

Introduction

- Persons who inject drugs (PWID) have frequent skin and soft tissue infections (SSTIs) and high healthcare utilization
- It is thought that PWID have an inflection point that causes an acceleration in their disease course which leads to increased healthcare utilization – termed a ‘sentinel event’

Objective

- We sought to examine whether injection drug use (IDU)-related SSTIs serve as sentinel events and whether they may present an important opportunity for intervention

Methods

- Retrospective manual chart review
- 305 adults with an emergency department (ED) visit or hospital admission due to an IDU-related SSTI (i.e. “qualifying event”) between 10/1/2015 and 6/1/2019
- Compared number of encounters in 12 months before and after SSTI
- Data collected:
 - Demographics
 - Microbiologic Data
 - Addiction service consultation
 - Treatment with medications for opioid use disorder (MOUD)

Results

Table 1: Demographics

Characteristics	N (%)
Sex	
Male	203 (66.6)
Female	102 (33.4)
Age	
Median at QE = 41	
Currently experiencing homelessness	
Yes	257 (84.5)
No	47 (15.5)
Insurance Type	
Medicare	24 (7.9)
Private	16 (5.3)
Medicaid	265 (86.8)
Hospital Admission (at time of QE)	
Yes	170 (55.7)
No	135 (44.3)
MOUD	
Methadone	84 (29.9)
Buprenorphine-Naloxone	43 (15.3)
None	152 (54)
Addiction Consultation	
Yes	105 (34.4)
No	200 (65.6)

MOUD – Medications for Opioid Use Disorder;
QE – Qualifying Event

Figure 1: Direction of Change in Utilization following Sentinel Event

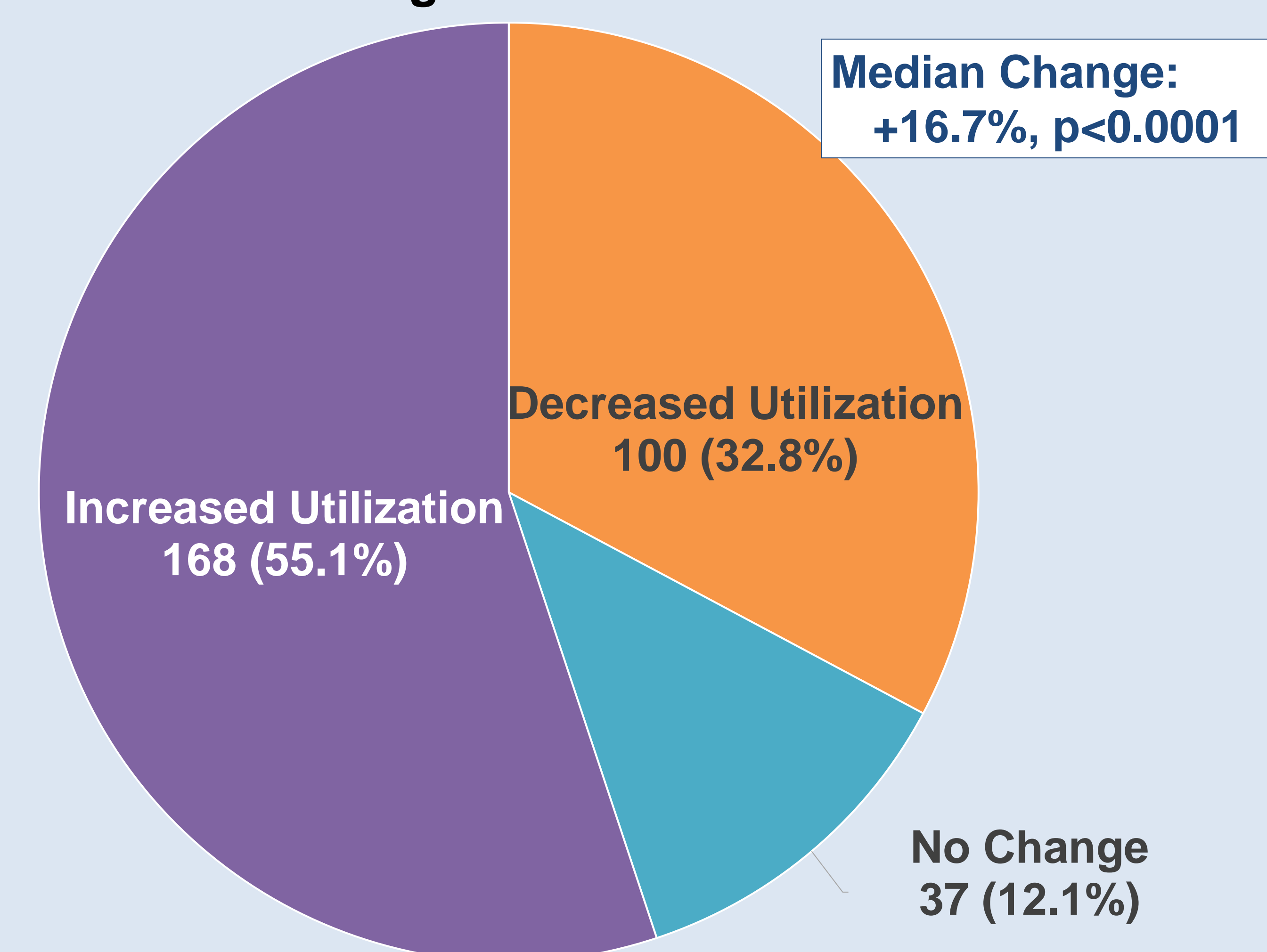


Table 2: Selected Variables and Direction of Change

Variable	Direction of Change in Utilization			P value
	Decreased	No Change	Increased	
	N (%)			
Homeless				
Yes (n = 257)	87 (33.85)	29 (11.28)	141 (54.86)	0.4632
No (n = 47)	13 (27.66)	8 (17.02)	26 (55.32)	
Addiction Consult				
Yes (n = 105)	39 (37.14)	13 (12.38)	53 (50.48)	0.4603
No (n = 200)	61 (30.5)	24 (12)	115 (57.5)	
MOUD				
Yes (n = 130)	45 (34.62)	10 (7.69)	75 (57.69)	0.123
No (n = 175)	55 (31.43)	27 (15.43)	93 (53.14)	

MOUD – Medications for Opioid Use Disorder

Key Findings

- A majority of patients (55.7%) were admitted to the hospital and the remainder were discharged from the ED
- There was a statistically significant change in healthcare utilization in the year prior to the SSTI compared to the year after (median change +16.7%, p < 0.0001)
- It was rare for patients discharged from the ED to have microbiologic data sent (13% vs 87%, p < 0.0001), an addiction consult completed (4% vs 96%, p < 0.0001), or to be discharged on MOUD (8.0% vs 92%, p < 0.0001)
- Despite these differences, there were no significant predictors of high vs low utilization among all-comers based on demographic and clinical data

Conclusions

- IDU-related SSTIs serve as sentinel events with increased healthcare utilization after the episode
- This is a very vulnerable population with exceedingly high rates of homelessness and public insurance usage
- Addiction consultation and initiation of MOUD had no impact on the trajectory of healthcare utilization on the group as a whole

Implications

- Further work must be done to identify how best to improve outcomes for this vulnerable population.