

# Increase in Drug Injectors in Southeast U.S. and in Rural-Suburban Counties among Entrants to Opioid Treatment Programs

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## Aim

In the midst of the continuing opioid abuse epidemic, a major concern is the injection rate among opioid users. Injection can place opioid users at high risk for transmission of blood-borne diseases such as HIV and hepatitis C as well as drug overdose. Although the recent opioid abuse epidemic is well documented, little is known about recent trends in injection behavior and how these trends may vary across different regions of the United States. This study examines this public health concern among a cohort of opioid users enrolling in medication assisted treatment.

## Sample Characteristics (N = 30,213)

### Geographical Factors

US Region	% or Mean (SD)
Northeast	30
Southeast	32
Midwest	22
West	16

### Urbanicity (population density)

Urban (>1M)	61
Suburban/Rural (<= 1M)	39

### Individual Factors

Female 43

### Race/Ethnicity

White	80
Black	7
Hispanic	9

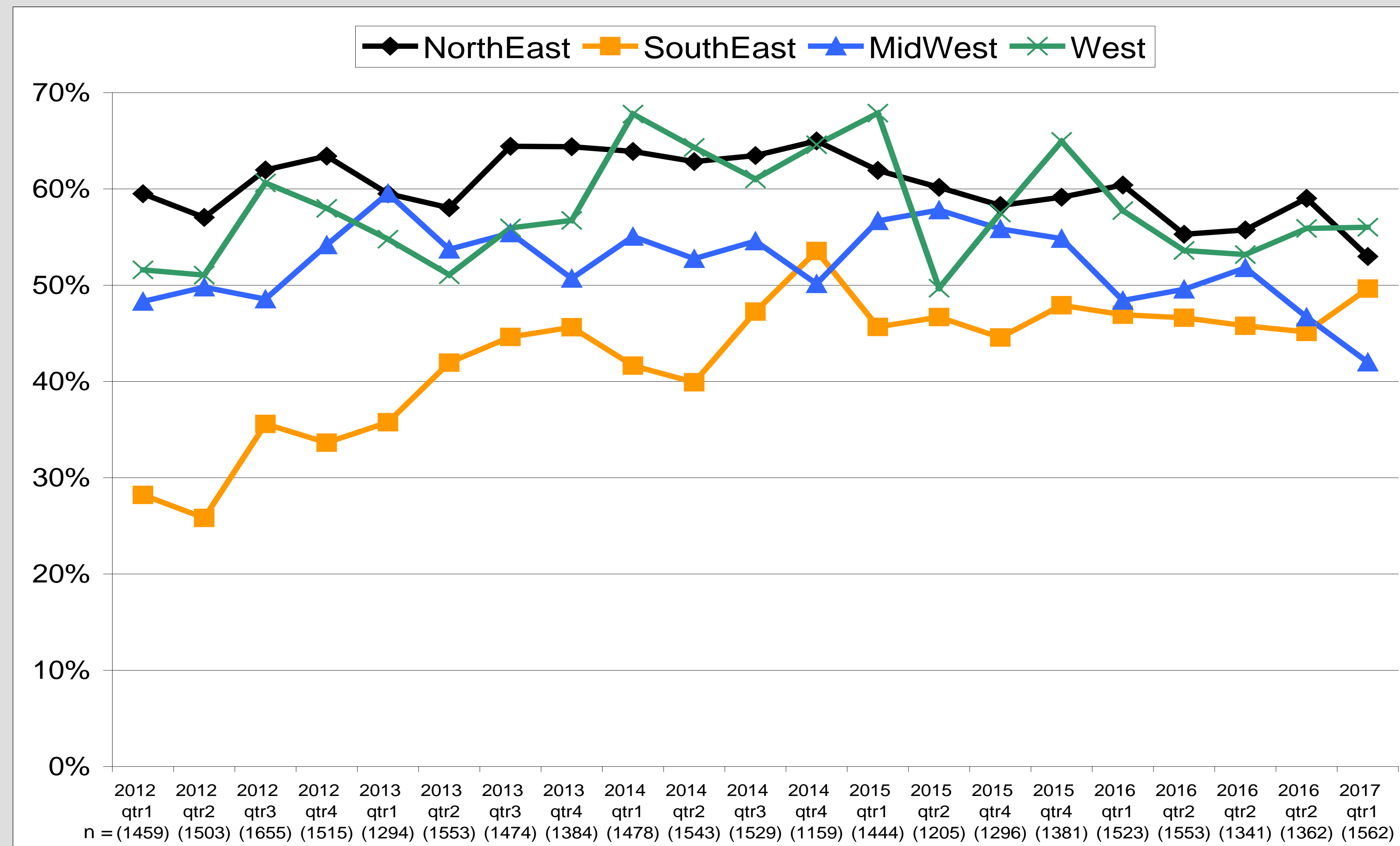
### Age

<=29	37
30 to 43	40
>43	23
Overall	35 (10.6)

## Methods

Newly admitted patients to opioid treatment programs (OTP), in a nationwide prevalence study, completed a one-page self-administered survey of past month heroin and non-medical prescription opioid use. Data were collected from 30,213 patients in 87 OTPs across 33 states for over a five year period (from January 2012 to March 2017). Trends were examined for the entire U.S., for four geographical areas (Northeast, Southeast, Midwest, and West), and for high population density counties (>1,000,000 residents, i.e., urban) and moderate-low population density counties (i.e., suburban-rural).

