

## NDEWS Special Report

### Top 10 US counties per region with the highest rates of EMS encounters involving nonfatal cocaine overdoses per 10,000 population

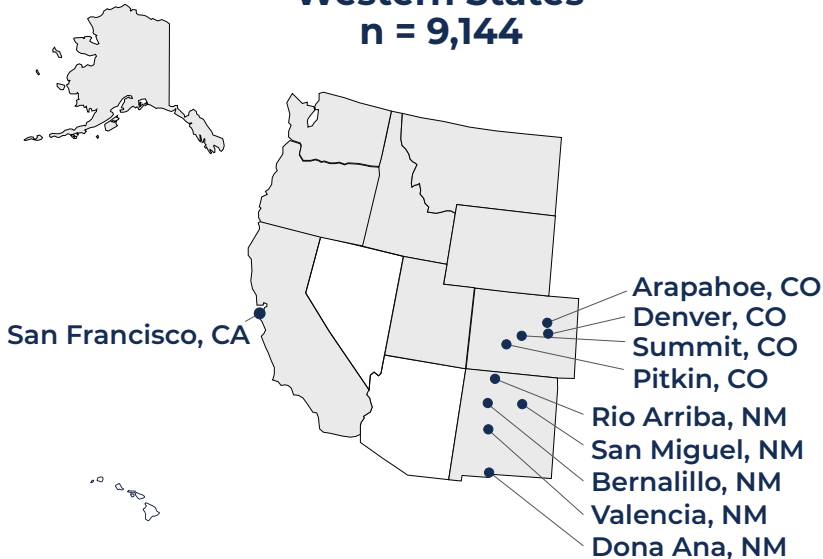
January 1, 2023 - February 28, 2026

Nationally, 52,176 nonfatal EMS encounters involving cocaine overdoses were recorded from January 1, 2023 to February 28, 2026. Of these 9,110 (17.5%) occurred in Western states, 9,074 (17.4%) in Midwestern states, 23,587 (45.2%) in Southern states, and 10,405 (19.9%) in Northeastern states. Counties with  $\geq 10$  encounters are presented below as encounters per 10,000 population; counties with fewer than 10 encounters have been suppressed.

### Top 10 US counties per region with the highest rates of EMS encounters involving nonfatal cocaine overdoses per 10,000 population

January 1, 2023 - February 28, 2026

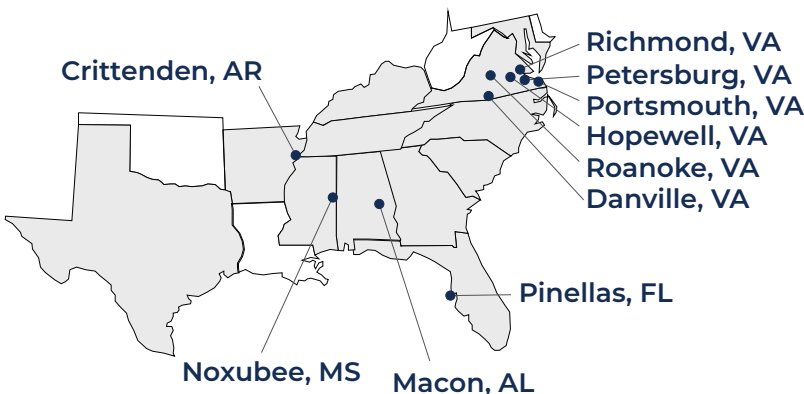
#### Western States n = 9,144



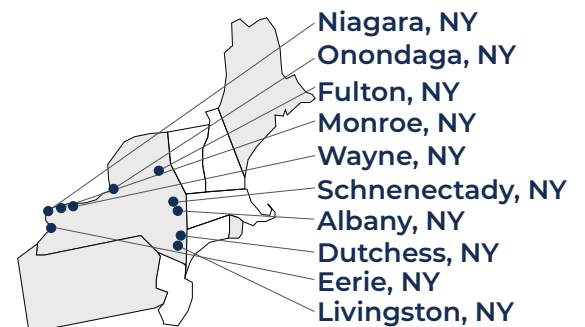
#### Midwestern States n = 9,074



#### Southern States n = 23,623



#### Northeastern States n = 10,423



Legend  Insufficient data or not reporting  Reportable data

**Top 10 US counties per region with the highest rates of EMS encounters  
involving nonfatal cocaine overdoses per 10,000 population  
January 1, 2023 - February 28, 2026  
n = 52,176**

