

Changes in the Prevalence of Methamphetamine Abuse among Individuals Entering Medication-Assisted Treatment Programs for Opioid Use Disorders

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Background

- In 2017, drug overdoses were responsible for more than 70,000 deaths in the United States and have nearly doubled since 2010 [1].
- Findings by Ellis and colleagues [2] suggest that increases in opioid and methamphetamine use are likely not independent.
- This analysis examines changes in the prevalence of methamphetamine use among individuals entering medication-assisted treatment programs for opioid use disorders across Census divisions.

Methodology

- Data from the RADARS® System Opioid Treatment Program were used to assess the change in the prevalence of past month methamphetamine use among individuals entering medication-assisted treatment (MAT) programs for opioid use disorders.
- 38,305 valid surveys from individuals who endorsed past month use of a prescription or illicit opioid “to get high” from treatment facilities that submitted surveys in 4 or more quarters from January 2012 through September 2018 were assessed.
- Respondents were asked if they used “crystal meth” in the past month. To account for within-center correlations, a center-specific random-intercept logistic regression was run. We examined trends from January 2012 through September 2018 to determine if methamphetamine use was increasing and if it was differential across Census division.
- An additional analysis was run examining demographic and other individual-level characteristics associated with methamphetamine use in 2018 using data from 5,529 surveys.

Results

- In 2018, the Pacific division had the highest prevalence (48.1%) of past month methamphetamine use, followed by the Mountain division (45.0%), and the West South Central division (28.0%). The New England division (1.9%), the Mid-Atlantic division (6.1%), and the South Atlantic division (11.5%) had the lowest prevalence.
- Between 2012Q1 and 2018Q3, centers in all but two divisions (New England and Mid-Atlantic) showed statistically significant increases in the within-center prevalence of methamphetamine use. The largest increases were observed among centers in the Mountain division (OR=5.93, 95% CI: 3.99 to 8.83, p<0.001), the Pacific division (OR=3.17, 95% CI: 2.53 to 3.96, p<0.001), and the West North Central division (3.07, 95% CI: 1.48 to 6.39, p=0.003) (Table 1).
- Factors significantly associated with past month methamphetamine use in 2018 were past month injection use of a prescription or illicit opioid (OR=2.8, 95% CI: 2.4-3.2, p<0.001), white ethnicity (OR=1.21, 95% CI: 1.02-1.44, p=0.003), and age (OR=0.99, 95% CI: 0.98-1.00, p=0.001).

Conclusions

- Methamphetamine use is increasing among patients seeking medication-assisted treatment for opioid use disorders except in the Northeast. The magnitudes of these increases are similar to those observed in increases in methamphetamine deaths and greater than those observed in primarily private treatment centers.
- Injection drug use and younger age are statistically significant predictors of past month methamphetamine use at treatment entry.
- Given substantial increases in drug overdose deaths, targeting interventions aimed at reducing polysubstance abuse are needed.

