



College of Public Health and Human Sciences

Emergency Department Boarding of Psychiatric Patients in Oregon

Jangho Yoon, PhD, Jeff Luck, PhD

April 25, 2017



Scope

- Quantify the extent of psychiatric emergency department (ED) boarding in Oregon
- Identify contributors of ED boarding
- Identify potential solutions

Methods

- Analyses of quantitative databases
- Interviews with mental health experts and key stakeholders

Analysis of Quantitative Data Sources

Topics

- Extent of psychiatric ED boarding in Oregon
- Recent trend in psychiatric ED boarding in Oregon
- Determinants of psychiatric ED boarding in Oregon

Data Sources

Hospital discharge
(564,151 ED visits)



**Emergency Department
Information Exchange (EDIE)**
(539,923 ED visits)



Medicaid
(391,479 ED visits)

- Oregon Association of Hospital and Health System (OAHHS) performed data linkage.
- Linked data set contained 690,245 unique hospital ED visits (290,181 unique patients), 10/2014 – 9/2015

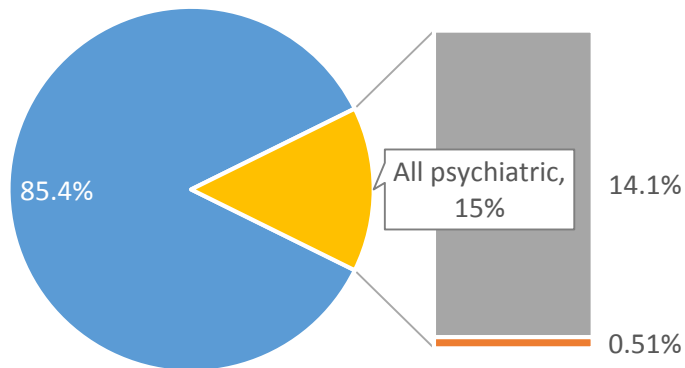
Definitions

- ED boarding
 - ED stay longer than 6 hours
 - ED stay longer than 24 hours
- Psychiatric visit
 - ICD-9-CM and CPT codes
 - Severe vs. non-severe
- Psychiatric ED boarding
 - Boarded psychiatric ED visit (6 hours and 24 hours)

Rate of Psychiatric ED Boarding in Oregon (1)

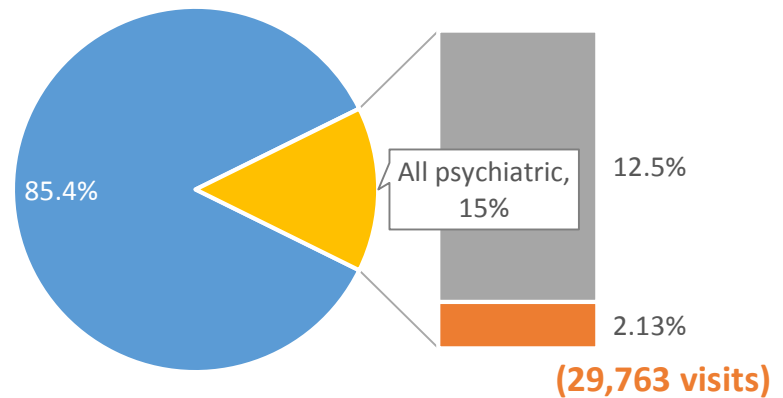
N = 690,245 unique ED visits, 10/2014 – 9/2015

