



## Suspected Opioid Overdose in Emergency Medical Services (EMS) Data, 2024

### Background

This report describes suspected opioid overdoses documented by EMS providers during 2024. The data comes from the Montana EMS incident dataset. *PLEASE NOTE: This report includes both [NEMESIS 3.4](#) and [NEMESIS 3.5](#) records. Montana began transitioning to NEMESIS 3.5 in Sept 2023. When interpreting this data, please keep in mind that there may be some data quality issues due to the transition.* Montana statute requires that licensed ground and air transporting EMS agencies submit a patient care report (PCR) to the dataset for each patient they encounter. Non-transporting agencies may also submit data. Therefore, the dataset may contain multiple records (EMS activations) that pertain to the same patient or incident.

In order to zero-in on a single record per overdose event, this report is restricted to 911 responses by ground transporting agencies (N=108 records excluded). It includes records with an incident date between January 1, 2024, and December 31, 2024, and scene location in Montana. EMS activations are considered opioid-related if they meet the [Montana opioid overdose syndrome criteria](#).<sup>1</sup> Visit our [Opioid Data FAQ](#) for more information.

### Data Limitations

- Numbers in this report are provisional and subject to change due to latent record submissions or updates
- Data quality issues
- Does not capture overdoses where EMS did not make patient contact
- Does not capture most naloxone administrations by law enforcement or the public

### Results

#### *Opioid Overdose-related 911 Responses*

There were **844 opioid overdose-related 911 responses** by ground transporting EMS agencies in 2024 – an average of 70 per month (the monthly average was 81 in 2023 and 87 in 2022). March had the highest number of opioid overdose-related 911 responses (Figure 1). **Naloxone was documented in 325 of 844 cases (38.5%)**. Naloxone is a medication used for the emergency treatment of a known or suspected opioid overdose.<sup>2</sup> *There were an additional 240 cases where naloxone was mentioned in the patient care narrative but not documented in the medication fields.*

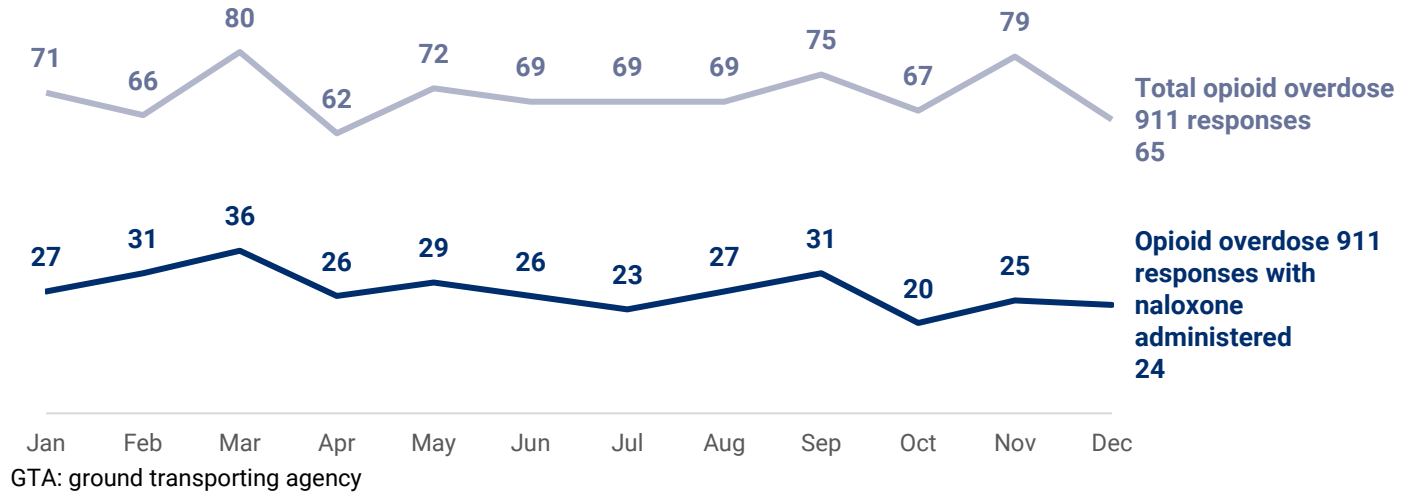
---

<sup>1</sup> Version 10.11.2024

<sup>2</sup> To learn more about accessing free naloxone, e-mail [naloxone@mt.gov](mailto:naloxone@mt.gov)