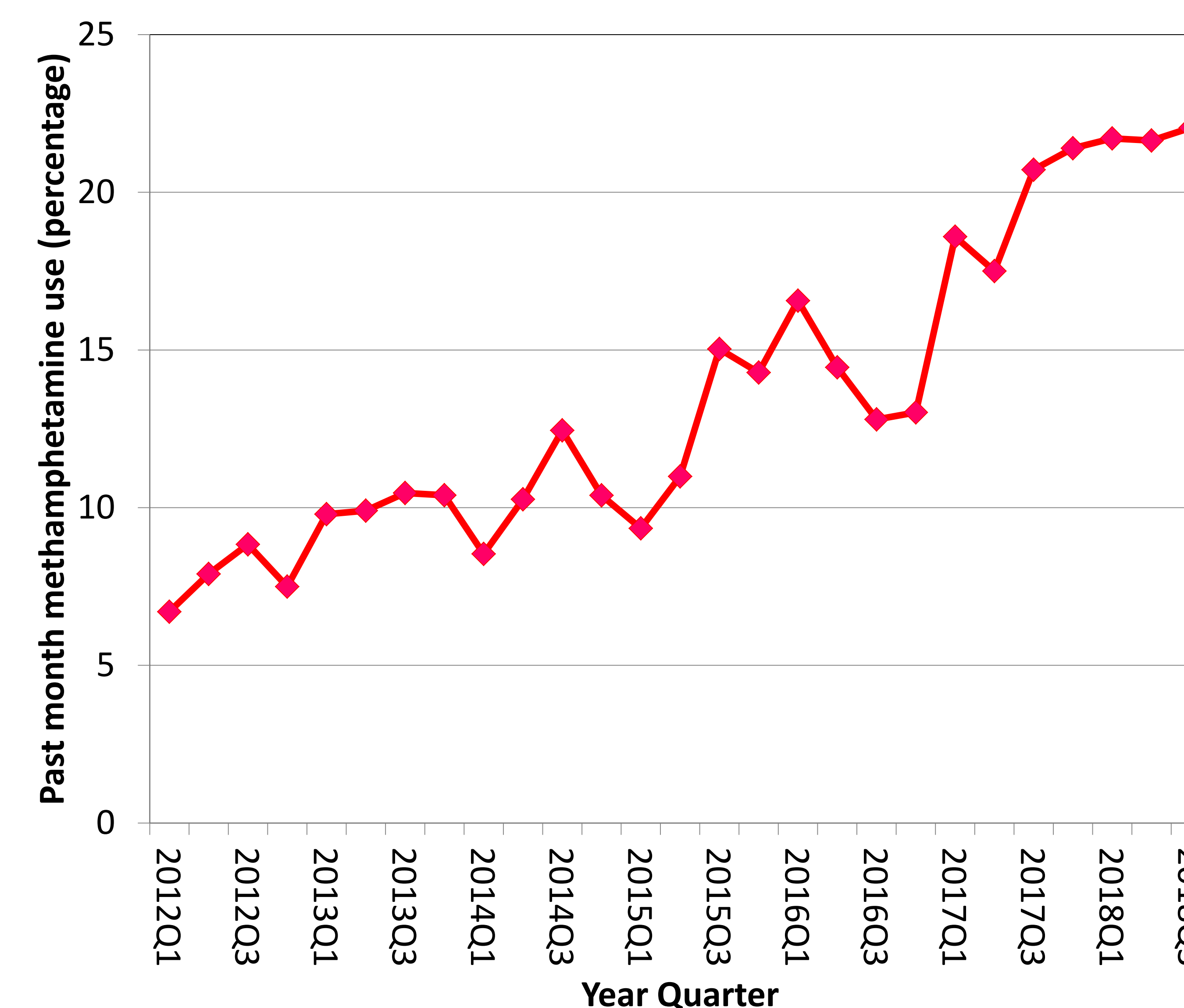
References

- ¹Hedegaard, H., A.M. Minino, and M. Warner, *Drug Overdose Deaths in the United States, 1999-2017*. NCHS Data Brief, 2018(329): p1-8.
- ²M.S. Ellis, Z.A. Kasper, and T.J. Cicero, *Twin epidemics: The surging rise of methamphetamine use in chronic opioid users*. Drug Alcohol Depend, 2018. 193: p. 14-20.

