Pre-EMS Naloxone Administration in Idaho Emergency Medical Services Calls

January – December 2025

Background

Naloxone is a life-saving medication that has been shown to reduce opioid overdose mortality.[i] Idaho organizations and residents can request free naloxone from the Idaho Department of Health and Welfare (IDHW). In 2025, IDHW distributed approximately 83,290 doses of naloxone throughout the state, or about one dose per 24 Idahoans.[ii,*]

Collecting community-reported data on naloxone reversals can be challenging, but electronic patient care records (ePCRs) from Emergency Medical Services (EMS) can provide valuable insight. EMS personnel often document medical interventions, such as naloxone administration, that occurred prior to EMS arrival (PTEA) to the scene. This brief uses data extracted from nonfatal overdose ePCRs available in the Biospatial platform to examine bystander naloxone administration data in Idaho.

Summary

Out of 1,621 patients who received emergency medical services for a drug overdose in Idaho in 2025, 301 patients received a total of 471 doses of naloxone from a bystander PTEA. Law enforcement was the most common type of bystander identified. Patients receiving naloxone PTEA were mostly male (60%) and between the ages of 25 and 44 (59%). A small proportion of patients received additional naloxone from EMS personnel (17%) once they arrived and most patients receiving naloxone PTEA were transported to the hospital (76%).

301 patients
received naloxone prior to EMS arrival

311 bystanders
administered naloxone prior to EMS arrival

471 doses
naloxone administered prior to EMS arrival

Bystanders

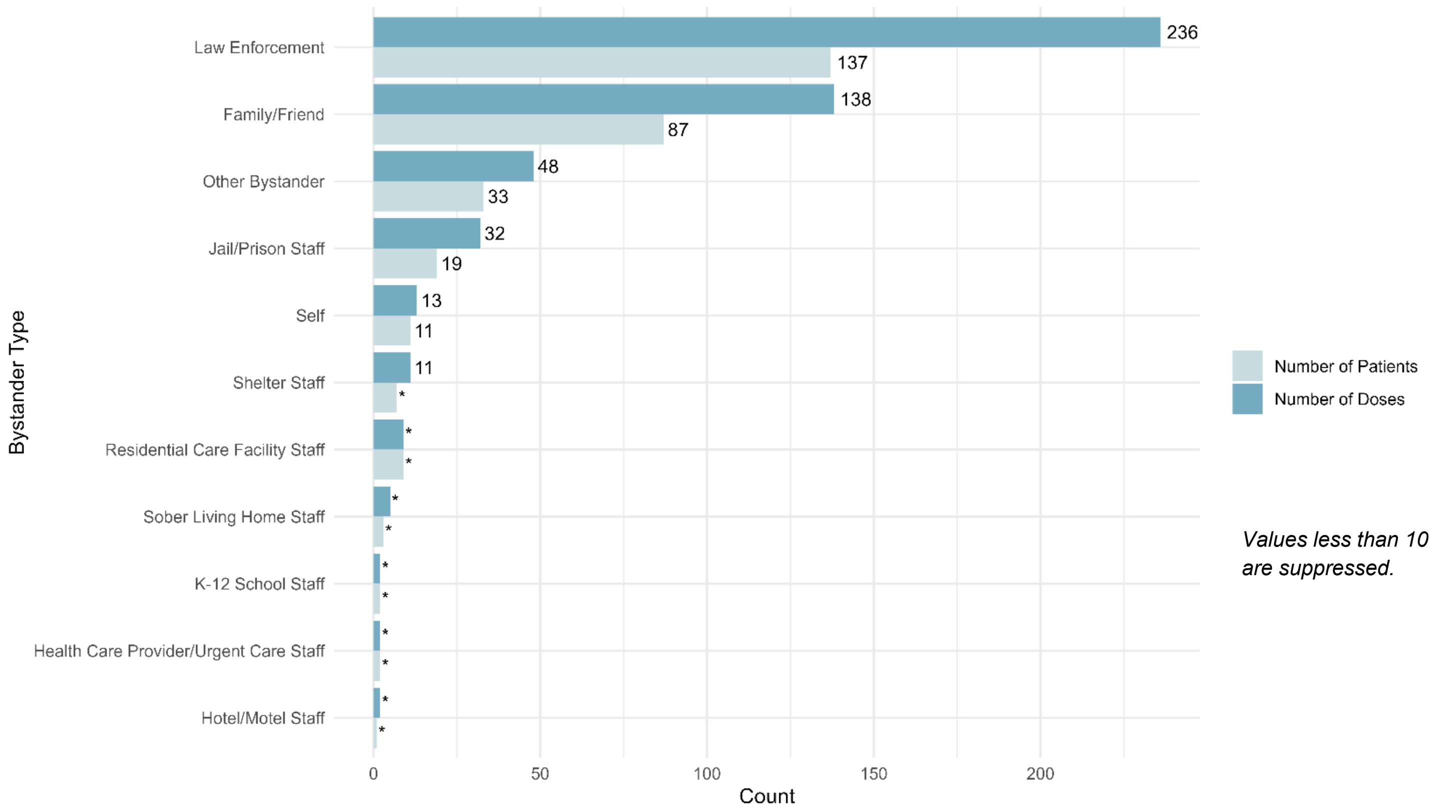
Law Enforcement was the most common type of bystander identified in this data. This finding is not surprising, since law enforcement often co-respond with EMS to overdose-related calls for service and may get to the scene quicker than EMS. This category includes agencies such as Idaho Fish and Game and probation and parole.