**Western States  
n = 9,110**

**Midwestern States  
n = 9,074**

County*	EMS encounters per 10,000 population	County*	EMS encounters per 10,000 population
San Miguel, NM	9.30	Racine, WI	7.00
Denver, CO	8.40	Muskegon, MI	6.61
Bernalillo, NM	5.78	Genesee, MI	6.37
Pitkin, CO	5.59	Wayne, MI	6.1
San Francisco, CA	5.27	Milwaukee, WI	5.85
Summit, CO	5.22	Kent, MI	5.77
Rio Arriba, NM	4.67	Washtenaw, MI	5.38
Dona Ana, NM	4.47	Saginaw, MI	5.21
Arapahoe, CO	4.41	Peoria, IL	5.18
Valencia, NM	4.13	Winnebago, IL	5.01

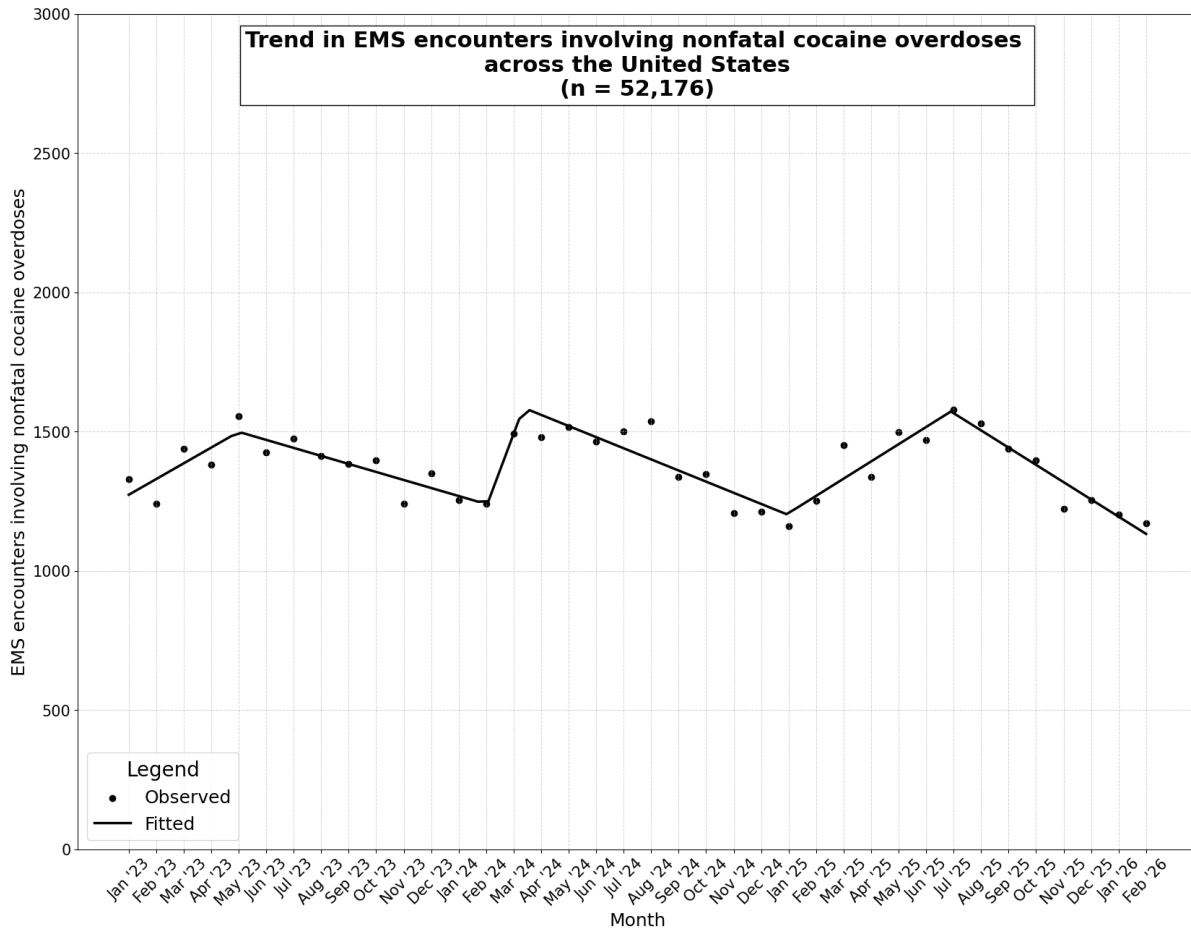
**Southern States  
n = 23,587**

**Northeastern States  
n = 10,405**