24-hour definition



■ Non-psychiatric ■ Psychiatric, not boarded ■ Psychiatric, boarded

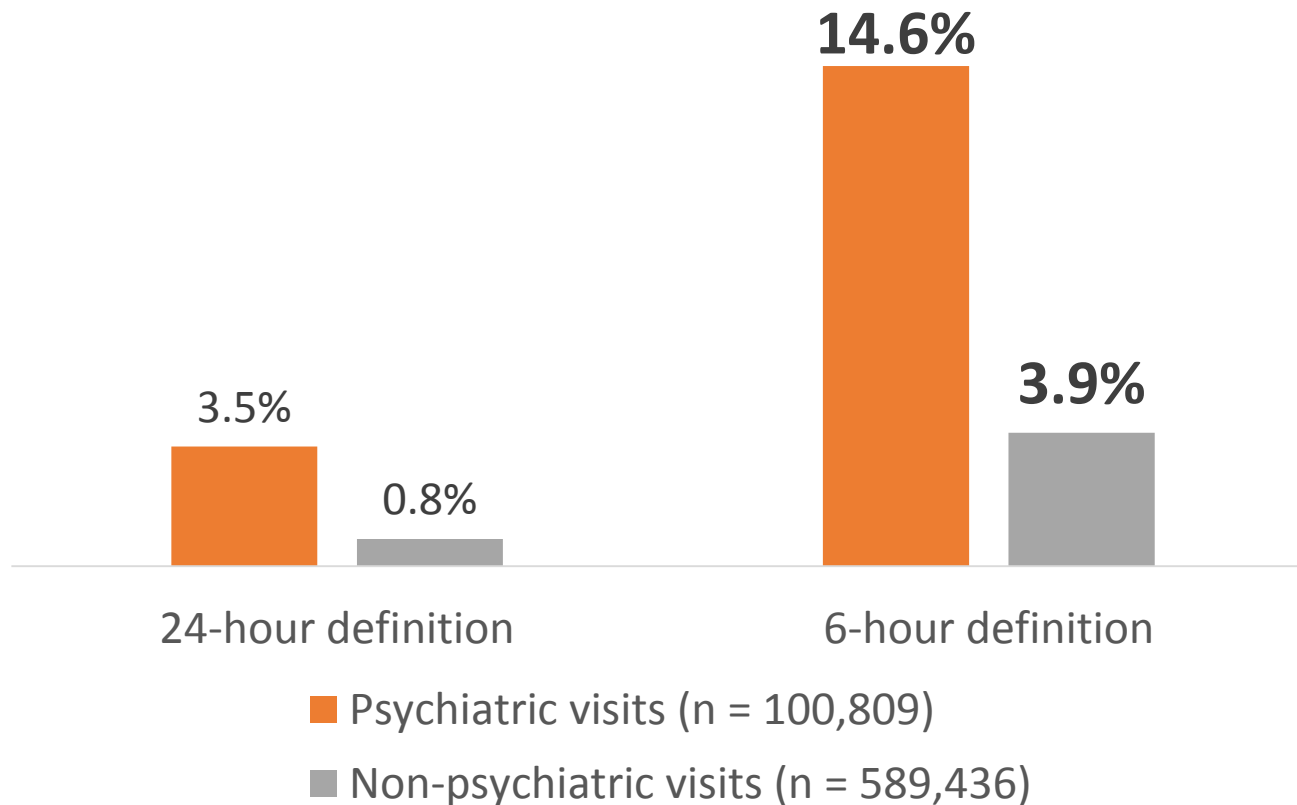
6-hour definition



