Mental Health ED Boarding

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Mental Health ED Boarding

- MA survey 2012
  - 100% ED directors reported boarding of psych pts
  - 85 % daily basis
  - 50 % increasing yearly since 2007
- Consumes ED resources
- Prolongs wait times for all patients
- Increase elopements and Left w/o Being Seen rates
- Reduced # ED beds available to accommodate surges
- Quality of Care: suffers (milieu, lack ongoing MH care)
  - no psychiatric care/intervention undertaken

"Boarders without doctors"

'Point in Time' Results

- MACEP conducted an 8AM "point in time survey" of all EDs in MA in March, April and July of 2011
  - How may boarders ? * Hours since decision to admit?
- **Findings**:
  - **16% (1 in 6) of ED beds are filled with mental health patients awaiting admission**
  - On average 39% boarded in the ED for more than 24 hours
  - 10% boarded in the ED for more than 3 days
  - 2.5% boarded in the ED for **more than 5 days**

Date	% of EDs responding	# of Boarders	# of hours	% of ED beds	Mean hours boarding
3/21/11	69%	149	5269	14%	35
4/21/11	94%	180	5335	13%	29
7/11/11	75%	111	3752	16%	33
2/20/15	79%	192	5547	16%	26

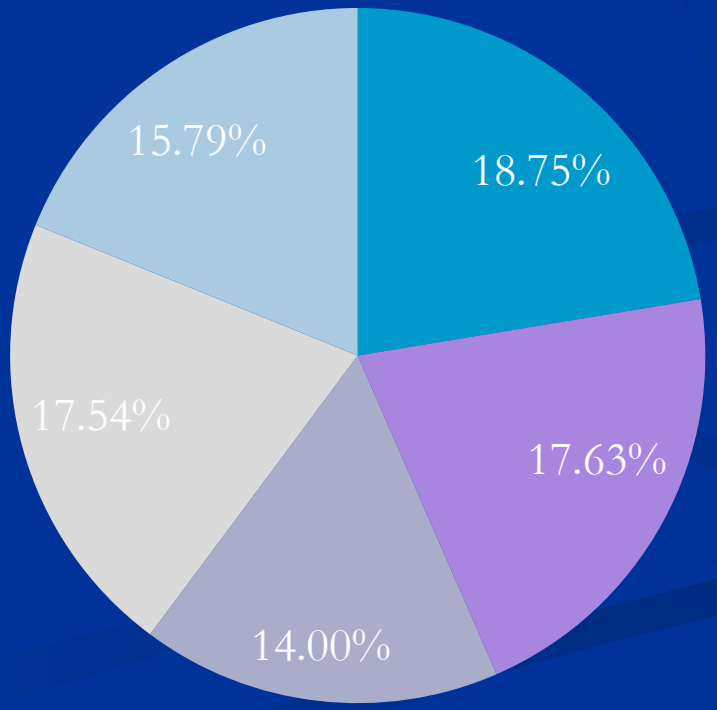
ED Beds:BH Boarders

1/18 patients present to ED with MH Dx

1 in every 5.5 patients that occupies a bed in the ED have MH Dx

Maxed at 54% bed occupancy in an ED with 185 pt/day volume