Family or Friend was the second most common type of bystander identified. This category also includes any other individuals known to the patient, such as significant others and roommates.

Other Bystanders, the third most common type of bystander identified in this data, comprises individuals not known to the patient. Bystanders were also labeled as *Other* if EMS did not specify who had administered the naloxone, but this rarely occurred.

[*] *IDHW is one of several sources of naloxone for Idahoans. Some organizations may independently purchase naloxone for distribution to the public. Naloxone is also available for purchase over-the-counter.*

Figure 1. Number of Naloxone Patients Encountered and Number of Doses Administered by Type of Bystander

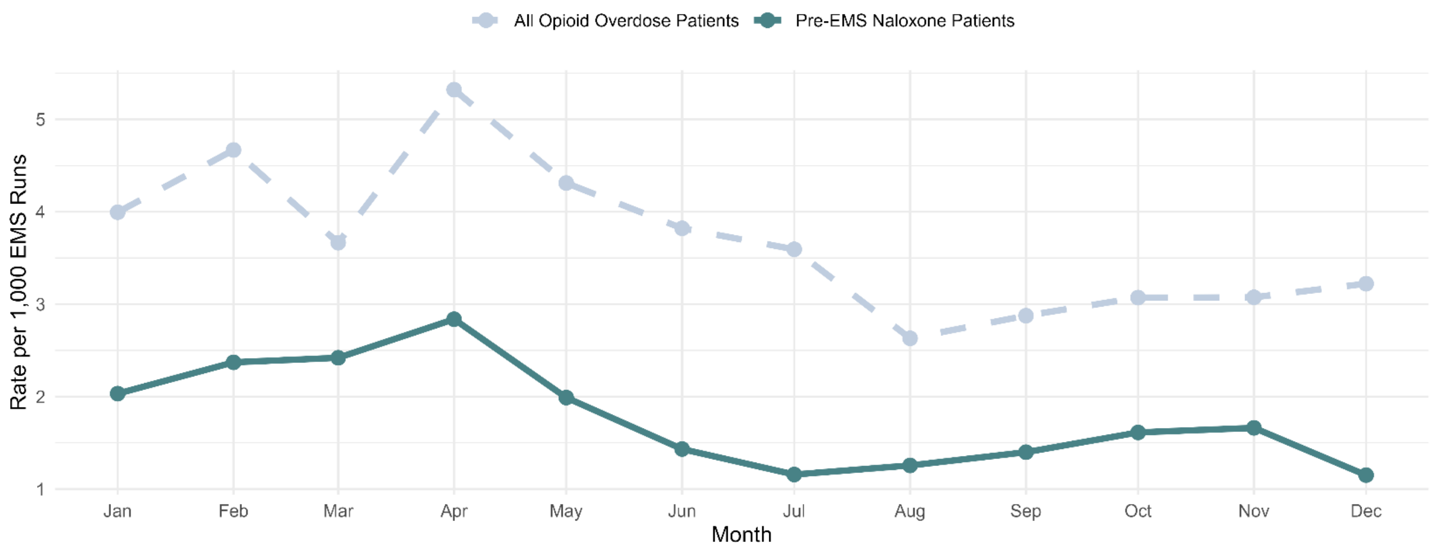


A few patients received multiple doses of naloxone from different bystanders (i.e. one dose from a family member followed by another dose from law enforcement). Eleven patients administered naloxone to themselves due to concern for an opioid overdose.

Trends Over Time

The rate of EMS runs during which a patient received naloxone PTEA ("pre-EMS naloxone patients") per 1,000 EMS runs peaked in April 2025 and dipped sharply over the summer, followed by a slight increase through the fall. This trend, shown in Figure 2, tracks similarly to the overall rates of opioid overdose-related EMS calls seen throughout the year.

