NDEWS Special Report

National Trends in EMS Encounters for Suspected Nonfatal Overdoses Involving Ketamine by Age Group and Region

January 1, 2024 - September 30, 2026

Report generated by NDEWS on October 16, 2026

Overview

Nationally, 8,556 EMS encounters for suspected nonfatal overdoses involving ketamine were recorded from January 1, 2024, through September 30, 2026. The figures on the following pages show the quarterly distribution of encounters by US Census Bureau region and age group. Regional trends in encounters among individuals aged 18–25 years and those aged 26 years and older were examined by quarter using linear trendlines to describe temporal patterns.

The Western region accounted for 3,024 encounters, followed by the Southern (2,881), Midwestern (1,332), and Northeastern (1,319) regions. Across the four regions, 1,539 encounters involved individuals aged 18–25 and 6,808 involved those aged 26+.

Individuals aged 26 years and older

Quarterly counts were consistently higher among individuals aged 26+ in all four regions. Between the first and final quarters, counts increased from 174 to 176 in the Western region, 77 to 103 in the Midwestern region, 151 to 230 in the Southern region, and 65 to 145 in the Northeastern region. All four fitted linear trendlines had positive slopes, although counts fluctuated during the period.

Individuals aged 18-25 years

Among individuals aged 18–25, quarterly counts ranged from 38–61 in the Western region, 16–33 in the Midwestern region, 33–56 in the Southern region, and 13–27 in the Northeastern region. Linear trendlines had positive slopes in the Western, Midwestern, and Northeastern regions and were nearly flat in the Southern region.

Note: These trendlines describe observed patterns; statistical significance and differences between age-group trends were not assessed.

75% of the data reported within 24 hours of event. Source: biospatial.io, 2026. NDEWS is funded by the National Institute on Drug Abuse to the University of Florida (MPI: Cottler (contact), Co-Is: Goldberger, Nixon, Striley), NYU Langone Health (MPI: Palamar), and Florida Atlantic University (Co-I: Barenholtz). Recommended citation: National Drug Early Warning System (NDEWS). Special Report (October 16, 2026). Retrieved from https://ndews.org.

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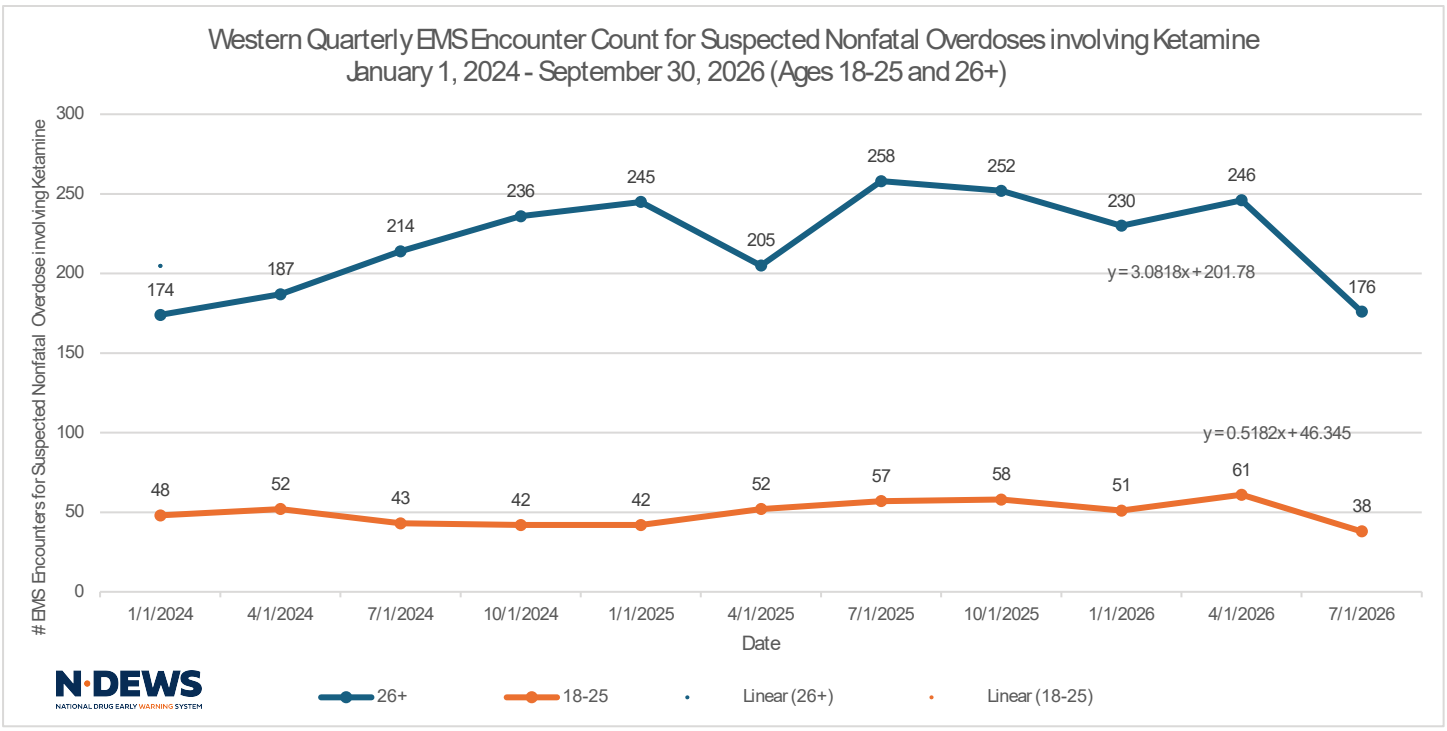

