# THE ROLE OF HOUSING INSECURITY ON OUTCOMES FOLLOWING TRAUMATIC INJURY

VERA L, MD; BUSBY S, MD; DEYAMPERT L, CCRP; WOODARD J, MPH; CORTES J, CCRP; REED K; WILLIAMS K, MD; CASTATER C, MD, MBA; SCHENKER LM, MD; SMITH RN, MD, MPH



# HOUSING INSECURITY?

- HHS: high housing costs in proportion to income, poor housing quality, unstable neighborhoods, overcrowding, or homelessness.
- 560,000+ homeless people in a given night
- 20% of households are deemed insecure
- Shared risk factors with those for physical trauma



### **OBJECTIVE**

- Primary:
  - determine the role of housing insecurity on outcomes following traumatic injury.
- Secondary:
  - Compare risk factors for trauma and housing insecurity



#### **METHODS**

- Prospective cohort study
  - Sept 2019-March 2020
- Urban Level I trauma Center
- SDOH survey
- "Was there ever a time you didn't have your own place to stay, were homeless, or stayed in a shelter?"



- I 16 study participants
  - 5 missing data- excluded
- 42/111 (37.8%) reported housing insecurity
  - Median age (43.6, IQR 21-66)
  - 68% black
  - 73.8% male
- Housing insecure vs. secure: No difference in demographics



Variable	Housing Insecure (n = 42)	Housing secure (n = 69)	P-Value
Penetrating Injury	14 (34.1%)	10 (14.5%)	0.030
Illicit Drug Use	26 (63.4%)	19 (27.9%)	<0.001
H.O Addiction	22 (52.4%)	5 (7.2%)	<0.001
H.O. Addiction Tx	14 (33.3%)	2 (2.9%)	<0.001
Food Insecurity	23 (60.5%)	10 (15.2%)	<0.001



- Housing insecure patients:
  - Higher # of Mental illness diagnoses, p-value = 0.005

Variable	Housing Insecure (n = 42)	Housing secure (n = 69)	P-Value
5-6 PTSD Sx	14 (50%)	4 (11.4%)	0.004
Suicide attempted	10 (25%)	4 (5.8%)	0.006
Sx of Depression	21 (52.5%)	19 (27.5%)	0.013



- Housing insecure patients:
  - Less educated, p-value 0.030

Degree	Housing insecure (n = 42)	Housing secure (n = 69)
None	11 (26.2%)	7 (10.3%)
High School	9 (21.4%)	28 (41.2%)
GED	7 (16.7%)	3 (4.4%)
Masters/Doctorate	0 (0.0%)	4 (5.9%)



- Housing insecure patients:
  - Higher ACE score (p-value = 0.012)

ACE Score	Housing Insecure (n = 42)	Housing Secure (n = 69)
0	6 (15.8%)	21 (31.8%)
ı	4 (10.5%)	18 (27.3%)
2	5 (13.2%)	8 (12.1%)
3	5 (13.2%)	7 (10.6%)
>4	18 (47.4%)	12 (18.2%)



#### CONCLUSION

- No difference in LOS (14.6 +/- 10.2 vs. 11 +/- 7.7, p = 0.389)
- Low power and confounding factors
- Length of follow up; increase outcome variables



#### CONCLUSION

- Difficult to ascertain a cause-effect relationship
- Housing insecurity may be a modifiable risk factor for trauma
- Housing insecurity screening of trauma patients
- Housing as prevention strategy