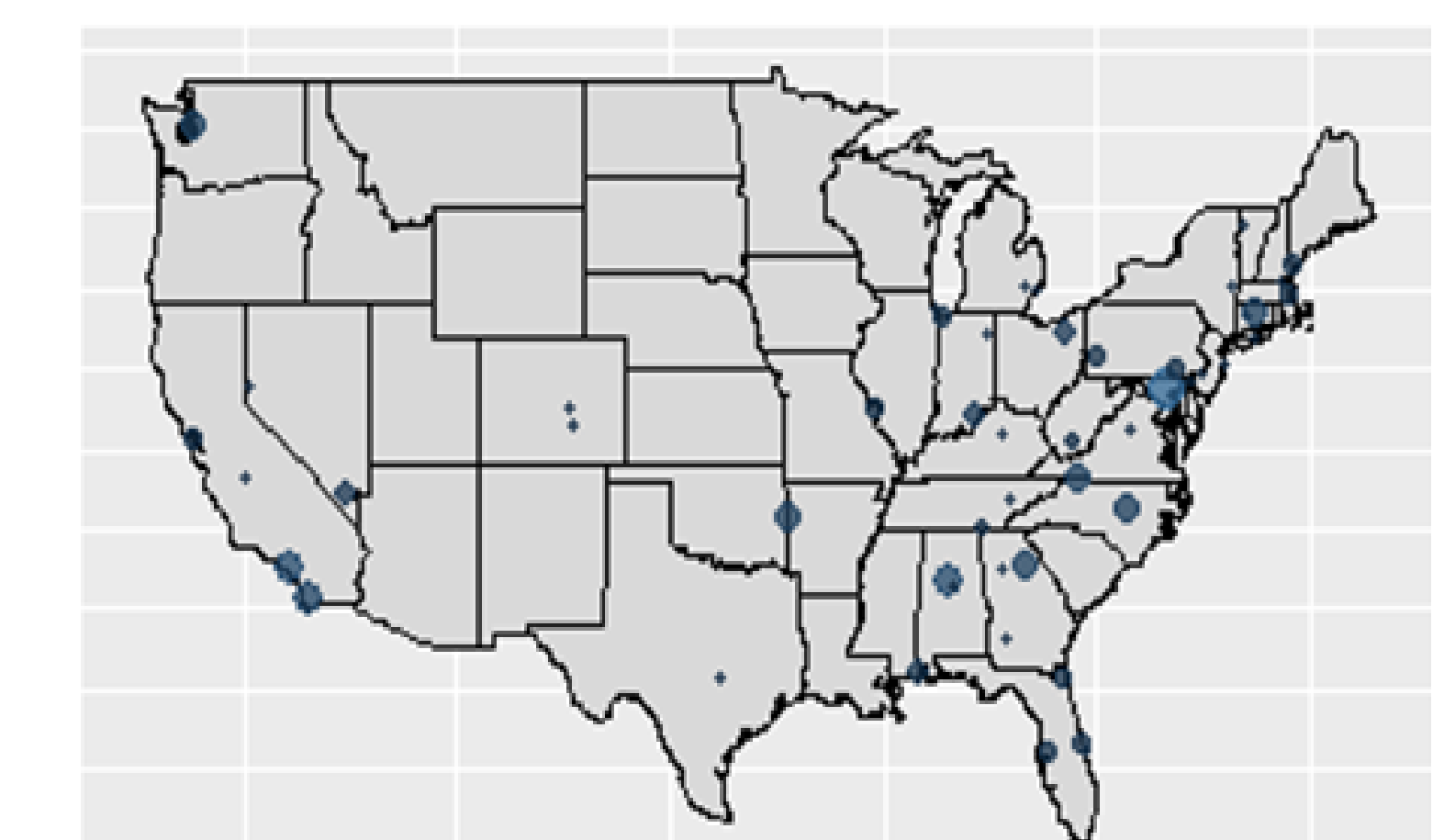
Change in odds of past-month methamphetamine use among individuals entering MAT programs

Census Region	Census Division	Number of Centers	Number of Surveys	Change in odds (95% CI)	p-value
Northeast	New England	8	5,519	0.50 (0.24,1.05)	0.069
	Mid-Atlantic	10	5,017	1.13 (0.61,2.11)	0.700
Midwest	East North Central	10	7,963	3.20 (2.24,4.55)	<0.001
	West North Central	2	650	3.50 (1.5,8.17)	0.004
South	South Atlantic	22	8,264	2.84 (2.06,3.93)	<0.001
	East South Central	5	2,095	3.51 (1.86,6.61)	<0.001
	West South Central	4	1,812	3.49 (2.07,5.90)	<0.001
West	Mountain	7	2,075	7.04 (4.3,11.54)	<0.001
	Pacific	11	4,910	3.79 (2.91,4.93)	<0.001