■ Non-psychiatric ■ Psychiatric, not boarded ■ Psychiatric, boarded

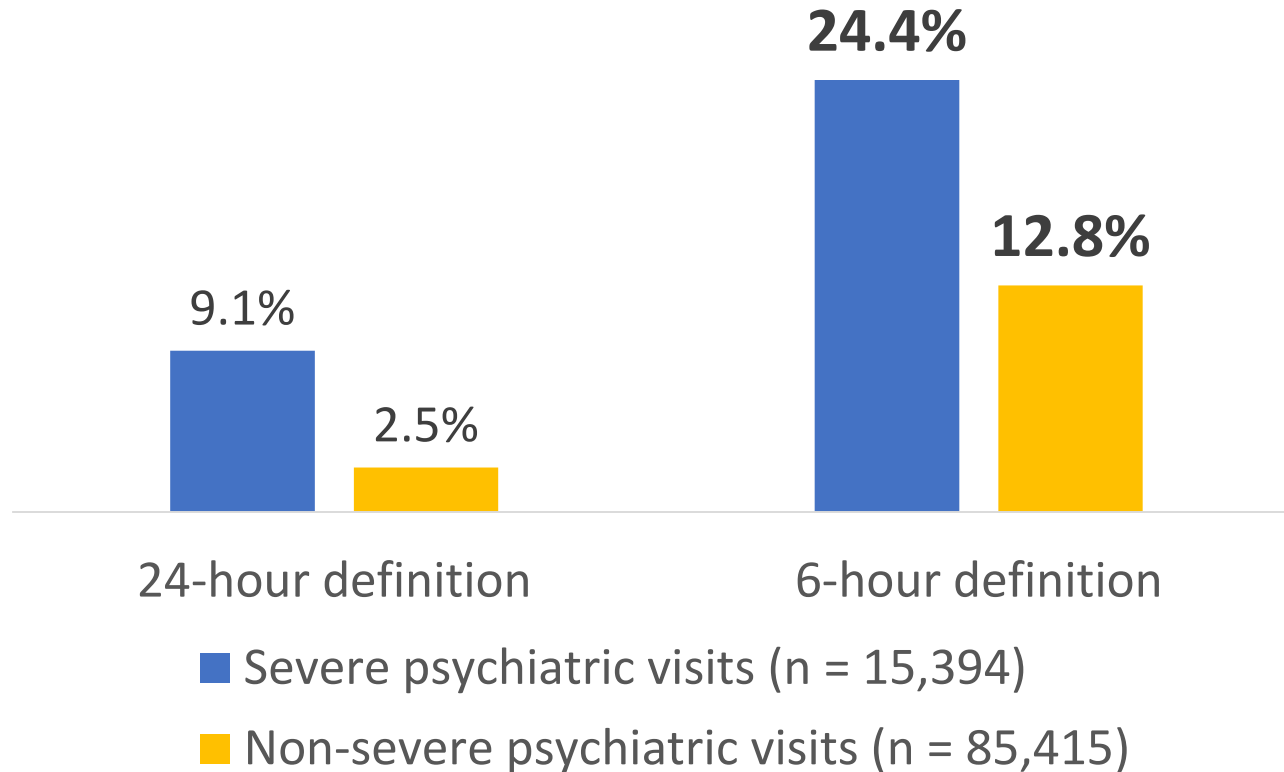
Rate of Psychiatric ED Boarding in Oregon (2)