Western

Underlying Event Coverage Legend

- No Coverage
- 1%-33%
- 34%-66%
- 67%-99%

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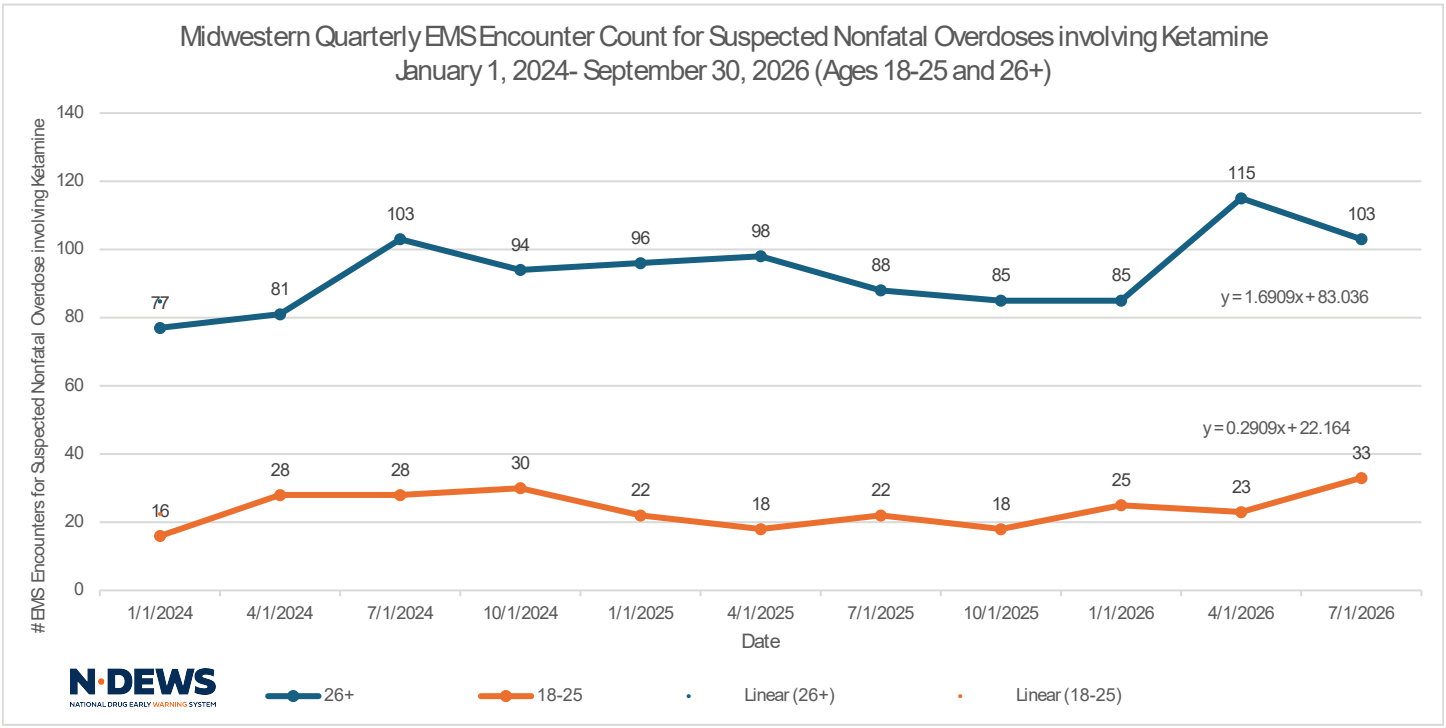
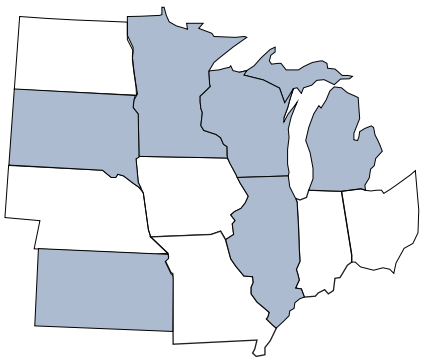