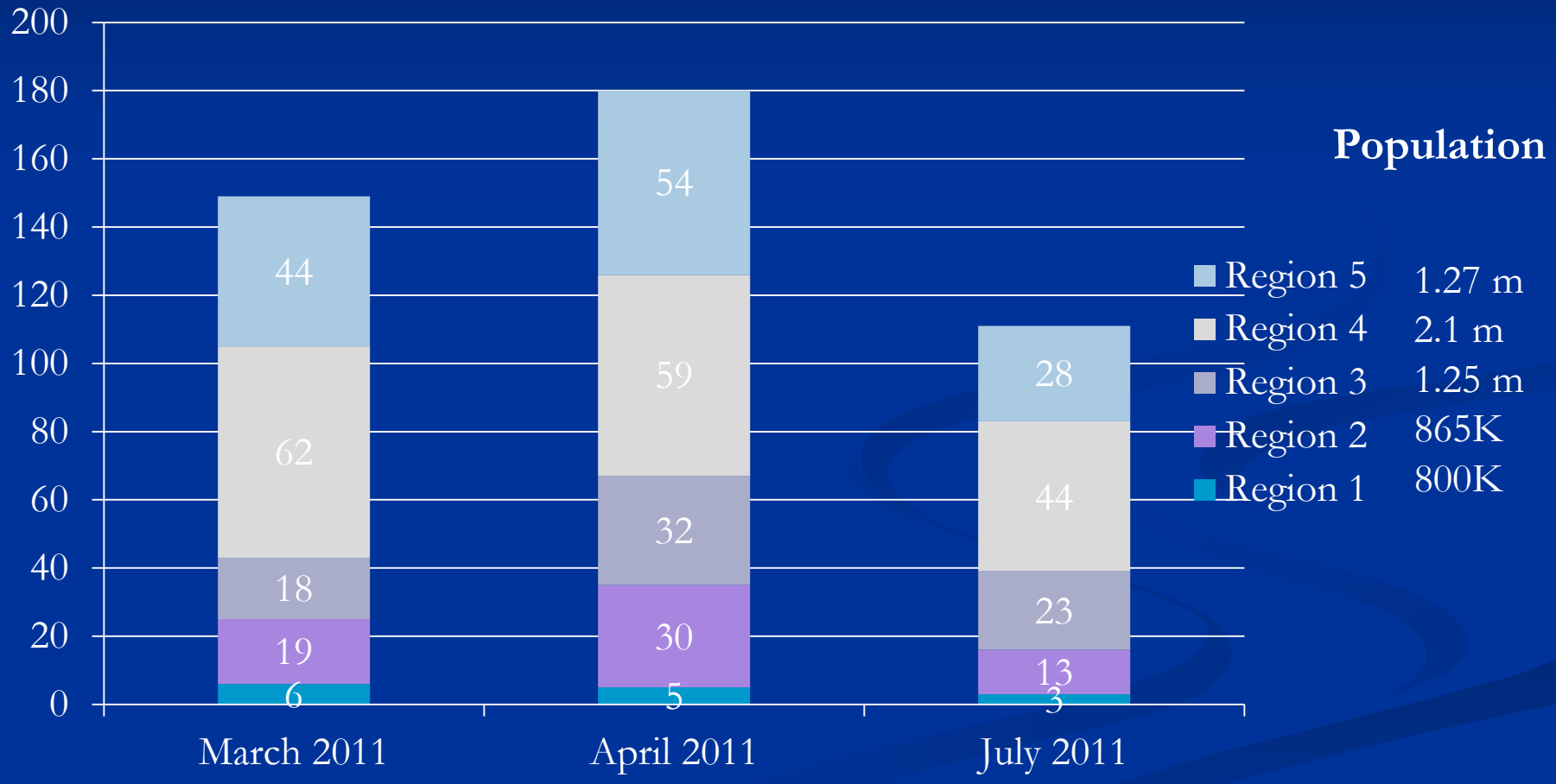
Mean % ED Beds to BH Boarders



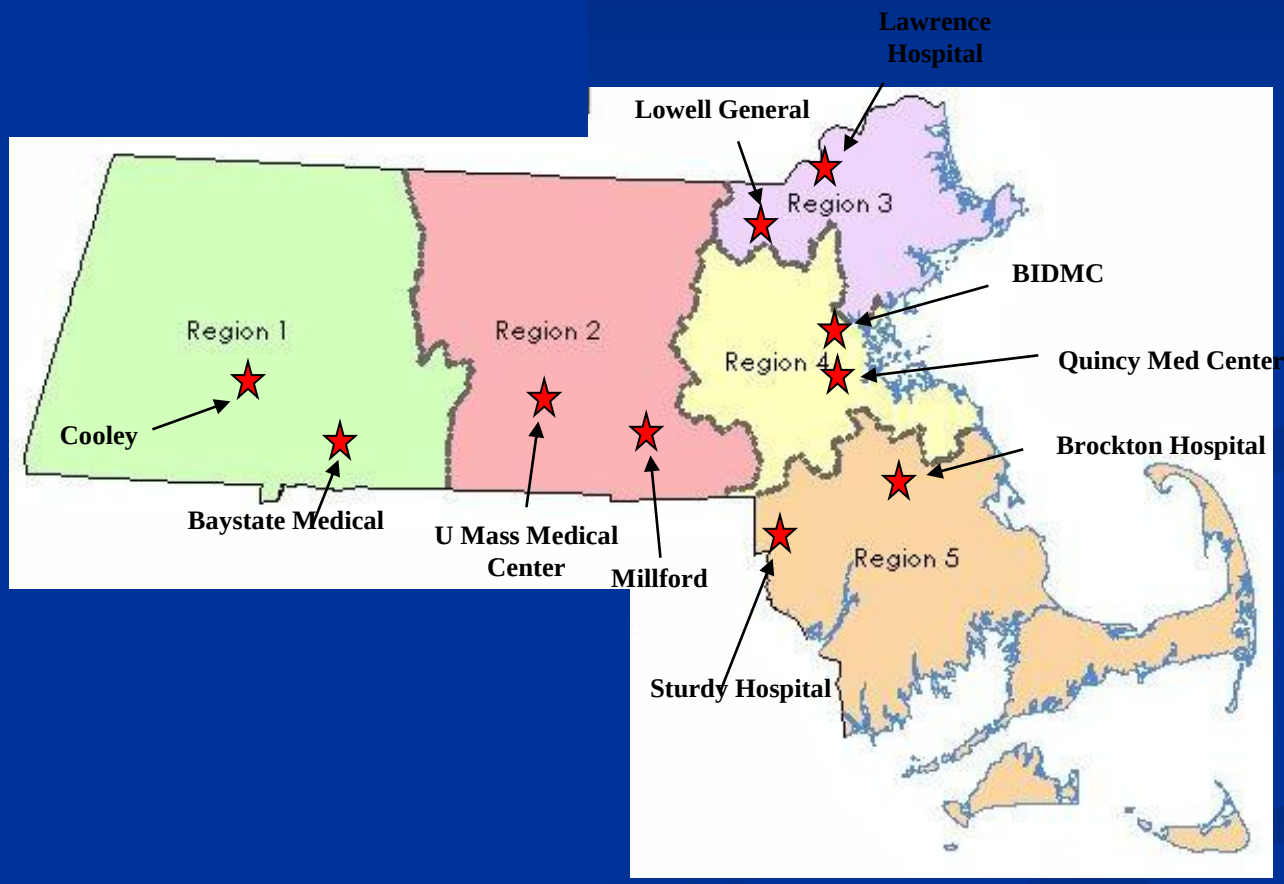
Are we Over or Under Bedded?

Total BH Boarders by Region

Mal-distribution



REGION 5: 16 % population yet 32% of MH boarder burden


Lawrence Hospital
Lowell General
Region 3
BIDMC
Region 1
Region 2
Region 4
Quincy Med Center
Cooley
Brockton Hospital
Baystate Medical
U Mass Medical Center
Millford
Region 5
Sturdy Hospital

MACEP Grant Understand Causes MH LOS and Boarding

- Two week time frame: Jan/Feb 2012 (f/b future date TBD)
- 2 Hospitals per geographic region
- teaching/community/city/rural
- ED volume
  - 37K – 115K
  - 630K visits per year
  - ~22% MA ED volume

Data fields

- Race
- Ethnicity
- Mode
- Insurance
- Date/Time
  - Arrival
  - MH request
  - MH arrival
  - Bed Request
  - Departure
- Medical Assessment
  - Lab tests
  - Active Etoh
  - Active substance abuse
  - Active medical problem
- Psych Dx
- Close obs/restraints
- Dispo:
  - Inpt, observ, discharge: setting Hospital unit vs Free standing
    - location

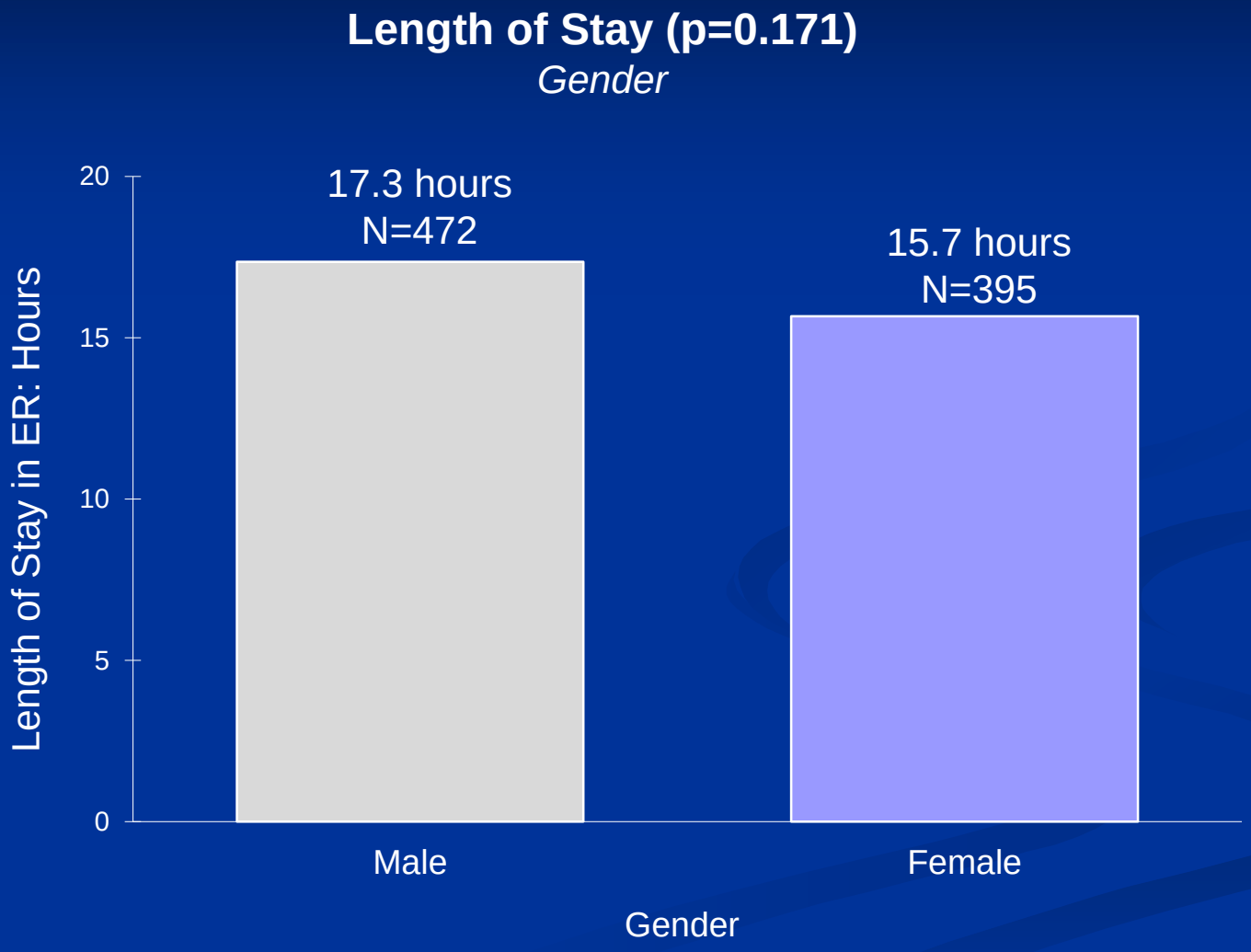
Data Fields (cont)

- Primary MH clinician:
- Secondary MH clinician (if applicable)
- Past medical Hx
  - Specific Dx
- Past Social Hx
  - Aggression, imprisonment, homeless, developmental disability, sexual offender
  - Recent psych admission
- Pre Hospital MH eval
  - Bed search initiated pre arrival