- Boarding incidence: Psychiatric vs. non-psychiatric



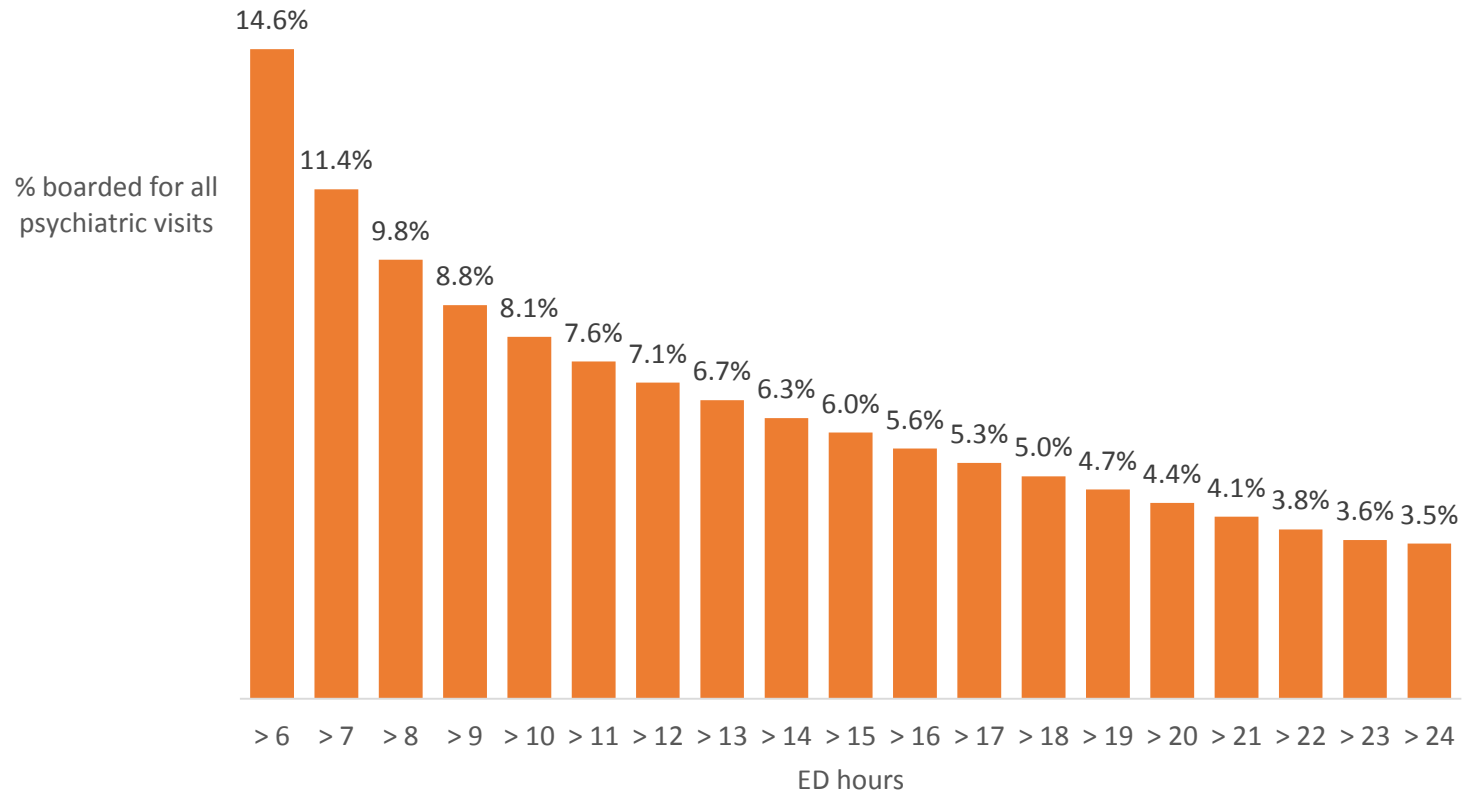
Rate of Psychiatric ED Boarding in Oregon (3)

