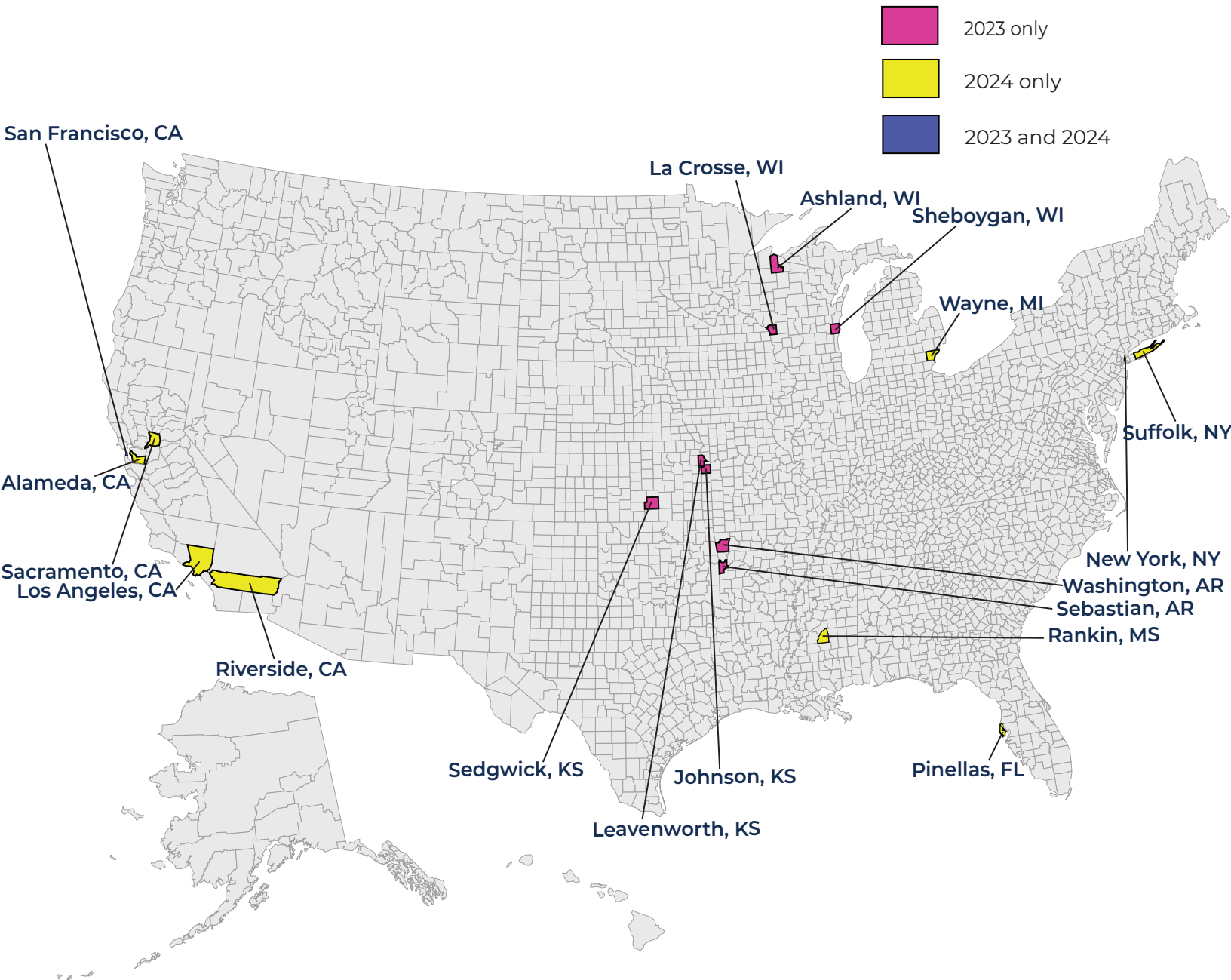


## NDEWS Special Report EMS encounters in the US for nonfatal inhalant-related overdoses January 1, 2023 - December 31, 2024

In this week's report, NDEWS highlights observations from biospatial.io detailing the EMS encounters in the US for nonfatal inhalant-related overdoses from 2023 to 2024. Among states with at least 75% coverage, there were 852 nonfatal inhalant-related overdose encounters.

### US counties with the highest rate of EMS encounters for nonfatal inhalant-related overdoses per 10,000 population January 1, 2023 - December 31, 2024



## US counties with the highest rate of EMS encounters for nonfatal inhalant-related overdoses per 10,000 population January 1, 2023 - December 31, 2024 n = 852