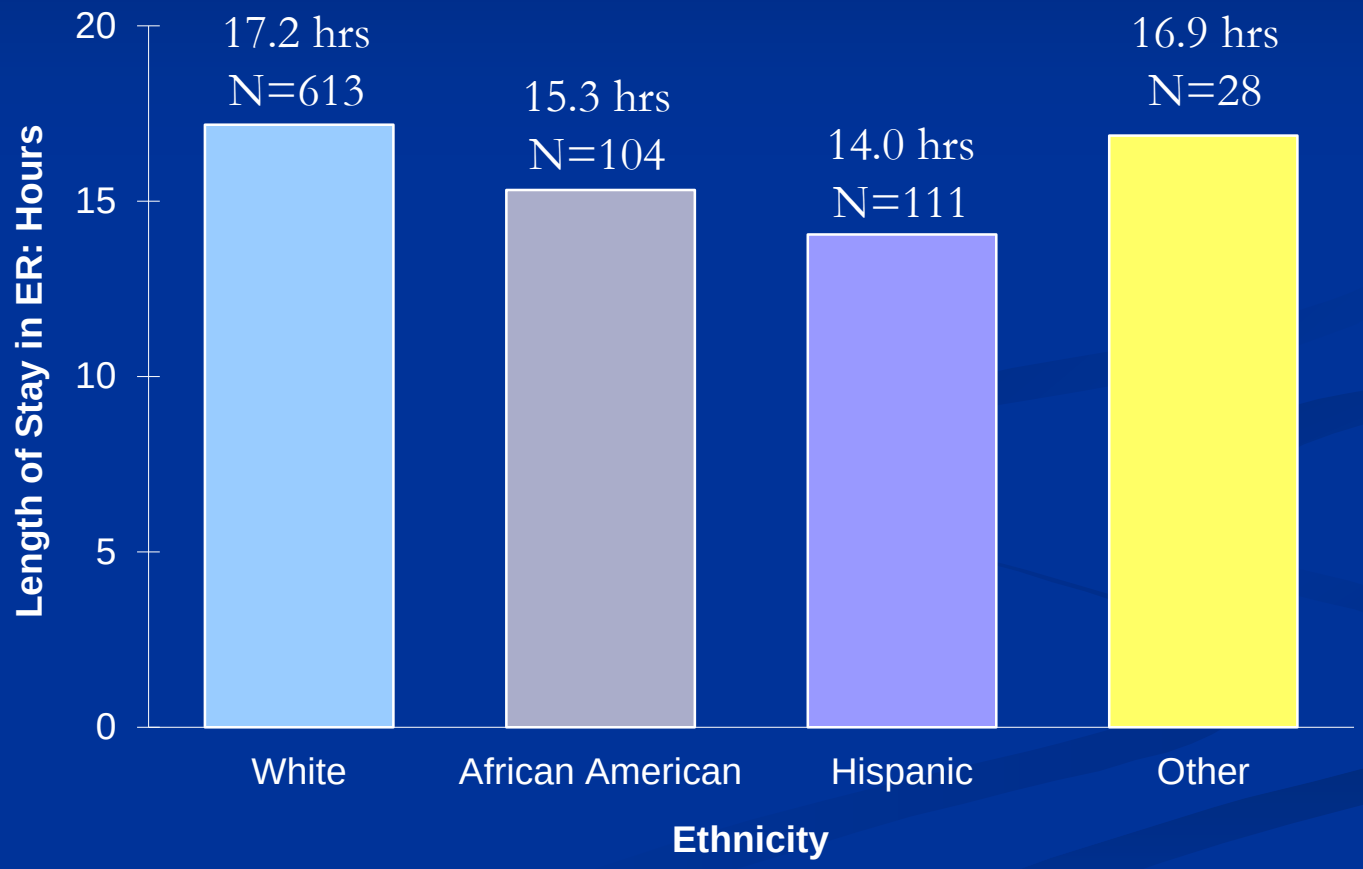
Data Findings

- 872 study patients
- Primary Analysis
  - ED process time analysis
  - Predictors of LOS
- Other conclusions