- Boarding incidence: Severe vs. non-severe psychiatric condition

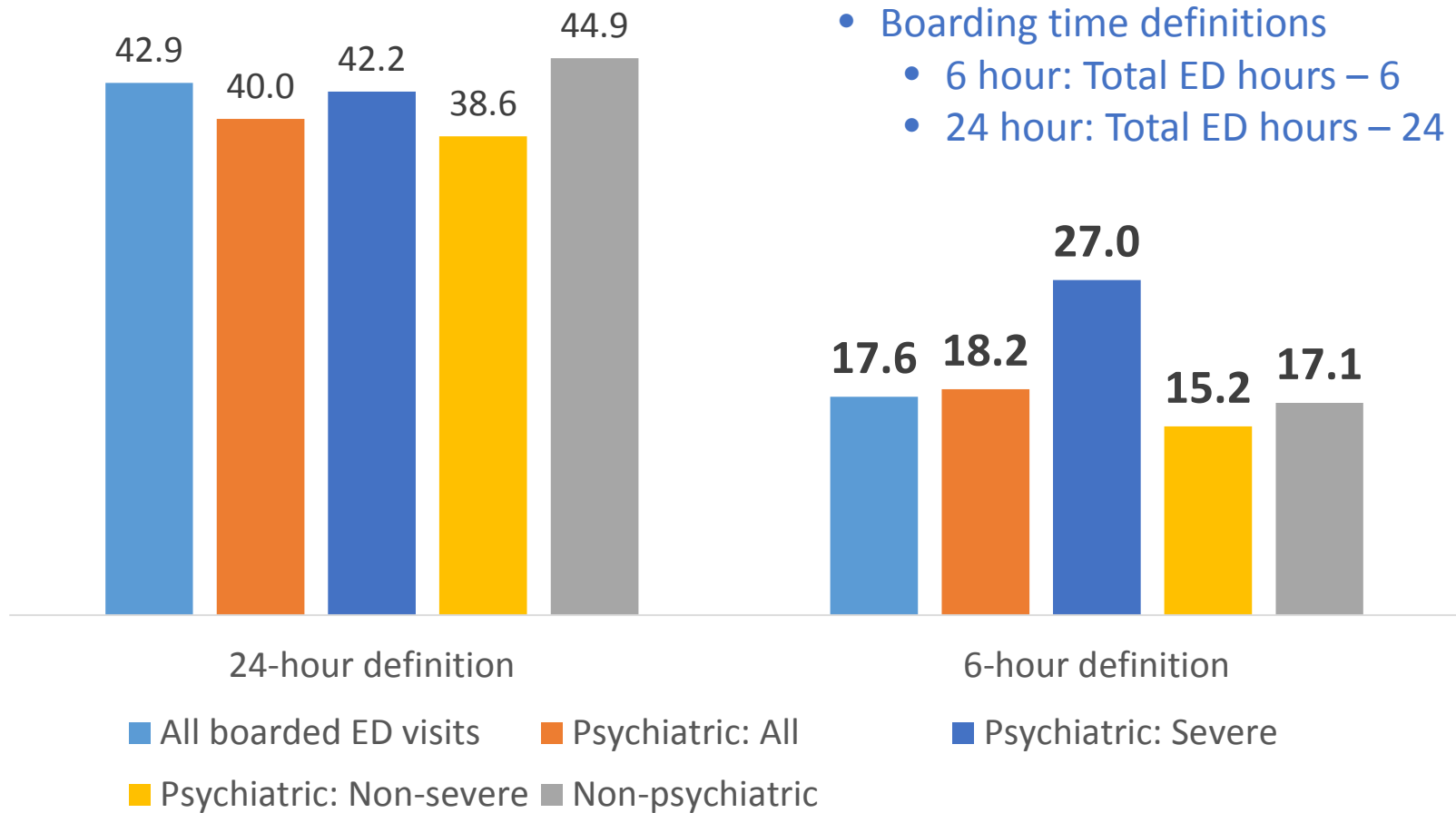


Rate of Psychiatric ED Boarding in Oregon (4)