Midwestern



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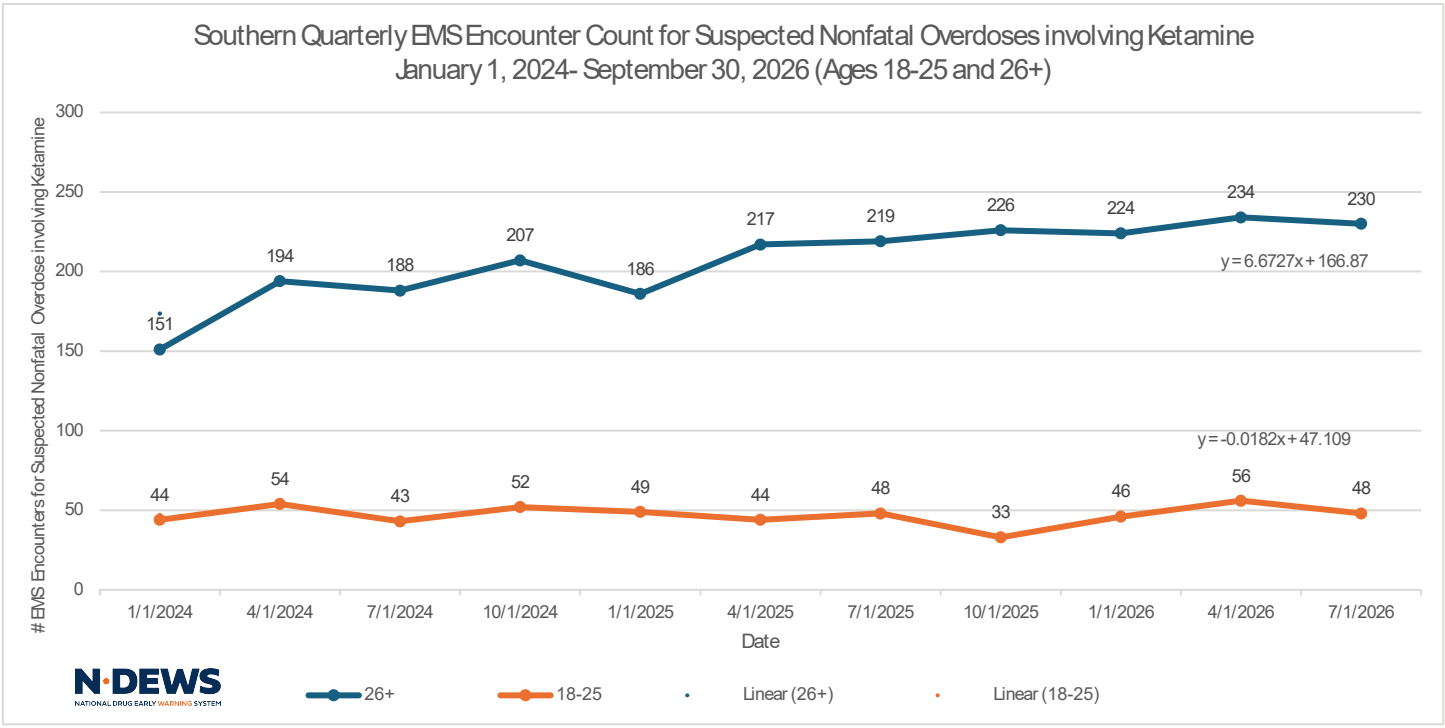
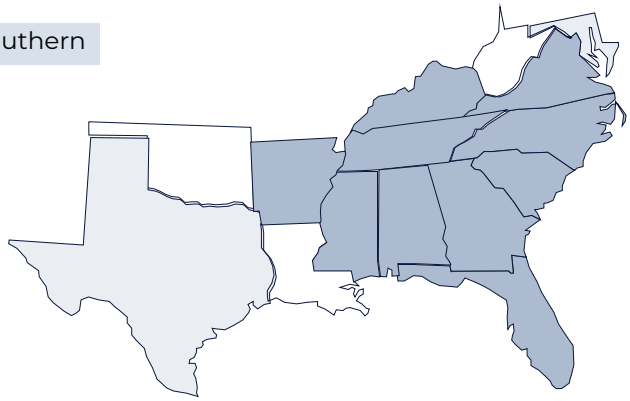