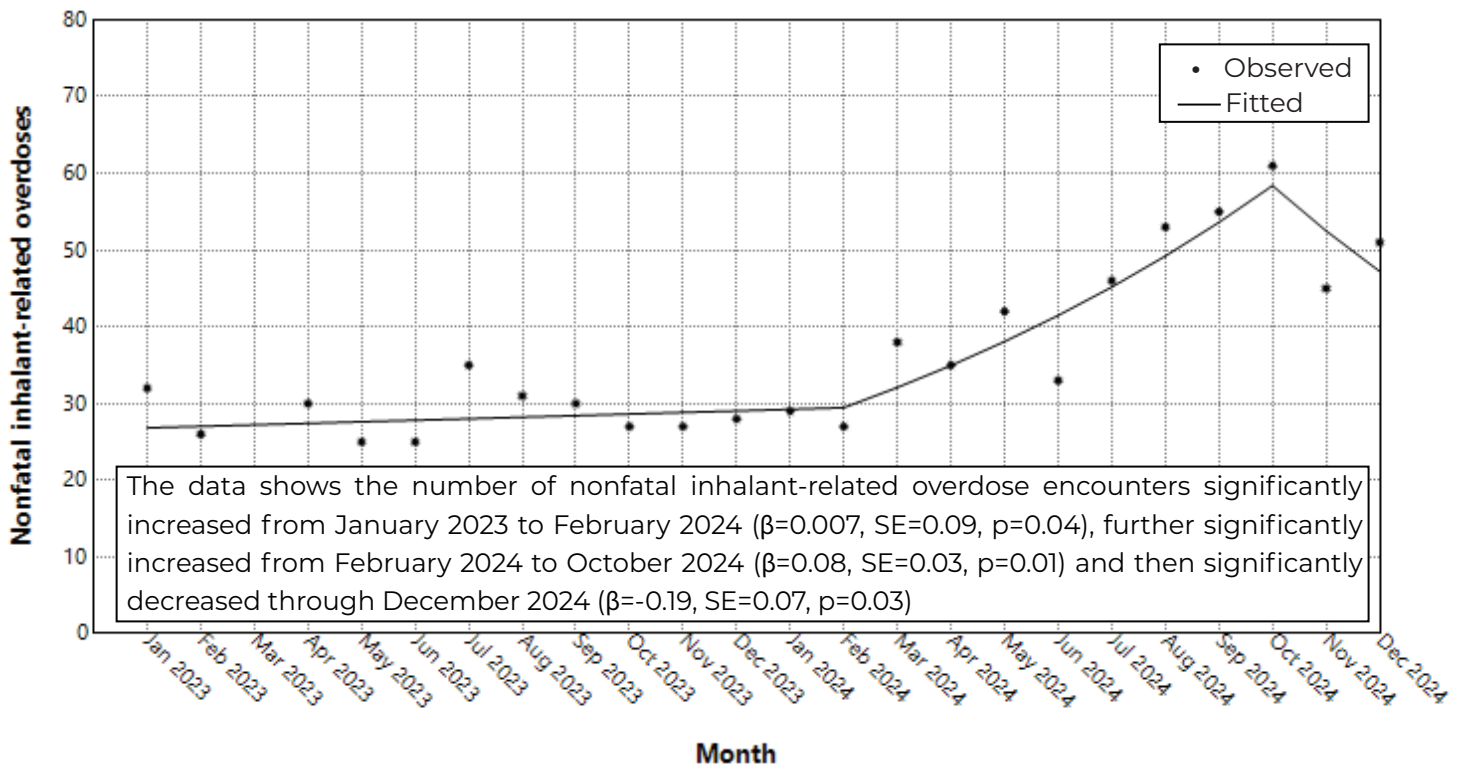
**2023**  
**n = 337**

**2024**  
**n = 515**

County	Count per 10,000 population	Overdose Encounters	County	Count per 10,000 population	Overdose Encounters
San Francisco, CA	0.15	13	San Francisco, CA	0.18	16
New York, NY	0.08	13	Pinellas, FL	0.14	14
Washington, AR	—*	—*	Wayne, MI	0.09	16
Sebastian, AR	—*	—*	New York, NY	0.08	13
Sheboygan, WI	—*	—*	Suffolk, NY	0.07	10
La Crosse, WI	—*	—*	Alameda, CA	0.07	12
Ashland, WI	—*	—*	Sacramento, CA	0.06	10
Sedgwick, KS	—*	—*	Riverside, CA	0.06	14
Leavenworth, KS	—*	—*	Los Angeles, CA	0.02	23
Johnson, KS	—*	—*	Rankin, MS	—*	—*

\*Notes: Counts less than ten are automatically suppressed.  
Colors reflect state clustering

## Trends in EMS encounters in the US for nonfatal inhalant-related overdoses by month: A joinpoint analysis January 1, 2023 - December 31, 2024 n = 852



Joinpoint regression\*\* version 5.3.0 (National Cancer Institute, 2024) was used to examine trends.

**Nonfatal inhalant-related overdose EMS encounters** were included if the Chief complaint/Narrative in the Narrative Text Search contained “poppers”, “whippets”, “amyl nitrite”, “alkyl nitrite” or “galaxy gas”

All dispatch types above follow the guidelines set by the National Emergency Medical Services Information System (NEMSIS). Data is limited to 28 US states/districts with statewide partnerships with biospatial.io: Alabama, Alaska, Arkansas, California, Colorado, District of Columbia, Florida, Georgia, Idaho, Illinois, Kansas, Kentucky, Maine, Michigan, Minnesota, Mississippi, Montana, New Mexico, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Virginia, Wisconsin, and Wyoming.

States included in this report met or exceeded a 75% coverage during the surveillance period, indicating that biospatial.io has received at least 75% of the expected data for the given time and region.

**\*\*Joinpoint regression**, also known as broken line, piecewise, multi-phase, or segmented regression, fits weighted least-square regression models to rates or counts 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.