Figure 2. Rates of Opioid Overdose EMS Patients and Pre-EMS Naloxone Patients, January – December 2025

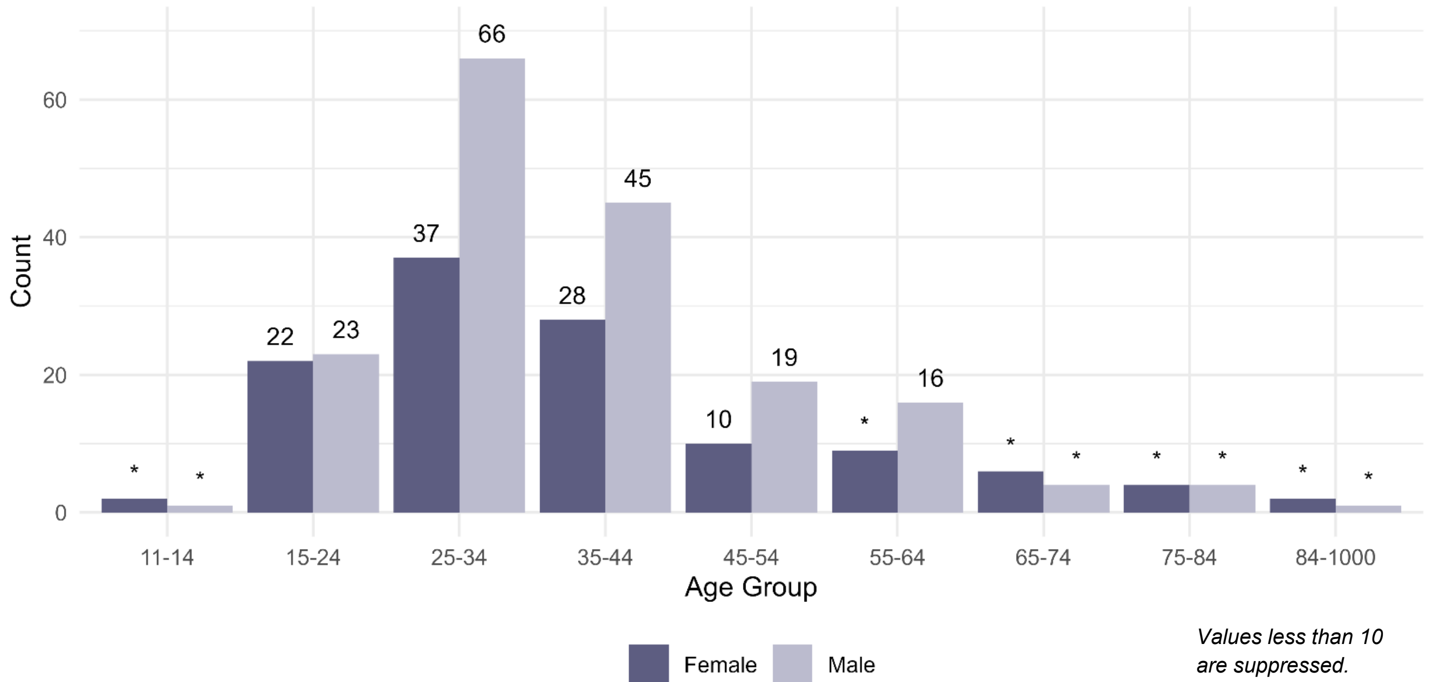


Pre-EMS Naloxone Patient Demographics

The median age of patients who received naloxone PTEA was 34 years old, which was slightly lower than the median age for all overdose EMS patients in 2025. More male patients (179) received naloxone PTEA than female patients (120). Of the 347 males who were treated by EMS for a suspected opioid overdose, 52% received naloxone PTEA, compared to 42% of female opioid overdose EMS patients.

Most patients who received naloxone PTEA were between the ages of 25 and 44 (58%). Very few patients under the age of 14 or older than 75 received naloxone PTEA.

Figure 3. Number of Patients Receiving Pre-EMS Naloxone by Age and Sex



Doses Administered

Fifty-eight percent of patients received only one dose of naloxone from a bystander. The average number of doses per patient did not greatly differ between male and female patients (male: 1.6, female: 1.5). Most patients (83%) did not require additional naloxone from EMS personnel.

Jail/Prison Staff administered the highest average doses per patient (1.8), followed closely by *Law Enforcement* (1.7), *Sober Living Home Staff* (1.6) and *Family/Friend* (1.6).

