

# Surgical Care For the Homeless:

## Disparities in Outcomes for Access-Sensitive Conditions

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### BACKGROUND

- Little is known about access to surgical care among people experiencing homelessness
- Access-sensitive surgical conditions are preferably operated on in a planned, elective setting

Poor access to care can lead to:

- Delayed presentation
- Symptom progression
- Need for unplanned emergent surgery

*Prevalence of surgery and rates of unplanned surgery are indicators of access to care among vulnerable populations.*

### RESEARCH OBJECTIVES

1. Compare unplanned surgery rates for access-sensitive conditions between people experiencing homelessness and housed patients.
2. Evaluate associations between housing status and postoperative morbidity and mortality

### METHODS

**Data Source:** Healthcare Cost and Utilization Project (HCUP) State Inpatient Database 2016-2017

**Patients:** People who underwent colectomy, ventral hernia repair, or AAA repair in Florida, New York, or Massachusetts

*People experiencing homelessness identified by HCUP's "Homeless" variable or ICD-10 code Z59*

#### Outcomes:

1. Unplanned surgery for access-sensitive conditions
2. Risk-adjusted morbidity and mortality

#### Analysis:

- Multivariable regression models controlling for patient and hospital factors
- Estimated the marginal effect of unplanned surgery on morbidity

People experiencing homelessness had significantly higher odds of undergoing unplanned surgery, likely due to **poor access to surgical care.**

**Worse postoperative outcomes** are partly attributable to higher rates of unplanned surgery.

But disparities after elective surgery suggest **additional vulnerabilities also play a role.**

**Policies to facilitate equitable access to safe, elective surgery** may mitigate differences in rates of unplanned surgery and **improve postoperative outcomes.**



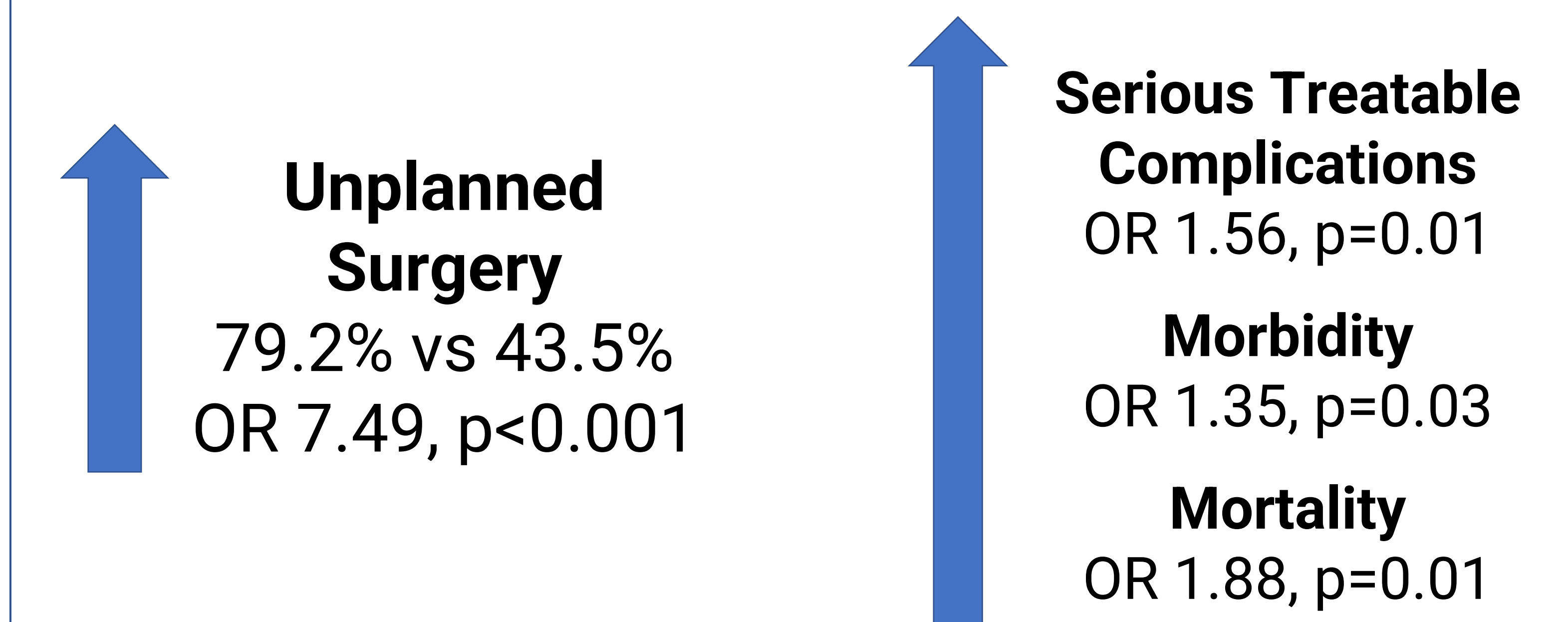
### RESULTS

175,584 patients – **423 (0.2%) people experiencing homelessness** vs 1.5% in total inpatient cohort

**People experiencing homelessness were more often:**

- Male (71% vs 47%,  $p < 0.001$ )
- Black (19% vs 10%,  $p < 0.001$ )
- Uninsured/insured by Medicaid (53% vs 12%,  $p < 0.001$ )
- Alcohol use disorder (29% vs 3%,  $p < 0.001$ )

Compared to housed patients, people experiencing homelessness:

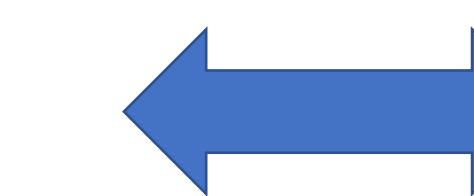


#### UNPLANNED SURGERY

Overall Morbidity: 23.3%

**Homeless vs Housed Morbidity**

26.0% vs 23.3%  
 $p = 0.95$



#### ELECTIVE SURGERY

Overall Morbidity: 9.7%

**Homeless Had Higher Odds of:**

Serious Treatable Complications  
OR 3.63,  $p < 0.001$

Morbidity  
OR 2.10,  $p = 0.01$

Among people experiencing homelessness, the **mean marginal effect of unplanned surgery** on odds of morbidity was 12.9% ( $p < 0.001$ ).