Southern



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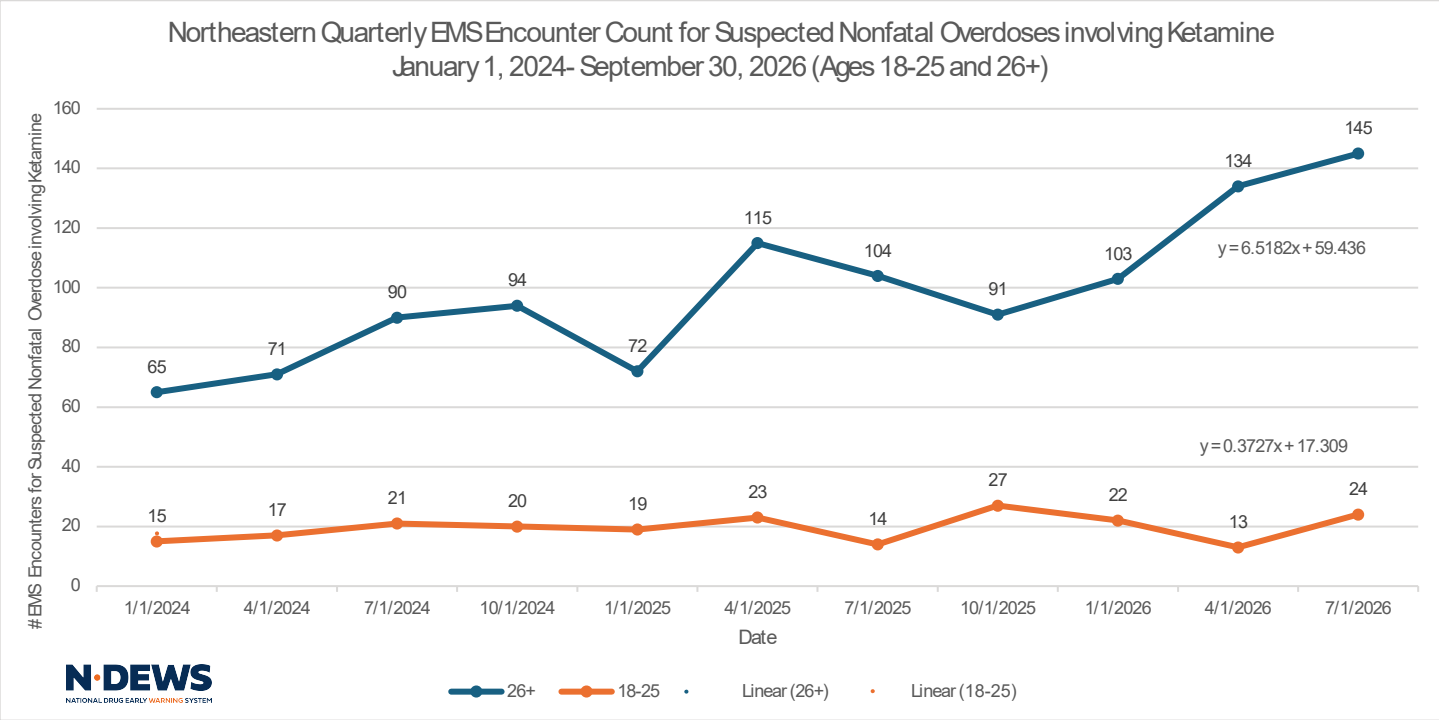
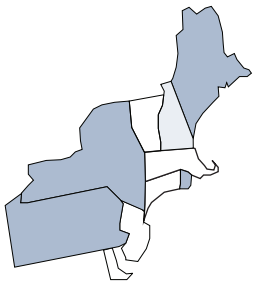
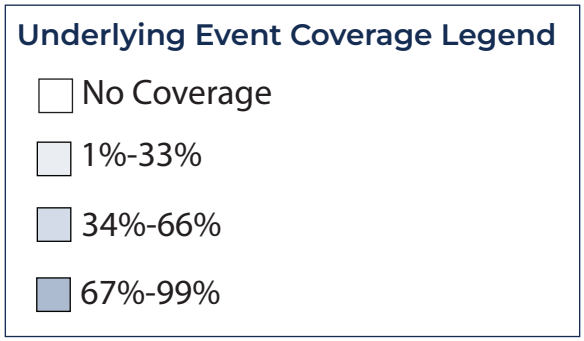