County*	EMS encounters per 10,000 population	County*	EMS encounters per 10,000 population
Petersburg, VA	29.56	Monroe, NY	20.30
Richmond, VA	15.46	Eerie, NY	10.76
Pinellas, FL	12.02	Wayne, NY	8.17
Macon, AL	11.74	Livingston, NY	7.69
Noxubee, MS	11.72	Onondaga, NY	7.58
Portsmouth, VA	11.04	Fulton, NY	7.38
Roanoke, VA	10.90	Niagara, NY	7.15
Danville, VA	10.28	Schenectady, NY	6.89
Hopewell, VA	9.83	Albany, NY	6.78
Crittenden, AR	9.66	Dutchess, NY	5.49

\*Colors reflect EMS encounters grouped by state.

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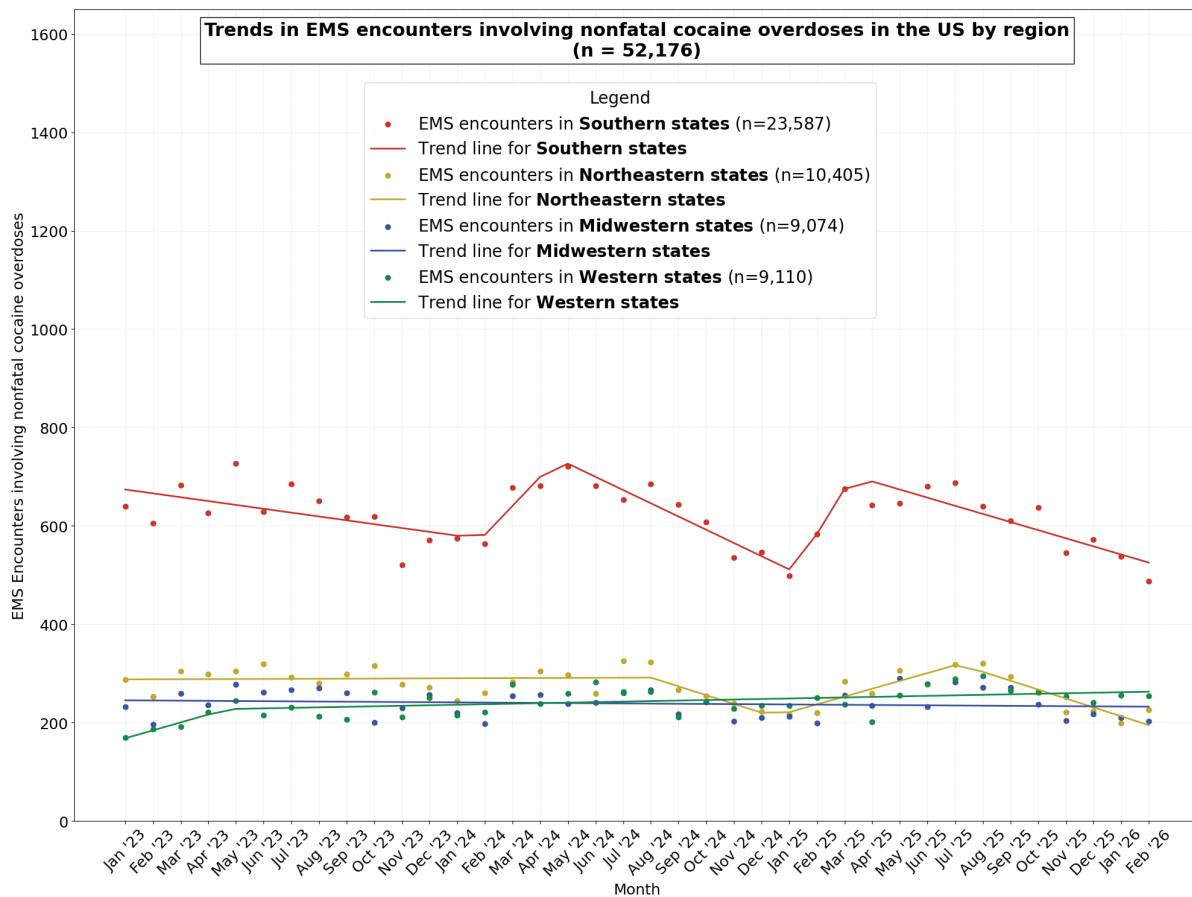