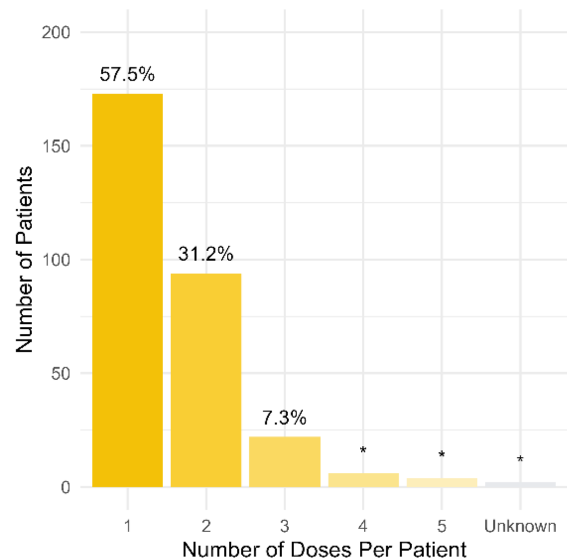


Figure 4. Number of Doses Administered per Patient

Geographic Distribution

There was some variation in the rate of pre-EMS naloxone administration by Public Health District. PHD 6 (Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power Counties) had the highest rate of patients receiving naloxone PTEA and the highest rate of opioid overdose EMS calls.

Forty-two percent of all naloxone doses administered prior to EMS arrival in 2025 were to patients in Ada County or Canyon County. The counties with the highest rates of doses administered per 10,000 population were Bannock, Nez Perce, Kootenai, Minidoka and Canyon (**Table 1**).**

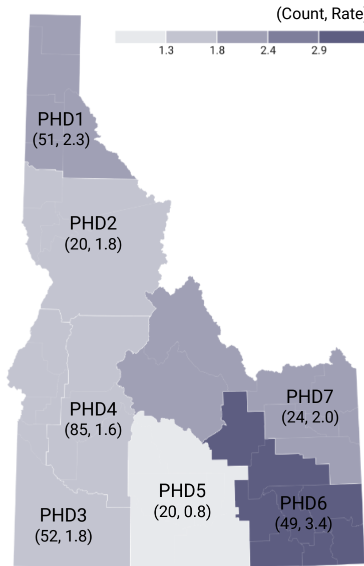


Figure 5. Rate of Pre-EMS Naloxone Patients per 1,000 EMS Patients, by PHD

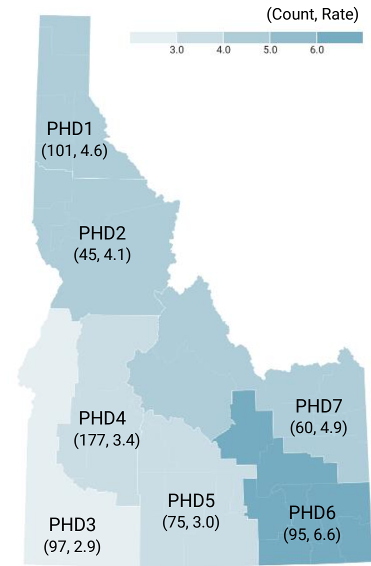


Figure 6. Rate of Opioid Overdose EMS Patients per 1,000 EMS Patients, by PHD

Table 1. Number and Rate of Pre-EMS Naloxone Doses Administered by County

County	Number of Doses Administered Pre-EMS	Rate of Pre-EMS Naloxone Doses Administered per 10,000 Population
Ada	125	2.3
Bannock	66	7.2
Bingham	7	1.4
Bonner	6	1.1
Bonneville	19	1.4
Canyon	73	2.7
Kootenai	68	3.5
Latah	6	1.4
Minidoka	7	3.1
Nez Perce	30	7.0
Payette	6	2.2
Twin Falls	21	2.2

***Counties with counts less than 5 are suppressed.*

Limitations

These findings are likely an underrepresentation of overall naloxone utilization in Idaho communities for a number of reasons. Not all laypersons who administer naloxone may call 9-1-1. Research on overdose response suggests that individuals at the scene of an overdose may be hesitant to call 9-1-1 for a variety of reasons, including fear of law enforcement involvement, legal repercussions and the perceptions that EMS care is not needed or would take too long to arrive in rural areas.[iii]

Additionally, these data are based on EMS provider documentation and syndrome definitions applied within the Biospatial platform. As such, the numbers should be interpreted as estimates and may not reflect all relevant EMS calls with complete accuracy.

References

i. Fischer LS, Asher A, Stein R, et al. Effectiveness of naloxone distribution in community settings to reduce opioid overdose deaths among people who use drugs: a systematic review and meta-analysis. BMC Public Health. 2025;25(1):1135. Published 2025 Mar 25. doi:10.1186/s12889-025-22210-8.
ii. Idaho Department of Health and Welfare, Division of Behavioral Health. Issued April 2026.
iii. Baker et al. Harm Reduction Journal (2024) 21:107 https://doi.org/10.1186/s12954-024-01007-9.