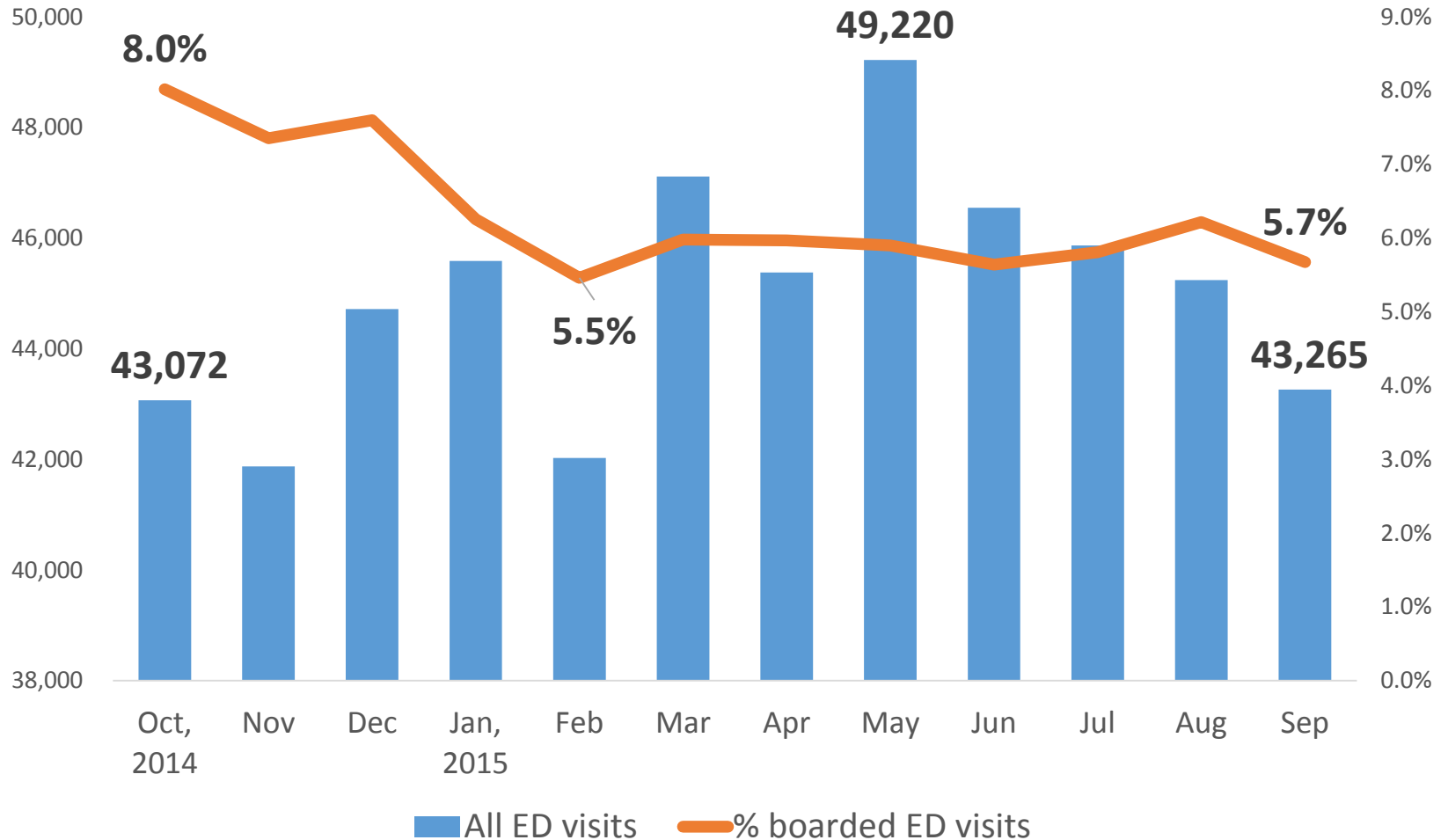
- Different cutoffs for boarding definition: 6 – 24 hours