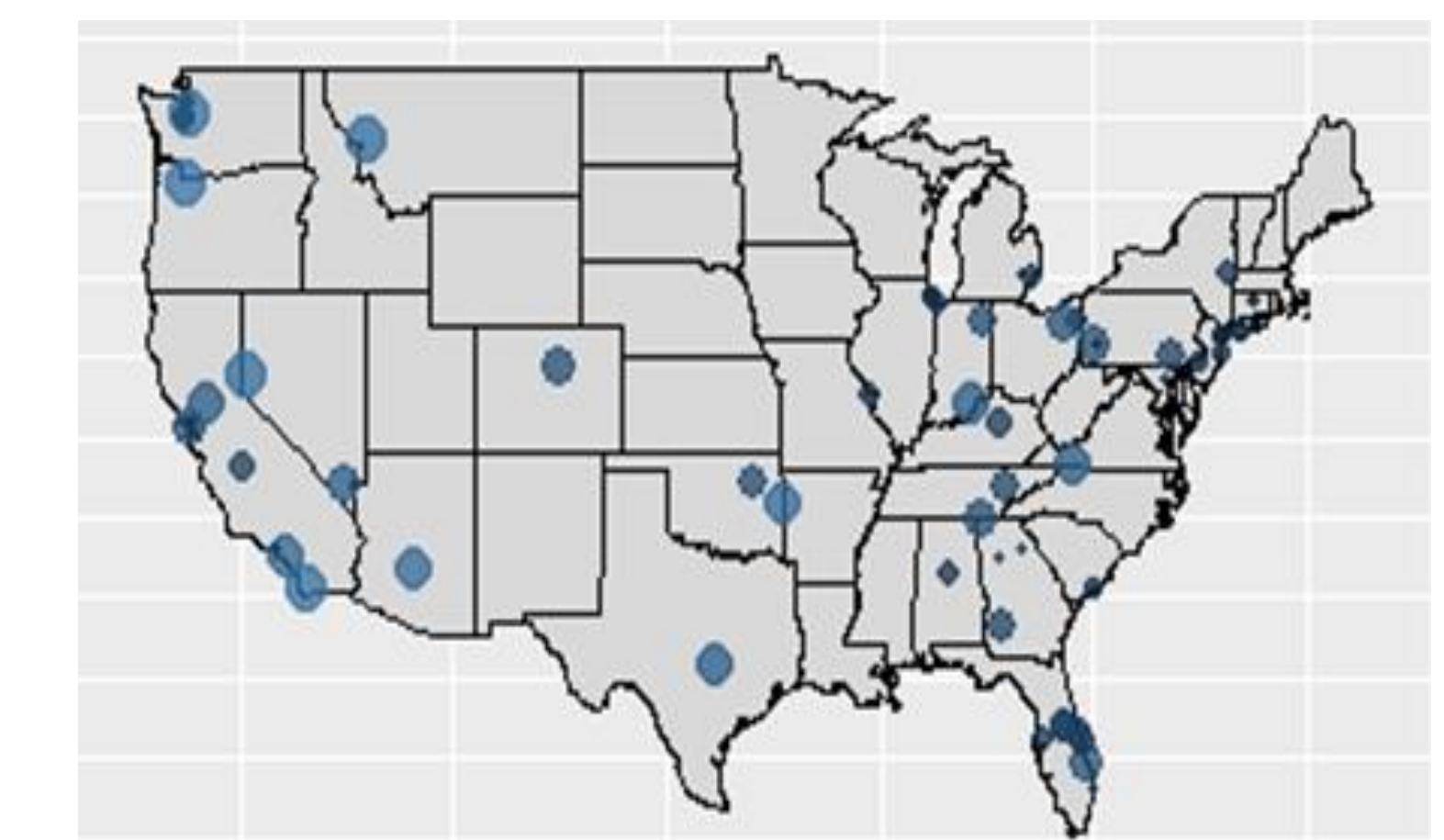
National past-month methamphetamine use among individuals entering MAT programs



1st quarter 2012



3rd quarter 2018



Percentage Methamphetamine Use By center*

- 0
- 25
- 50
- 75
- 100