Nationally, encounters declined from May 2023 through January 2024 ( $\beta = -0.06, p = 0.02$ ), followed by an increase from February through March 2024 ( $\beta = 0.08, p = 0.05$ ). From March 2024 through January 2025, encounters declined ( $\beta = -0.09, p = 0.03$ ). Encounters subsequently increased from January through July 2025 ( $\beta = 0.08, p < 0.001$ ) and then declined from July 2025 through February 2026 ( $\beta = -0.09, p < 0.001$ ).

**\*\*Methodology:** Trends in EMS encounters involving nonfatal cocaine overdoses were examined using joinpoint regression. This method fits weighted least-square regression models to EMS encounters on a log transformed scale. It also uses Monte Carlo permutation tests with a Bonferroni correction for multiple testing and identifies models with the best-fit set of joinpoints. These are points (or knots) in trends that indicate significant shifting points. Poisson models were specified under the assumption of non-constant variance or heterogeneity over time. National and regional models were run and produced statistically significant results.

**EMS encounters involving nonfatal cocaine overdoses** were included if the encounter involved an emergency response with patient contact, contained a documented mention of cocaine in the patient complaint or narrative (including common misspellings). The EMS encounters were identified according to the state of Virginia’s definition of a non-opioid overdose.

All dispatch types above follow the guidelines set by the National Emergency Medical Services Information System (NEMSIS).



#### Southern Region:

EMS encounters involving nonfatal cocaine overdoses showed a statistically significant decline from January 2023 through February 2024 ( $\beta = -0.01$ ,  $p = 0.02$ ). They increased from January through April 2025 ( $\beta = 0.09$ ,  $p = 0.004$ ) and subsequently declined from April 2025 through February 2026 ( $\beta = -0.09$ ,  $p = 0.002$ ).

#### Northeastern Region:

Encounters remained stable from January 2023 through December 2024 ( $\beta = 0.001$ ,  $p = 0.75$ ). Encounters then increased from January through July 2025 ( $\beta = 0.13$ ,  $p = 0.05$ ), followed by a decline from July 2025 through February 2026 ( $\beta = -0.12$ ,  $p < 0.001$ ).

#### Midwestern Region:

Encounters remained stable from January 2023 through February 2026 without any statistically significant trends.

#### Western Region:

Encounters remained relatively stable throughout the study period with no statistically significant trends.

**Limitations:** Biospatial.io data reflect pre-hospital EMS encounters and do not include hospital outcomes, or toxicology confirmation. Much of the data relies on clinical impressions, self-report, or bystander accounts. Additionally, EMS encounters involving nonfatal cocaine overdoses may be underreported, overreported, or misclassified.