Average Boarding Time in Hours

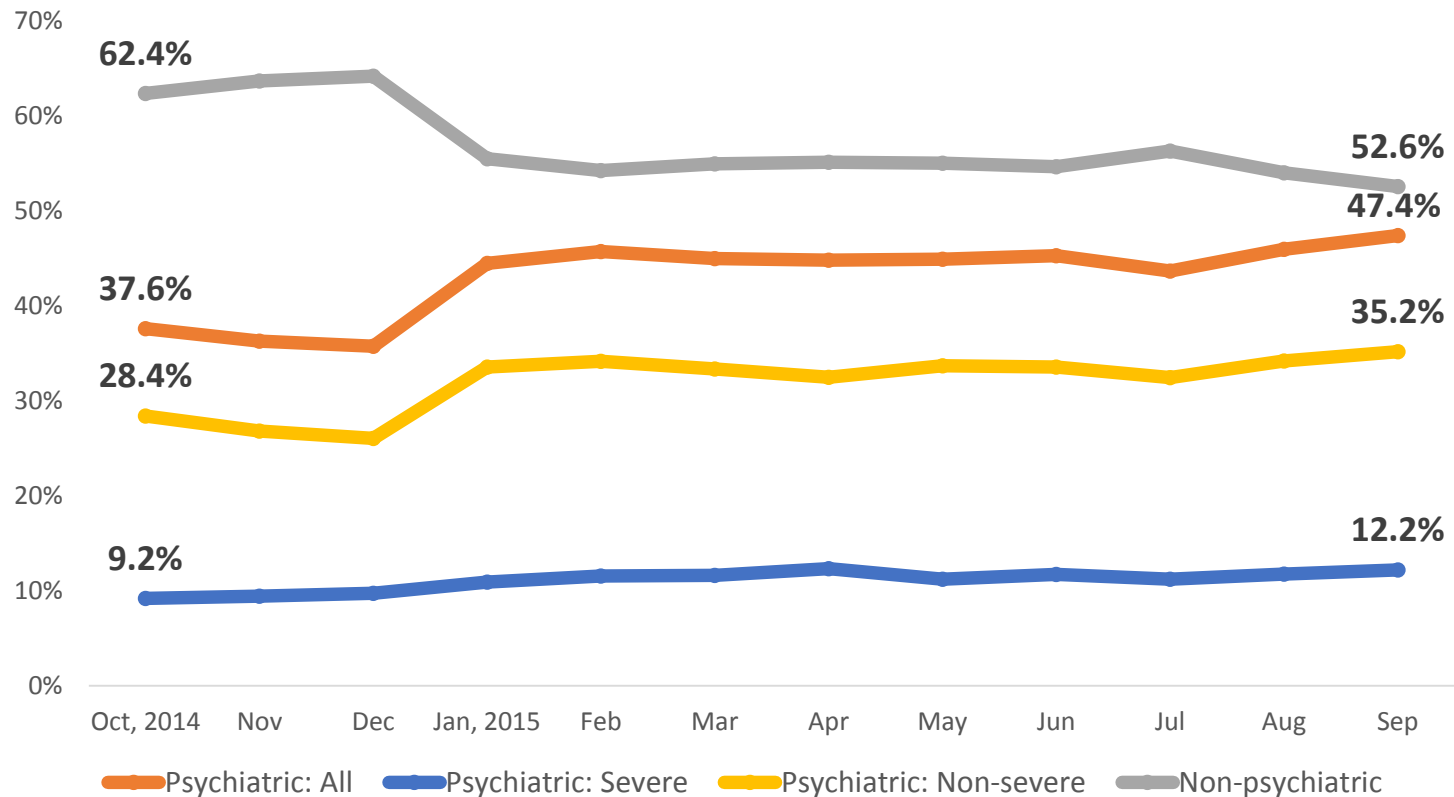


Trend in Psychiatric ED Boarding in Oregon (1)



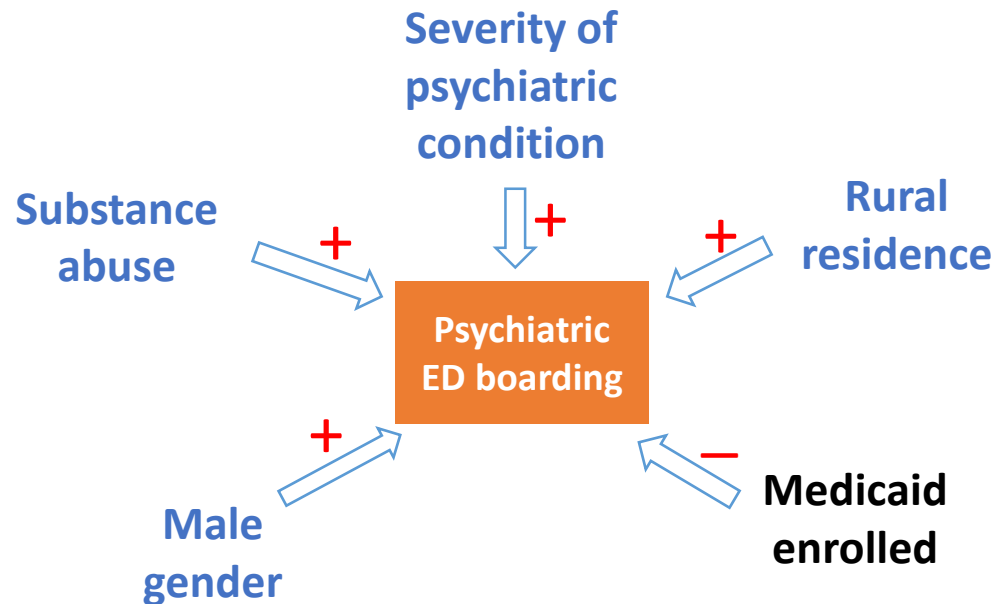
Trend in Psychiatric ED Boarding in Oregon (2)

- Psychiatric vs. non-psychiatric



Determinants of Psychiatric ED Boarding (1)

- Person-level factors



Determinants of Psychiatric ED Boarding (2)

- Person-level factors (cont'd)
 - Severe psychiatric visits more likely to be boarded by 16 percentage points.
 - 10 hours longer boarding time for severe psychiatric visits.
 - Medicaid enrollment reduced boarding time by 2.7 hours.