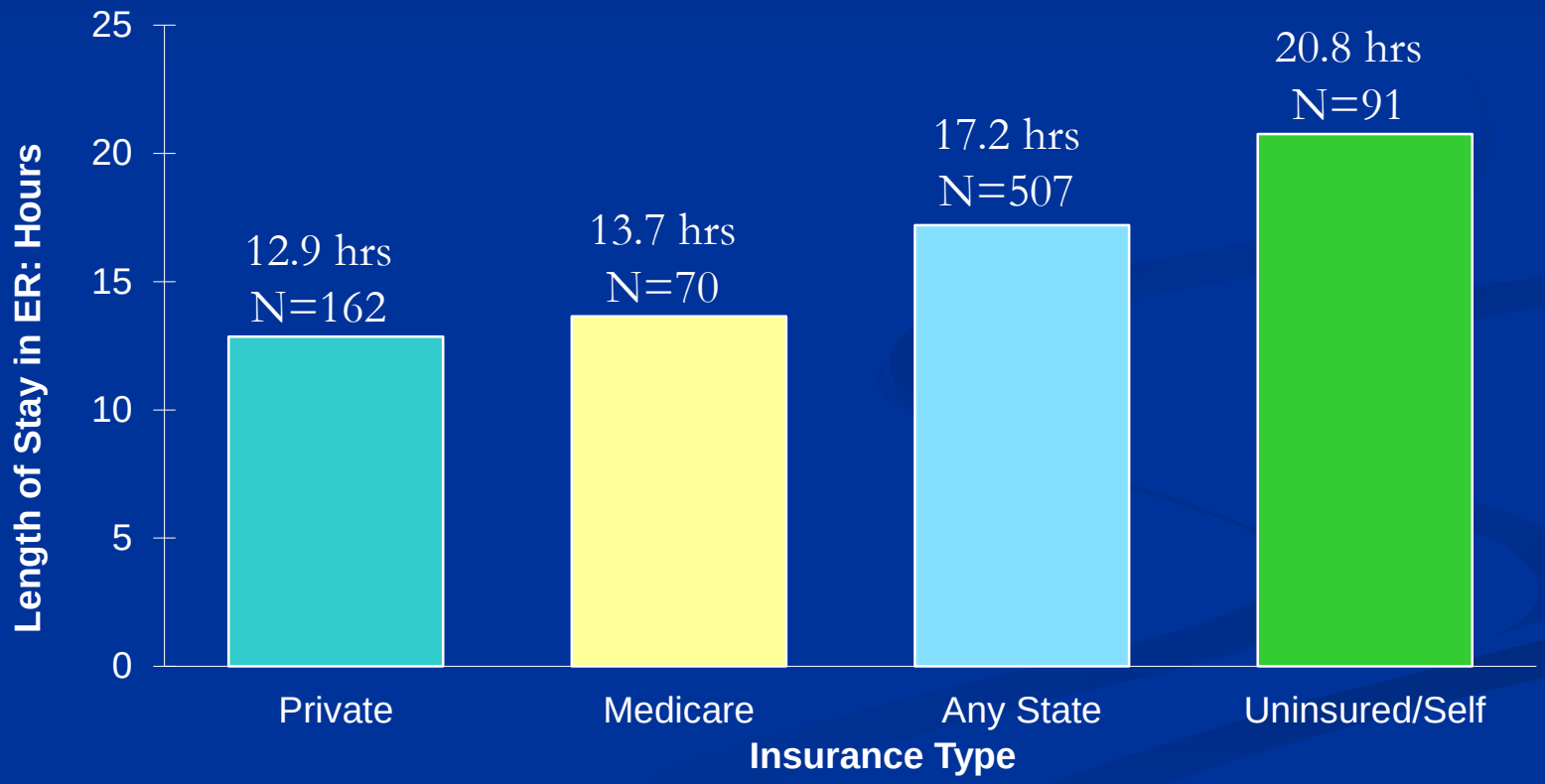
Summary of Results: Gender



Summary of Results: Ethnicity

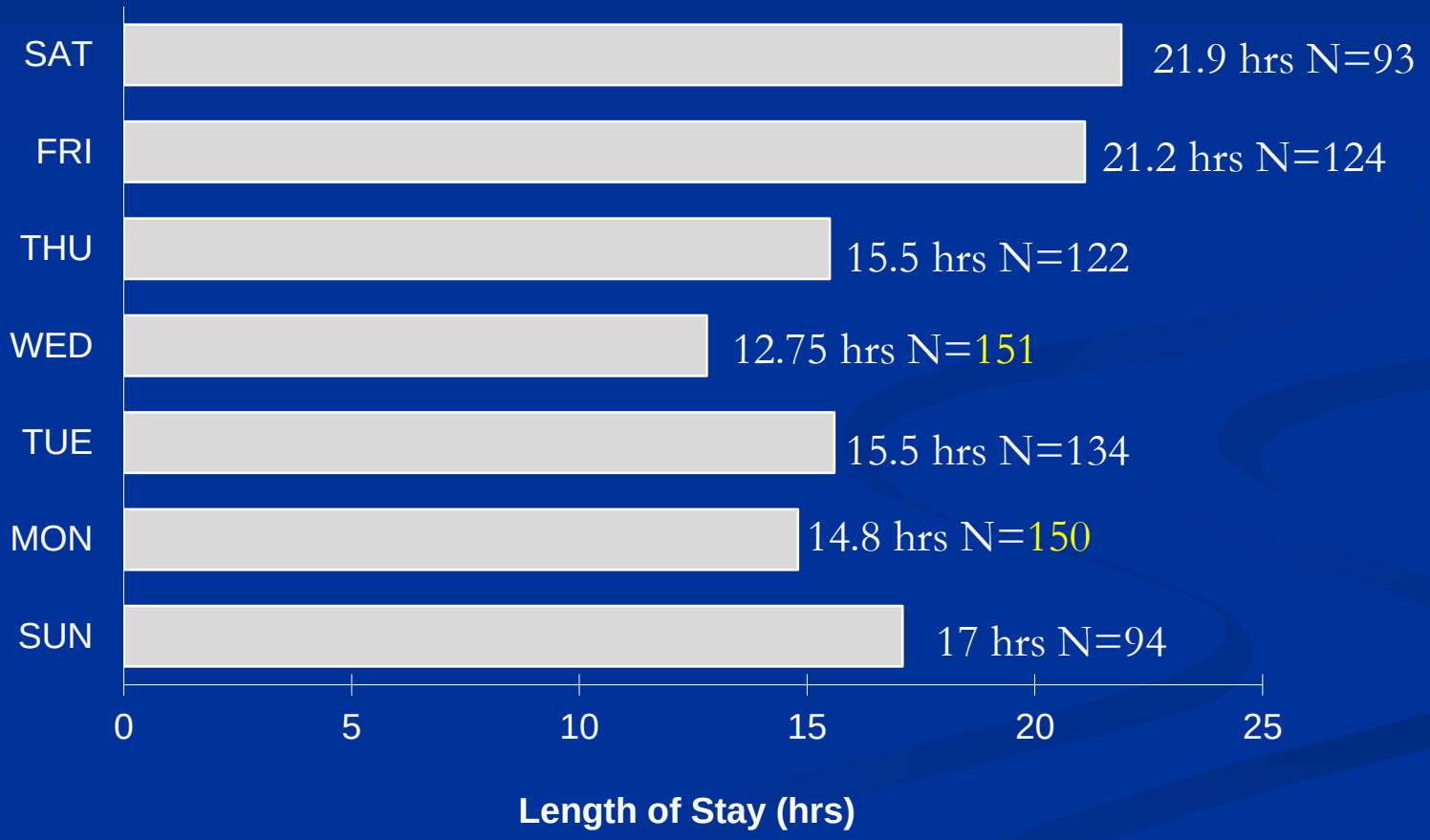


Summary of Results: Insurance as strong predictor

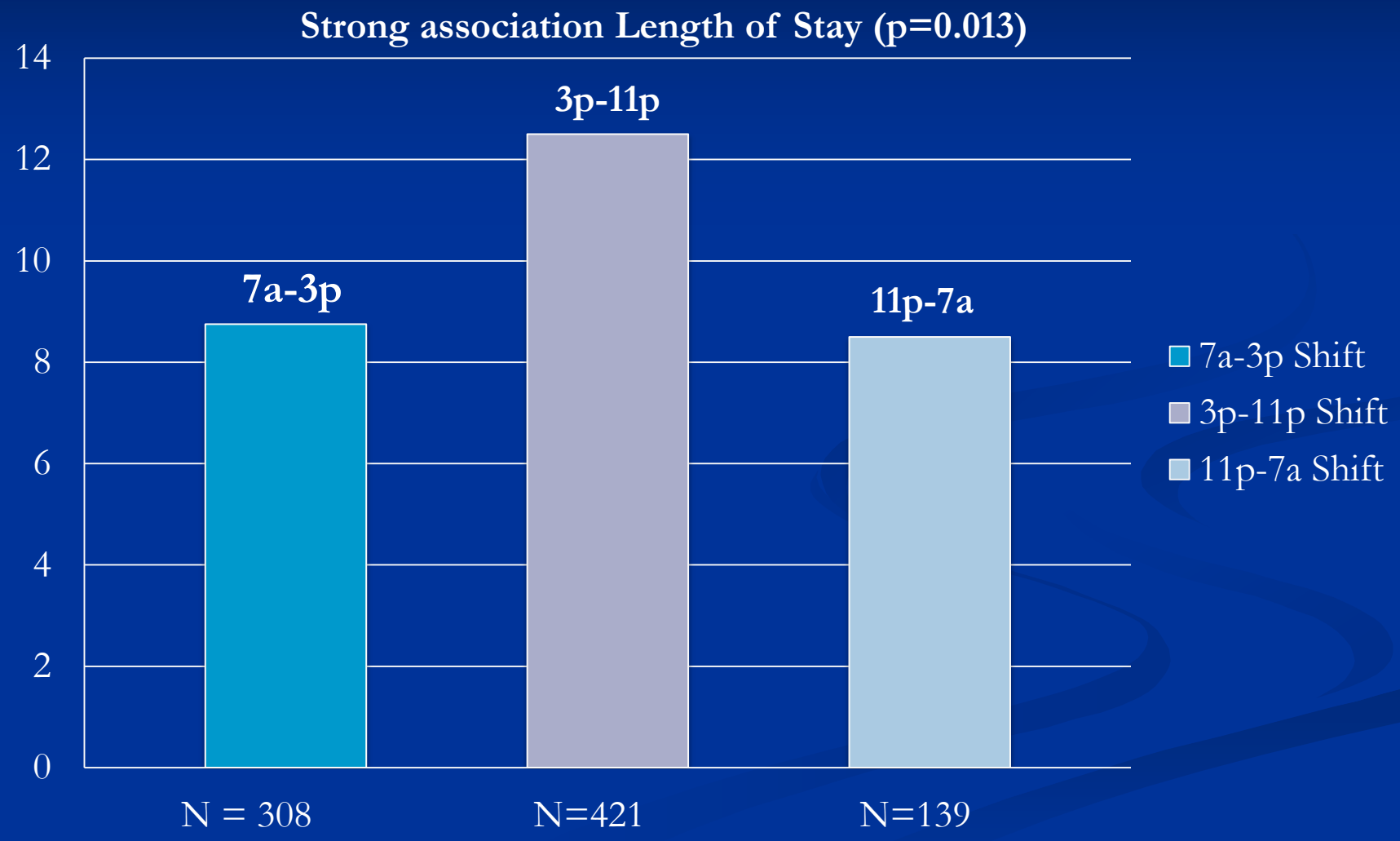


Summary of Results

Strong predictor LOS (Wednesday short: Fri/Sat long)