Northeastern





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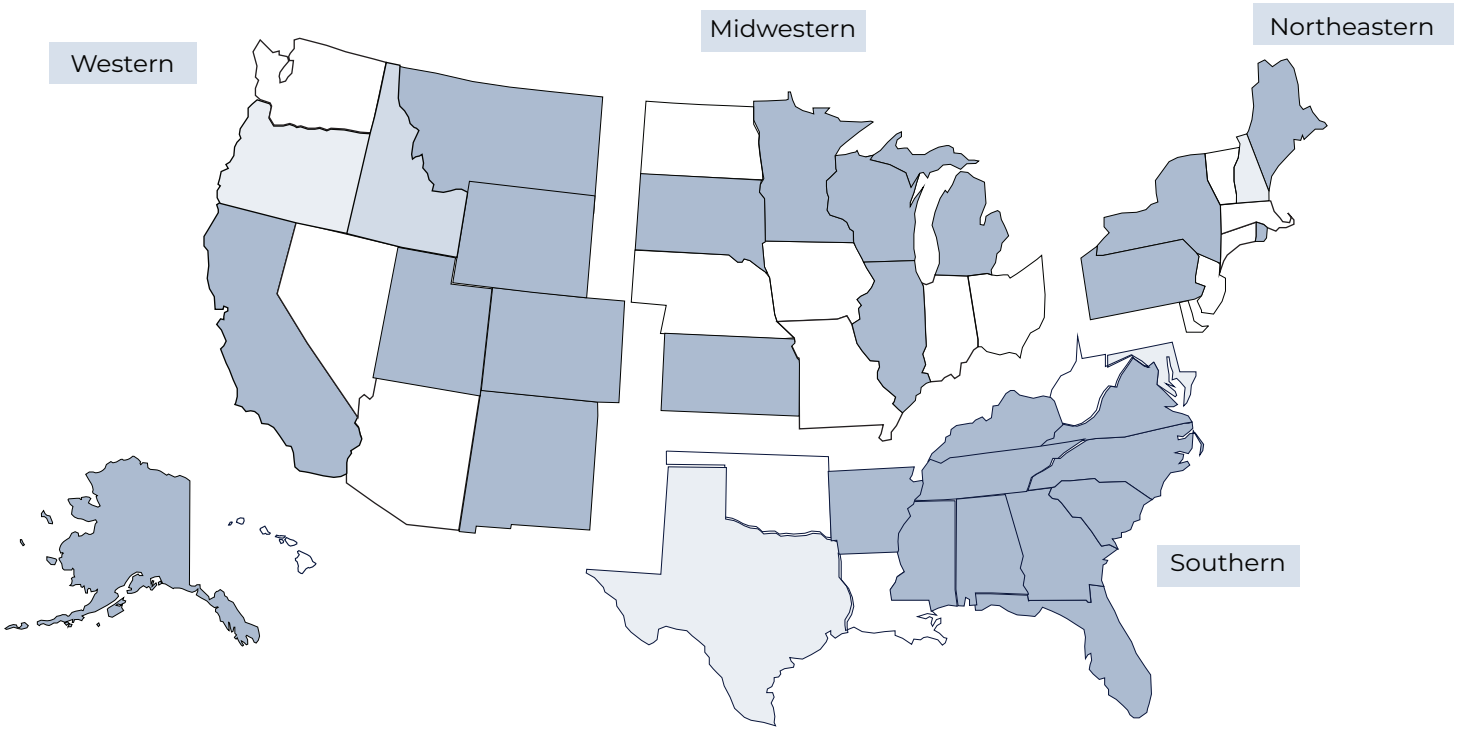
Map of National Underlying Event Coverage



Underlying Event Coverage Legend No Coverage | 1%-33% | 34%-66% | 67%-99%

Methodology: The distribution of EMS encounters by region and age group is displayed using quarterly encounter counts. Linear trendlines were fitted using ordinary least-squares regression, with sequential quarter numbers as the time variable. Their slopes represent the estimated average change in encounter counts per quarter.

EMS encounters for suspected nonfatal overdoses involving ketamine from January 1, 2024, through September 30, 2026, were analyzed by region and age group. Encounters were identified using the Florida ESOOS Overdose syndrome definition and included documented mentions of ketamine in the patient complaint or narrative, including common misspellings. Only encounters involving emergency response services in which patient contact was made were included. Encounters in which ketamine was administered by EMS were excluded. Encounters with documented ketamine administration by EMS were queried separately using the same search criteria and subtracted from the corresponding totals within each quarter, region, and age group. After this exclusion, counts for ages 18–25 were calculated by subtracting counts for ages 26+ from those for ages 18+. Dispatch classifications follow National Emergency Medical Services Information System (NEMSIS) guidelines.

Limitations: biospatial.io data reflect pre-hospital EMS encounters and do not include hospital outcomes or toxicological confirmation. Much of the classification relies on clinical impressions, self-report, or bystander accounts. Additionally, EMS encounters involving suspected overdoses may be underreported, overreported, or misclassified. Underlying event coverage varies by state, with incomplete reporting in some states. States with less than 67% coverage are AZ, CA, CT, DE, IA, ID, IN, LA, MA, ND, NE, NH, NJ, NV, OH, OK, OR, TX, VT, WA, and WV.