Determinants of Psychiatric ED Boarding (3)

- System-level factors



- Measures of county-level mental health resources
 - Community mental health: Ratio of patients served by ACTs to persons with SMI
 - Inpatient: Ratio of psychiatric inpatients to persons with SMI

Determinants of Psychiatric ED Boarding (4)

- System-level factors (cont'd)
 - More mental health resources reduce psychiatric ED visits.

1% increase in	Change in psychiatric ED visits
Intensive community mental health resources	12% decrease
Psychiatric inpatient resources	9% decrease

- Psychiatric conditions increase ED boarding
 - Compared to non-psychiatric visits, psychiatric visits:
 - Led to two-fold increase in ED boarding probability
 - Increased boarding time by 5 more hours

Stakeholder Perspective on Psychiatric ED Boarding in Oregon

OSU interviewed knowledgeable stakeholders about emergency department boarding of psychiatric patients

31 stakeholders, from all regions of Oregon, were interviewed during January & February 2016 about:

- Causes and impacts of psychiatric boarding
- Potential solutions

Stakeholders represented a variety of organizations:

- Hospitals and Emergency Departments
 - Administrators and clinicians
- Community mental health programs
- County mental health departments
- Advocacy organizations
- Coordinated Care Organizations
- OHA staff

Causes of Psychiatric Boarding: Preventing ED Visits

Limited outpatient treatment capacity

- Long wait times to see behavioral health providers
- Insufficient capacity in community-based treatment programs, e.g, ACT or intensive case management, in some counties
- Limited availability of stable housing for persons with mental illness

Limited or underutilized alternatives to EDs

- Insufficient capacity of crisis response centers or mobile teams in some counties
- Limited number of psychiatric emergency centers
 - Unity center opened recently in Portland
- Limited awareness of alternatives among providers or law enforcement

Causes of Psychiatric Boarding: Post-ED Care

Challenges in discharging ED patient to community settings

- Limited availability of slots in community residential or treatment settings
 - Especially on weekends or for persons with comorbidities
- Limited training or time for ED staff to identify appropriate community destinations

Inadequate capacity in more intensive treatment settings

- OSH is backlogged with .370 population
- Sub-acute facilities (non-hospital units with 24/7 treatment) are in short supply and not reimbursed by all payers
- Detoxification treatment capacity is very limited, especially in rural areas

Impacts of Psychiatric Boarding

ED boarding of psychiatric patients is very stressful for patients and their caregivers

- ED is not a clinically appropriate setting to treat mental illness

Boarding is also stressful for ED staff and disrupts ED operations

Potential Solutions to Psychiatric Boarding

- Expand capacity of specific services, including:
 - Community treatment programs
 - Sub-acute facilities
 - Programs to assist persons discharged from inpatient care or OSH
 - Supportive services, including housing and substance abuse treatment
- Manage more .370 patients in community settings to reduce backlog at OSH
- Monitor effectiveness of new psychiatric emergency centers
- Improve the ED environment for psychiatric patients
 - e.g., peer support, dedicated space
- Explore opportunities to improve reimbursement for non-hospital services

Conclusions from Stakeholder Interviews

- Perspectives of Oregon stakeholders were consistent with statistical analyses and published research literature
- Causes of ED boarding are multifaceted
- Solutions should focus on expanding capacity of programs that prevent psychiatric ED visits and facilities that provide appropriate care after ED discharge
 - Adding more inpatient psychiatric beds is not the best solution
- If the Affordable Care Act were repealed, reductions in OHP enrollment would likely exacerbate the psychiatric boarding problem