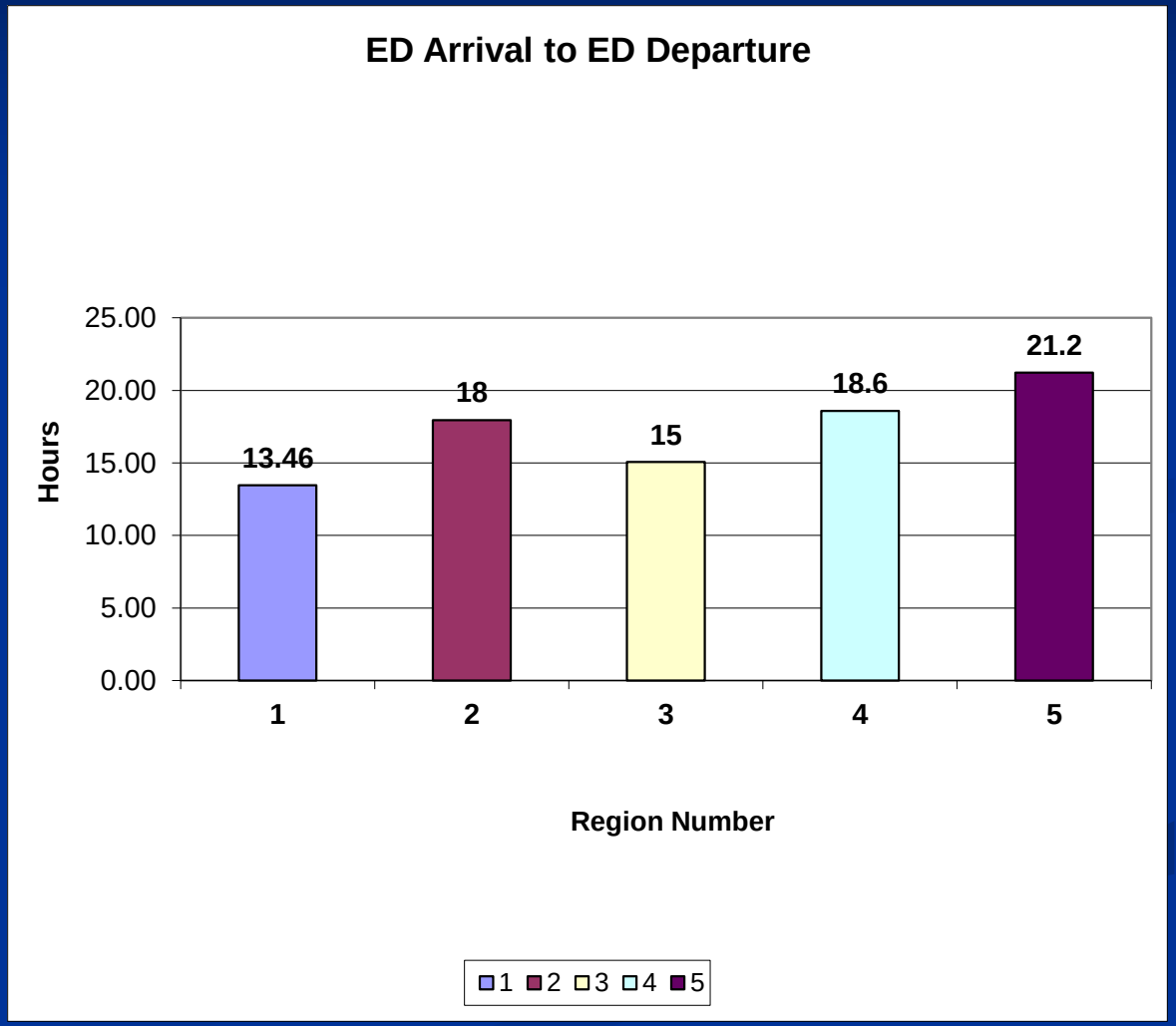
LOS By Shift


Strong association Length of Stay (p=0.013)
14
12
10
8
6
4
2
0
7a-3p
3p-11p
11p-7a
N = 308
N=421
N=139
7a-3p Shift
3p-11p Shift
11p-7a Shift

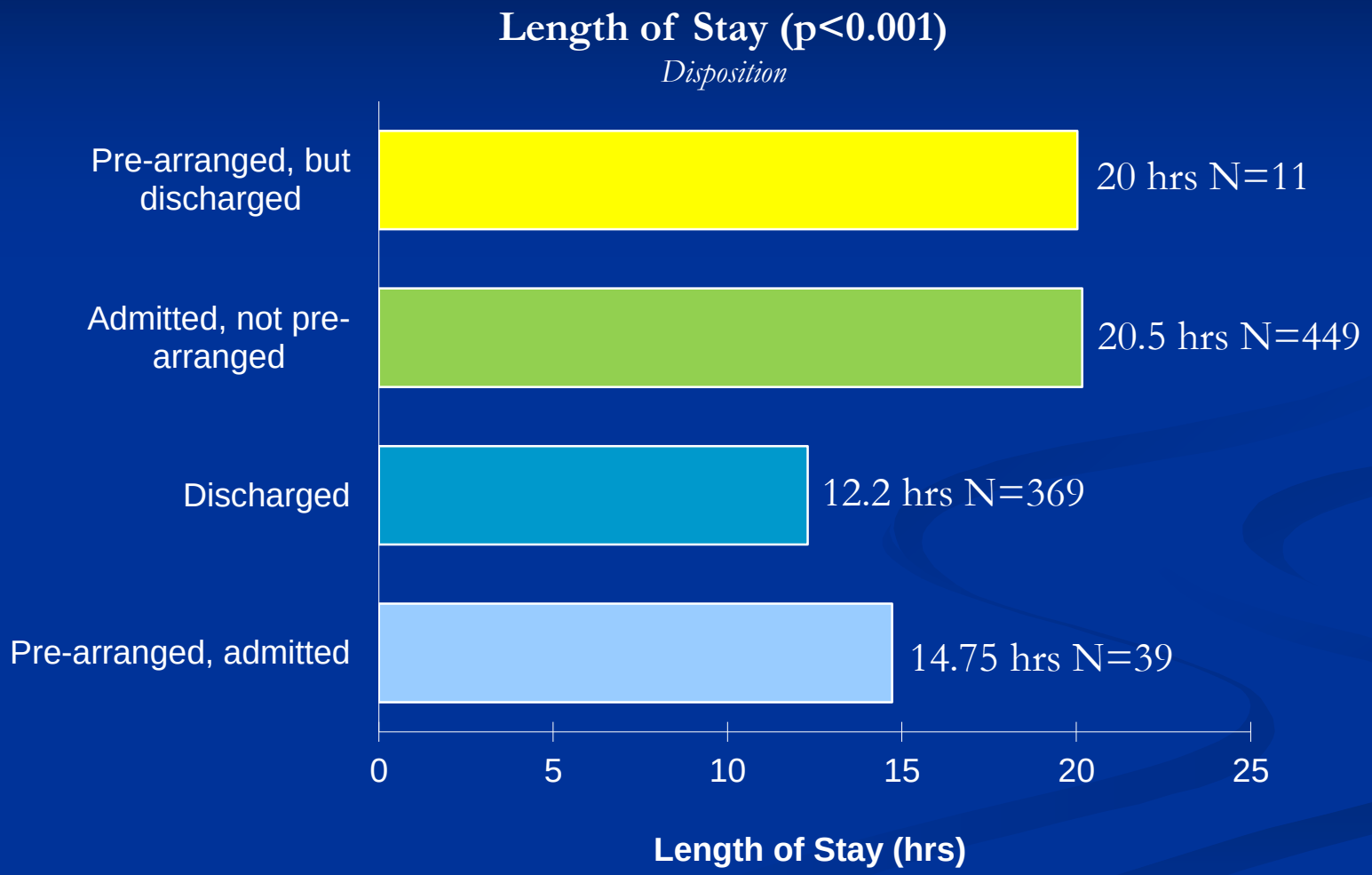
LOS by region

EMS Region

1 Cooley Dickinson
Bay State Medical
2 U Mass
Milford Whitinsville
3 Lawrence General
Lowell General
4 BIDMC
Steward Quincy Medical
5 Sturdy Hospital
Brockton Hospital