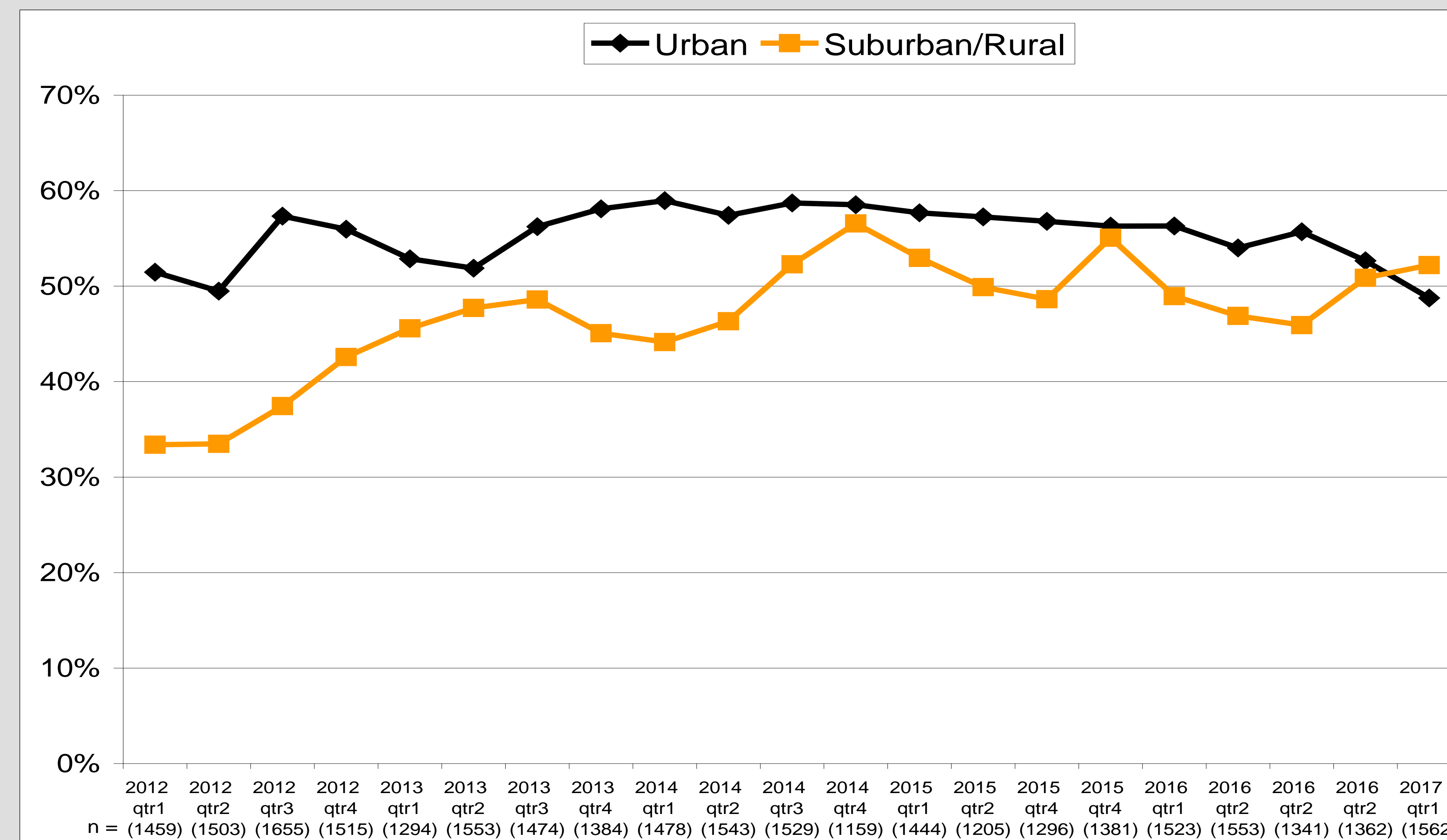
## Opioid Injection Rate by Region



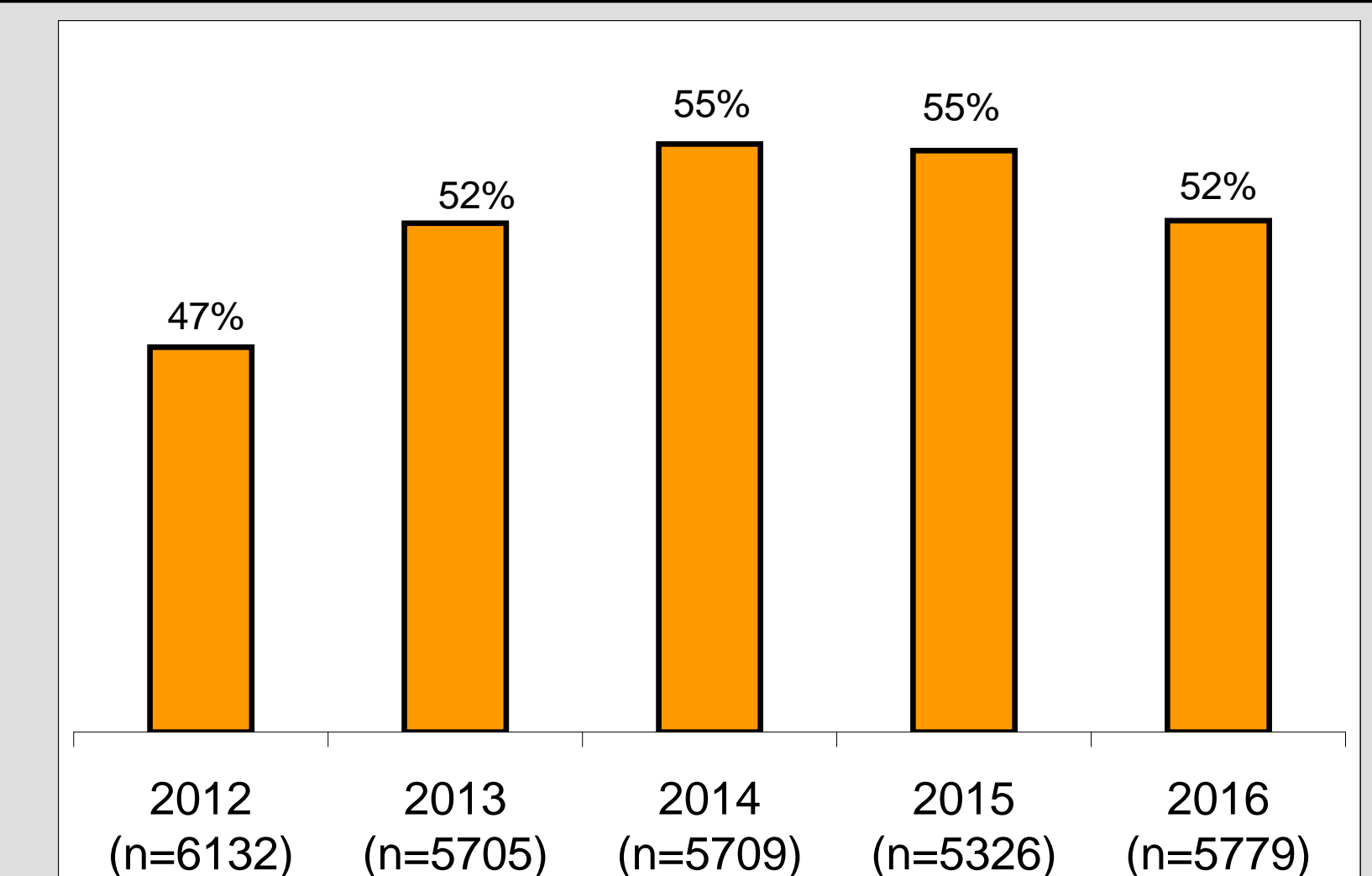
## Results

Northeast trend for injection remained quite stable, hovering around 59%. Injection trends in the West and Midwest showed greater variation, with injection rates ranging from 50% to 68% in the West, and 47% to 60% in the Midwest. Unlike the other three regions, the Southeast showed a steep linear increase from 28% to 45% during the 5-year study period. Examination of trends for the two population density areas, showed a relatively stable trend for opioid injection for urbanicity (55%) and a substantial increase in suburban-rural counties with injection rates increasing from 33% in 2012.q1 to 52% in 2017.q1.

## Opioid Injection Rate by Urbanicity



## Opioid Injection Rate by Year



## Conclusion

Among OTP enrollees, the percent of patients injecting opioids has been increasing in the past 5 years. The increase is especially high in the Southeast and in rural-suburban counties. The trend represents a significant public health concern since injection increases the risk for HCV/HIV transmission as well as overdose.