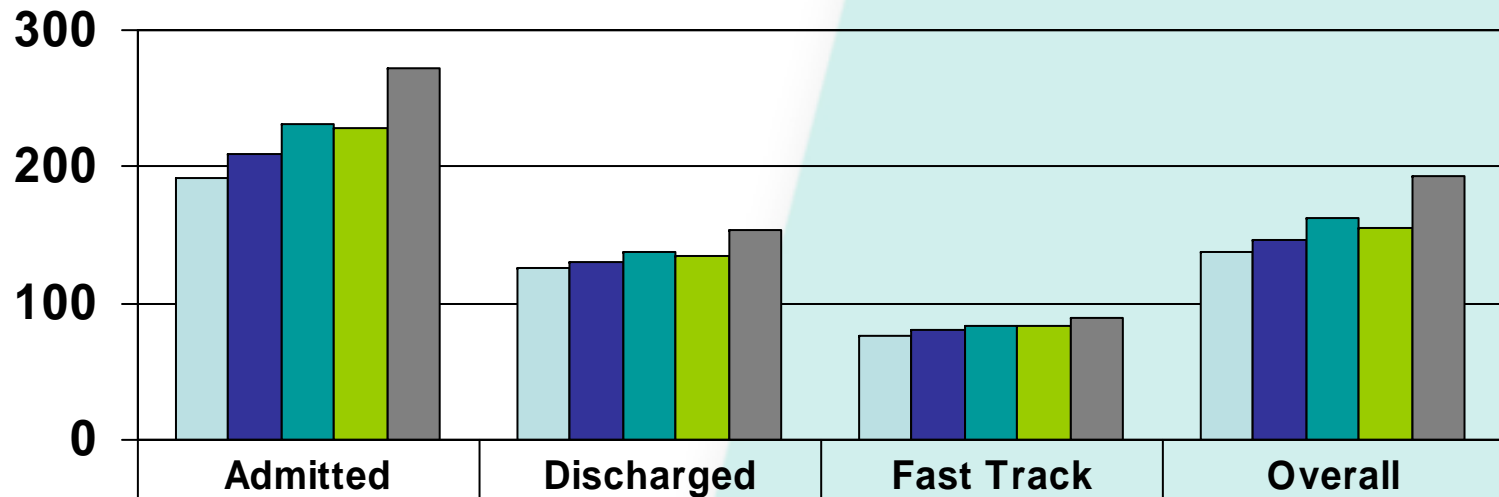
ED Length of Stay and Patients per ED Physician/PA/NP Staffed Hour



Characteristics of “Balanced” Performers

- Average Volume – 40,109
- 60% Rural, 40% Urban
- Average Age - 37
- 100% Non Teaching
- 1600 patients per ED bed; 1 had CDU/EAU
- 13% of patients Admitted; 47% of all hospital admissions originate in ED.

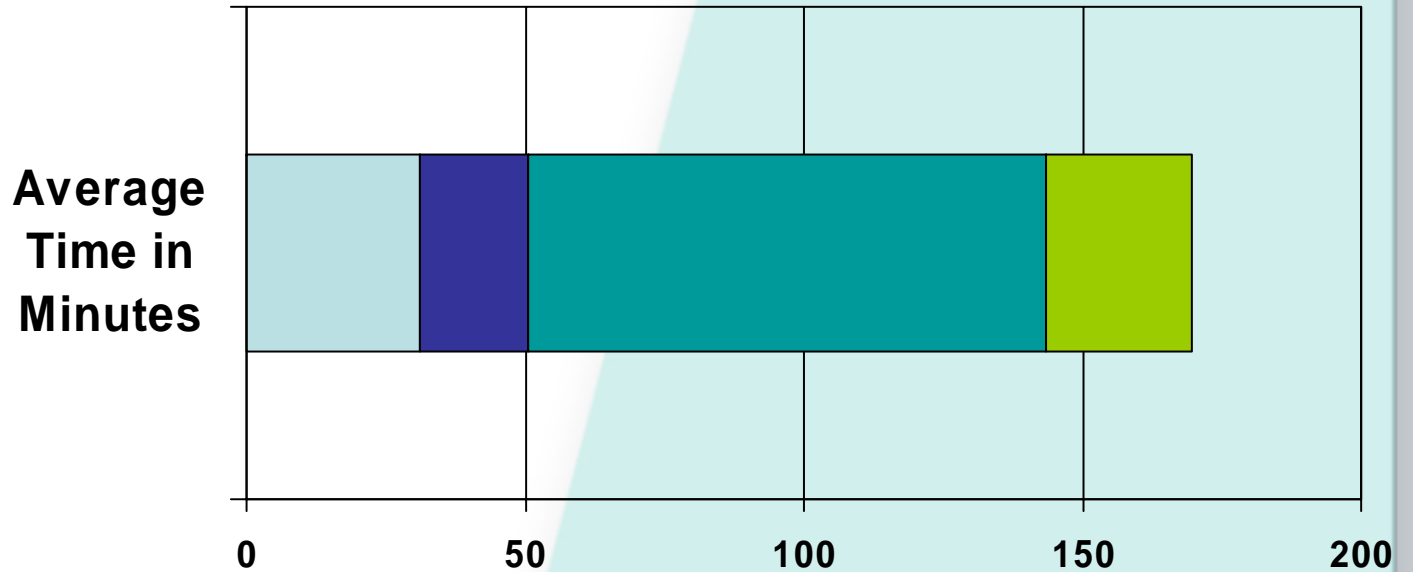
Overall Length Stay of “Balanced” Performers



	Admitted	Discharged	Fast Track	Overall
Min	192	126	77	138
Quartile	210	131	80	147
Average	231	138	83	163
Median	228	135	83	154
Max	273	154	90	193

“Balanced” Performers

Average Sub Process Times



	Average Time in Minutes
■ Patient disposition decision to release from ED time	26
■ MD Eval to patient disposition decision time	93
■ In ED bed to MD evaluation time	19.5
■ Patient arrival to time in ED bed	31

Better Performers Practices

- The majority used a quick registration process prior to triage.
- 100% responded “Yes” or “Somewhat” to having a Fast Track.
- Patients can then be assigned room by triage and registered at their bedside.
- 100% are able to initiate orders by protocol at triage.
- 80% have consistent nurses assigned to the role of charge nurse.
- 80% were staffed by a “small local” ED physician group. Ave. PPMD Hour – 1.85.

Radiology Best Practices

- Physician order entry.
- 100% of Better performers ED physicians treat based on initial interpretation.
- Night Hawk service.
- Parallel access to patient. Radiology Staff transports to Radiology.
- Start contrast early; as early as triage.
- Use smaller amount of oral contrast; Rectal contrast.

Laboratory Best Practices

- Specimen Label colors different for ED. ED specimens prioritized.
- Utilized increased Point of Care testing, i.e. ISTAT
- Laboratory/ED User Group where each “weighs in” on throughput times.
- Proactive ED draw rainbow label with registration label; Lab labels print in Lab; Lab staff “marry up” upon arrival.
- Lab has access to ED tracking system.
- MD notification of test results; Paperless access to results.

Questions?



Jeanne McGrayne

(910) 947-6075

Jeanne_Mcgrayne@premierinc.com

Want to Participate in ED Database?

Contact

Jennifer_Stephens@premierinc.com