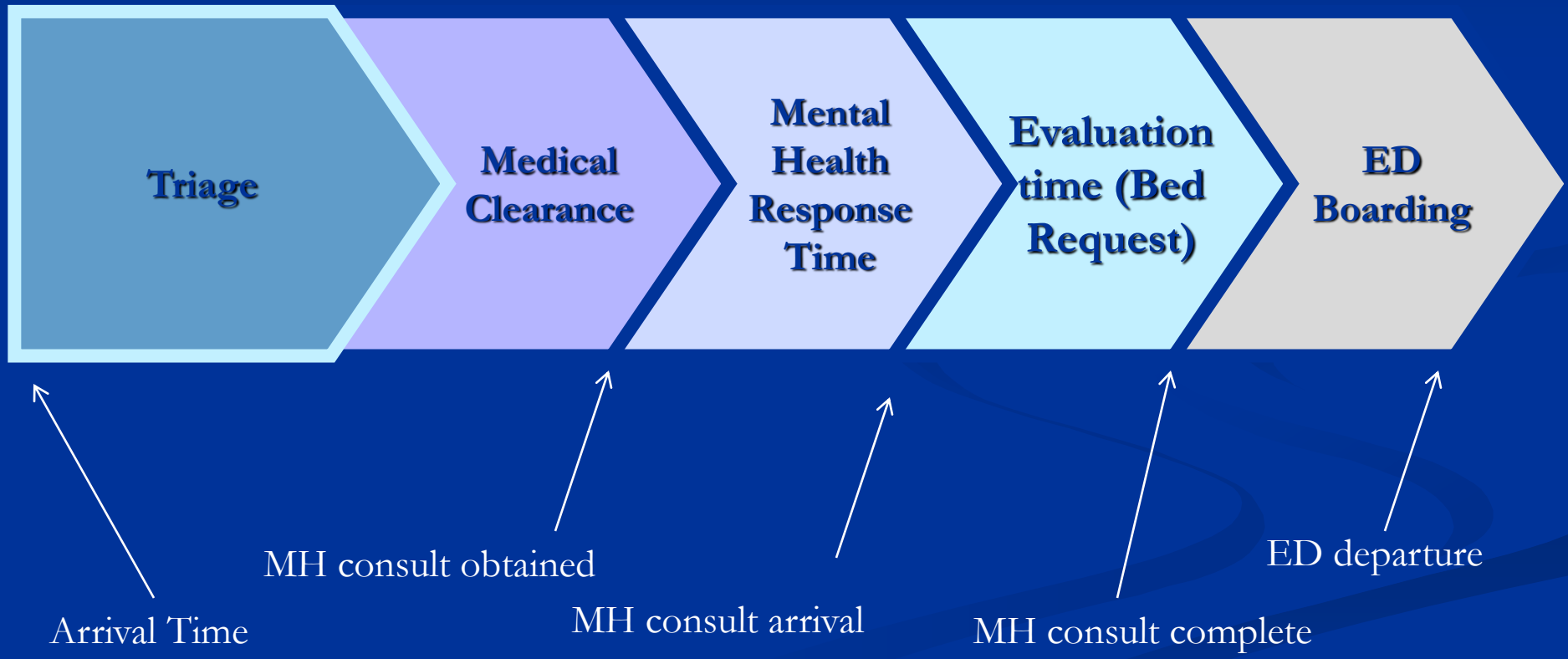
Summary of Results



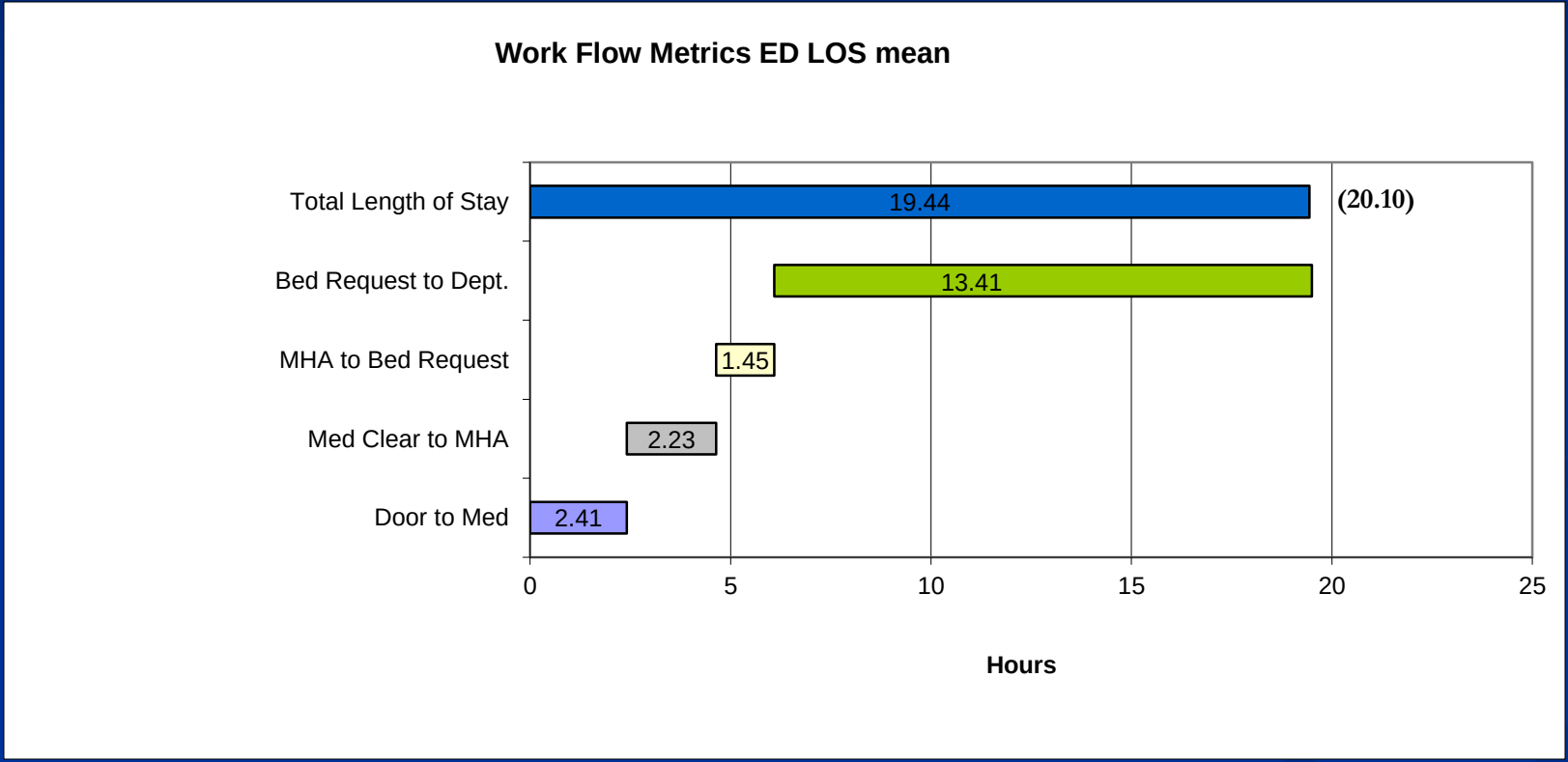
*Note the 25% reduction with pre-arranged bed

Summary of Results

Times between each of the following steps in the patients ED visit were calculated to identify bottlenecks.