Technical Notes

Data for this brief were extracted from the Biospatial platform in January 2026.

1. Search parameters: Date range: 1/1/25-12/31/25; State: Idaho; Syndromes: **Nonfatal Overdose** *(see definition below)* and **Methamphetamine**; Type of Service requested: Emergency Response (Mutual Aid), Emergency Response (Intercept), Emergency Response (Primary Response Area). Fatalities excluded.
    a. **Nonfatal Overdose** Syndrome Definition:
        i. An ePCR is labeled as an overdose if TWO OR MORE of the following are true:
            1. The EMS provider's primary or secondary impression starts with F11, F13-F16, or F18-F19, or is one of T40.1X4, T40.2X1, T40.691, T43.291, T43.621, T50.904, T50.991;
                a. F11: Opioid-related disorders
                b. F13: Sedative, hypnotic, or anxiolytic-related disorders
                c. F14: Cocaine-related disorders
                d. F15: Other stimulant-related disorders
                e. F16: Hallucinogen-related disorders
                f. F18: Inhalant-related disorders
                g. F19: Other psychoactive substance-related disorders
                h. T40: Poisoning by, adverse effect of and underdosing of narcotics and psychodysleptics (hallucinogens)
                    i. T40.1X4: Poisoning by heroin, undetermined
                    ii. T40.2X1: Poisoning by other opioids, accidental (unintentional)
                    iii. T40.691: Poisoning by other narcotics, accidental (unintentional)
                    iv. T43.621: Poisoning by amphetamines, accidental (unintentional)
                i. T50: Poisoning by, adverse effect of and underdosing of diuretics and other and unspecified drugs, medicaments and biological substances
                    i. T50.904: Poisoning by unspecified drugs, medicaments and biological substances, undetermined
                    ii. T50.991: Poisoning by other drugs, medicaments and biological substances, accidental (unintentional)
            2. OR the secondary impression contains "opioid", "stimulant", "hallucinogen", "cocaine", "sedative", "inhalant", "psychoactive", "heroin", "other drugs", or "unspecified drugs"
            3. The patient Narrative or Chief Complaint includes "overdose", "opioid", "opiod", "opiate", "opium", "fentanyl", "heroin", "herion", "speedball", "speed ball", "spheroin", "hod", "OD", "O.D.", "O/D", "OD/", or "ODED".
            4. Naloxone (or brand names) is listed as Medication Administered OR Narrative/Chief Complaint contains naloxone (or brand names).
                a. The syndrome also applies if naloxone was given AND the Medication Response indicates that the patient "Improved"
                b. OR Medication Response does not indicate "unchanged" or "worse" AND one of the following terms is found in the Narrative or Chief Complaint: "white powder", "syringes", "improved loc", "improvement in loc", "positive response to Narcan"
    b. **Methamphetamine** Syndrome Definition: Categorical syndrome definition intended to detect incidents involving methamphetamine based on terms and phrases found in the record narrative and chief complaint elements (there is no ICD-10-CM code specific to methamphetamine abuse, so provider impressions are not conclusive). Indication of methamphetamine overdose, use, treatment, withdrawal, or history of methamphetamine use will positively match, while other confusing terms (methadone, "drawsheet meth", locations with "Meth" in the name, etc.) are ignored. Users may isolate the returned data to acute cases of methamphetamine use by filtering on incident/patient disposition, service category, and patient acuity, among other search parameters.
        i. A NEMSIS v3 or v2 record is labeled as a methamphetamine incident if the following is true:
            1. Narrative (NEMSIS v2: E13_01; NEMSIS v3: eNarrative.01) or chief/secondary complaint (NEMSIS v2: E09_05/E09_08; NEMSIS v3: eSituation.04) contains "meth" or "methamphetamine".
                a. Certain phrases are excluded, for example: "methadone", "denies meth use", "drawsheet meth". Phrases associated with "Methodist" hospitals are excluded: "dispatched to meth", "Meth-Boerne", "Meth-Dallas", "meth-main", "meth-ob", "so-meth", "transferred to meth".
2. Calls that are cancelled prior to arrival at scene, cancelled on scene (no patient contact or found), or are on standby (no services or support provided) are excluded.
3. An ePCR was further excluded by manual review if the patient was only experiencing withdrawal symptoms, only reported past substance use and no current acute symptoms related to drug use, or was only seeking medical clearance for a residential facility.

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