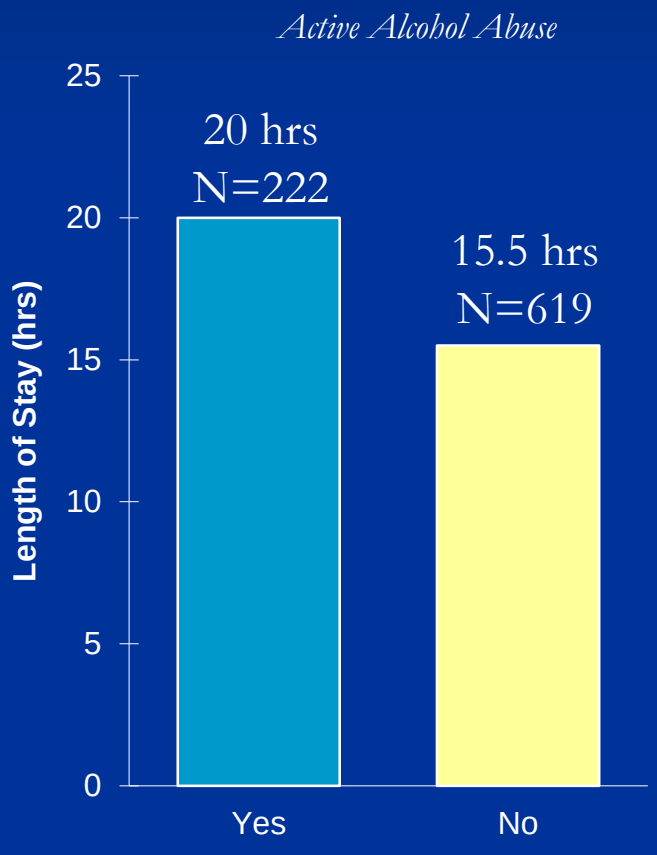
Process Times

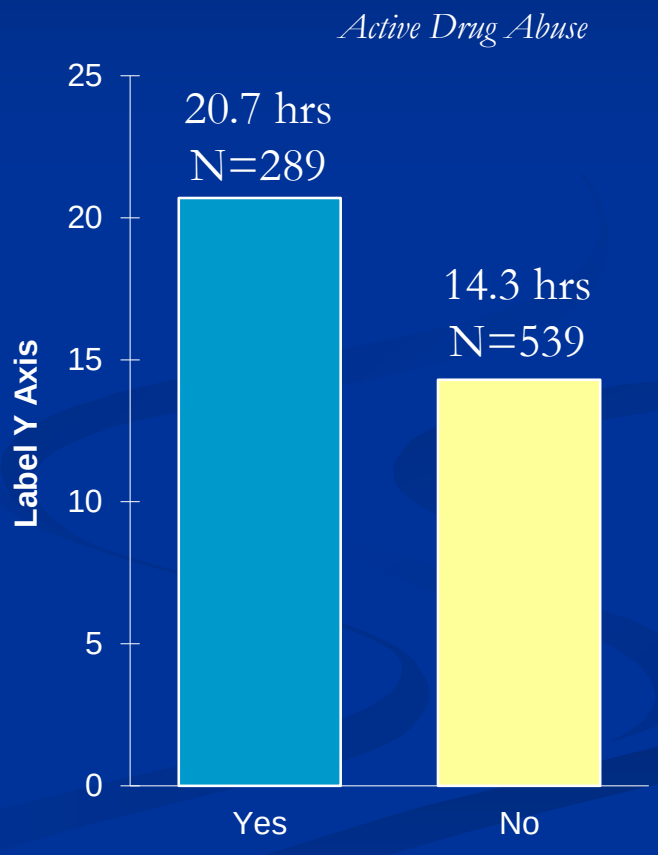


Those patients without pre-arranged beds had mean LOS of 20.1 hours

Dual Diagnoses

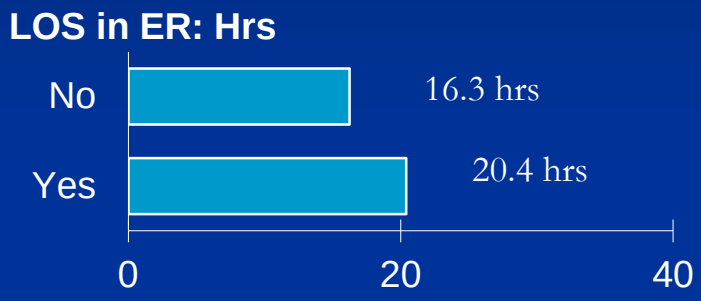
Active alcohol and drug abuse prolong ED length stay



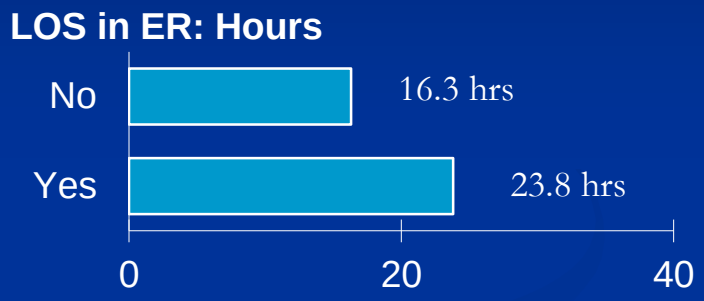


Mean LOS Social Complexities

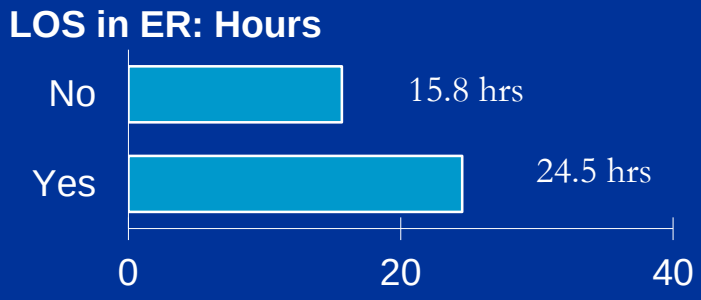
Aggression



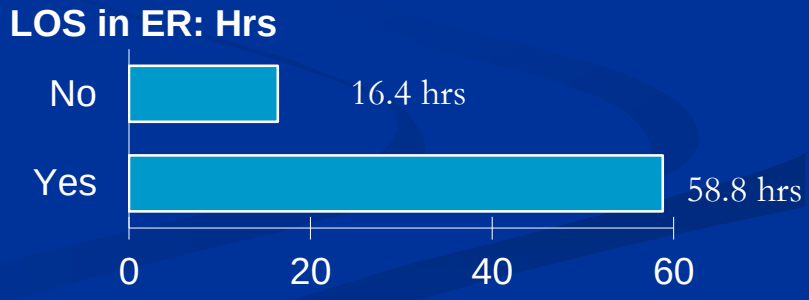
Incarceration



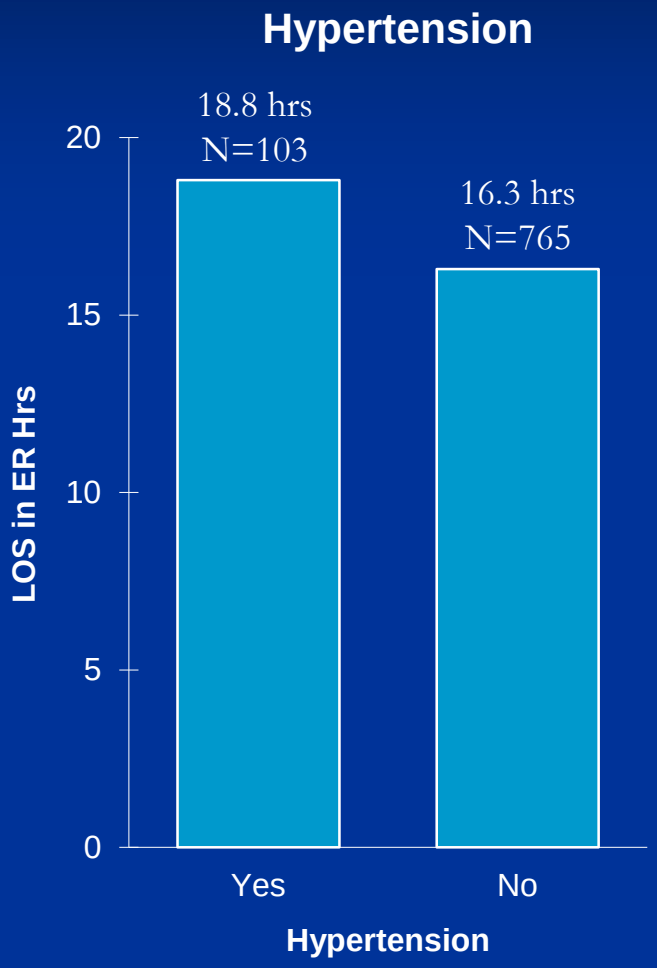
Previous Psych Admission

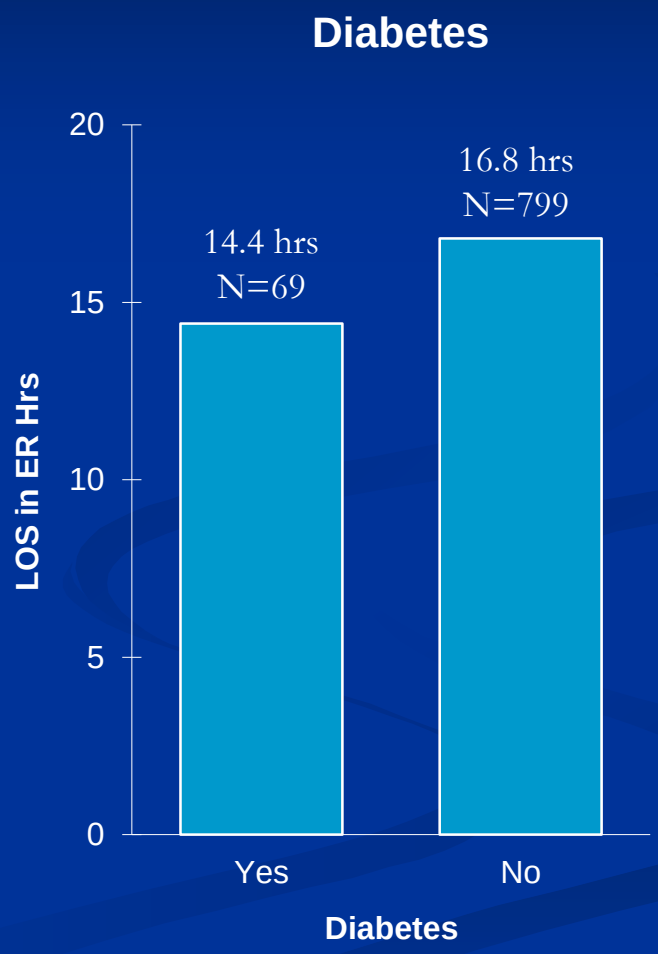


Sexual Offender

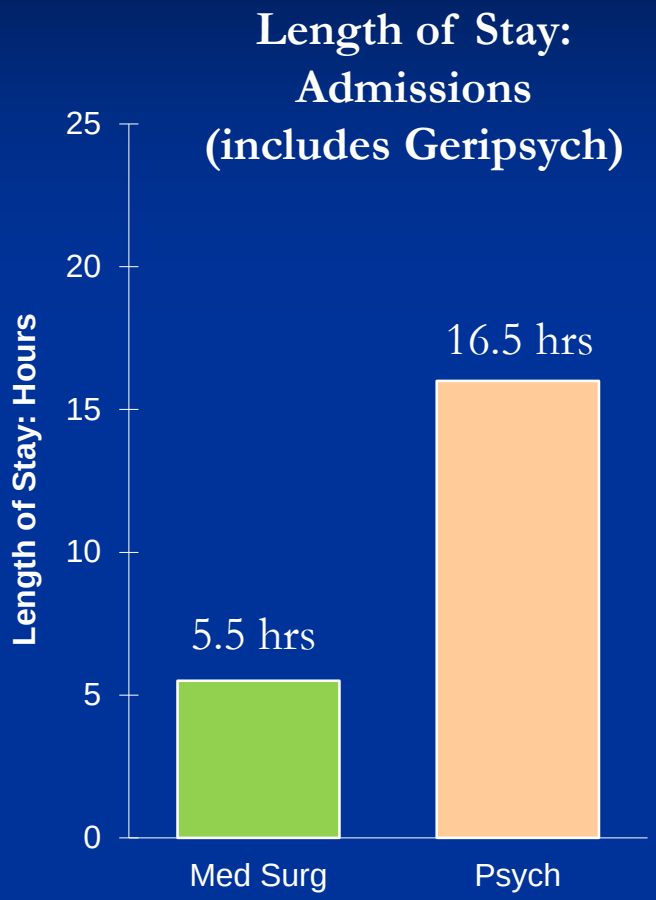


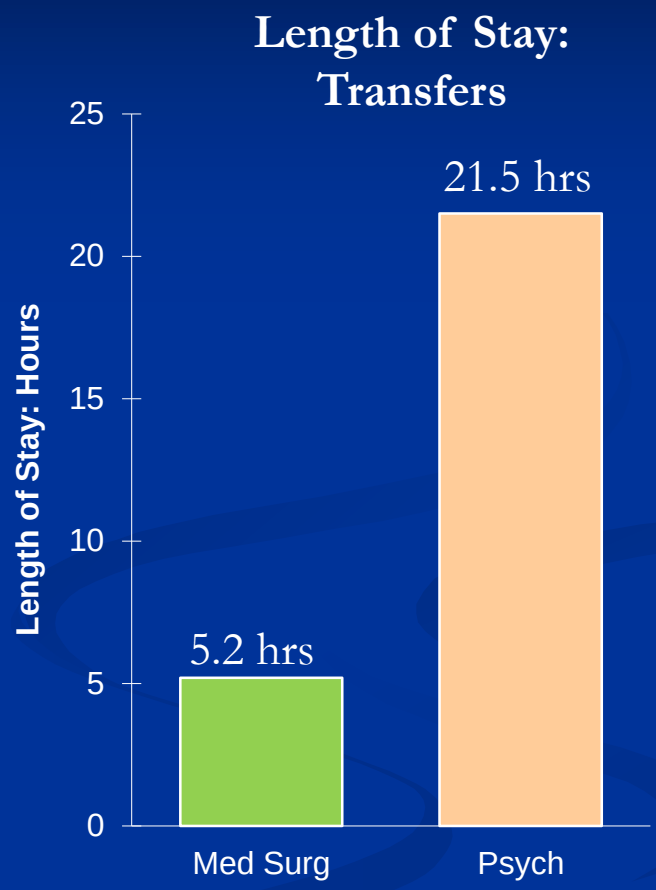
Mean LOS Medical Comorbidities





Parity?


Length of Stay: Admissions (includes Geripsych)
Length of Stay: Hours
25
20
15
10
5
0
5.5 hrs
16.5 hrs
Med Surg
Psych


Length of Stay: Transfers
Length of Stay: Hours
25
20
15
10
5
0
5.2 hrs
21.5 hrs
Med Surg
Psych

Other tidbits

- NO significant differences between Boarding times and LOS as related to all clinical/social variables studied
- Age weakly associated with slightly increased LOS, until age > 65 then lower LOS
- Lab tests performed 85% pts; had significantly longer LOS (17h vs 11h)
- Adjustment and Anxiety D/O: lowest LOS of all Dx (mood, psychoses, substance)
- 98% required close observation (~13,000 hours)
- 2% required physical restraints (long LOS)
- Pregnant patients: shorter LOS (Low 'n')

Challenges/Opportunities

- MH boarders not blind to insurance (!)
- MH is primarily a banker's week system: in/outpt
- Certain difficult to place pt profiles (medical co morbidities, dual diagnosis, recidivists, incarcerated, homelessness, aggression (+/-)
  - High acuity/'specialing' units desirable
- Lack of parity (Prior authorization)