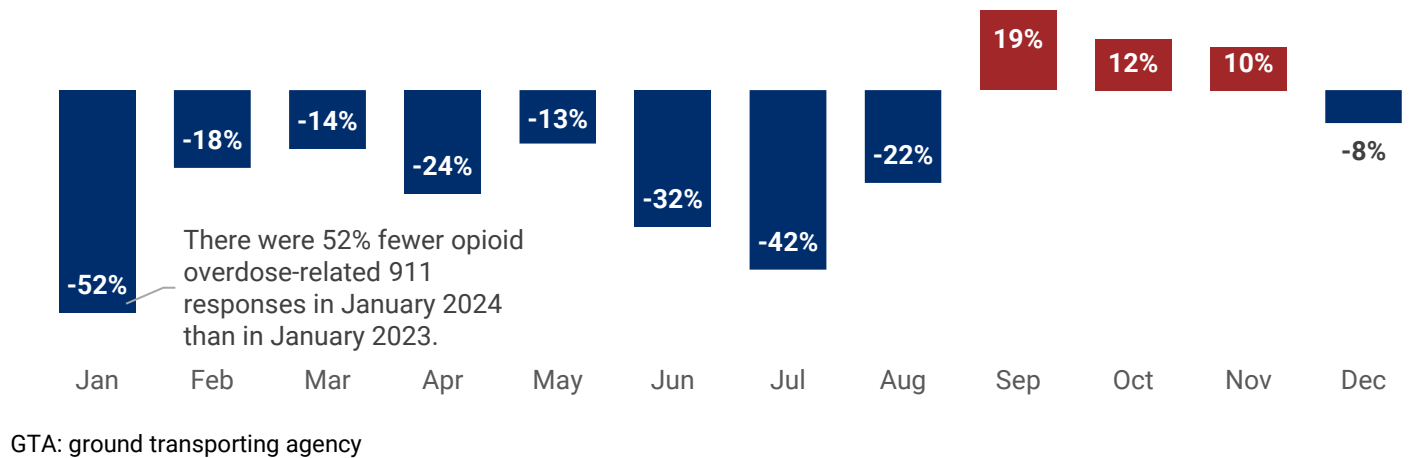
**Figure 1. Opioid overdose-related GTA 911 responses by whether naloxone was administered, Montana, 2024**



**Percent Change from 2023**

The total number of opioid overdose-related 911 responses in 2024 (N=844) was 13% less than 2023 (N=969). This may be due to the ongoing NEMSIS 3.5 transition which started in September 2023 or due to declines in opioid overdoses. Figure 2 shows most months in 2024 had less responses than the same month in 2023.

**Figure 2. Percent difference in monthly count of opioid-related GTA 911 responses, Montana, 2024 v. 2023**

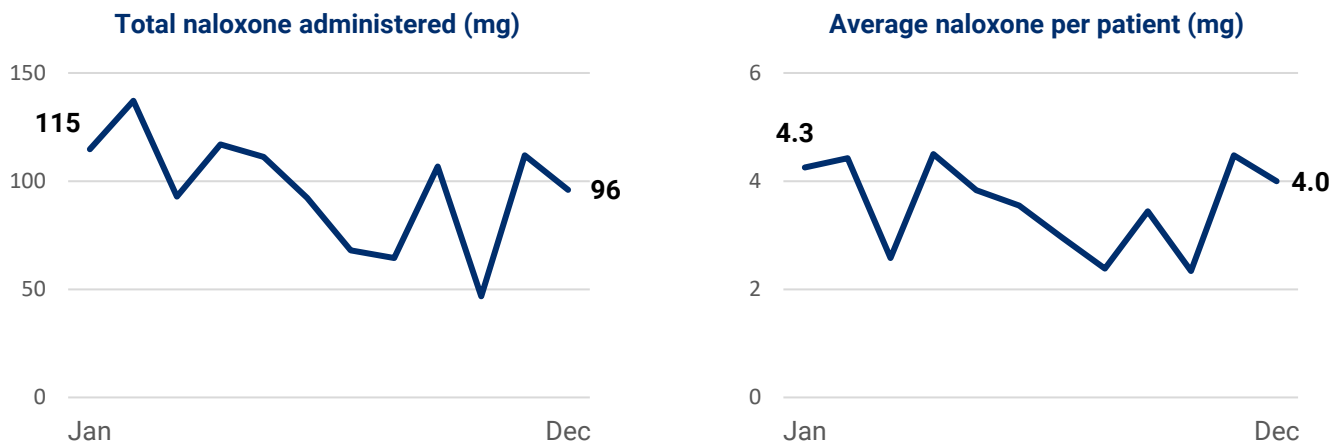




### Naloxone Administration

Among the 325 opioid-related cases where naloxone administration was documented correctly, there were **478 naloxone doses documented** with a total amount of 1159 milligrams (mg)—however, this total does not include data from records missing dosage information. An average of **97 mg of naloxone was administered per month** (in 2023 the average was slightly higher, 111 mg per month). The month with the highest amount of naloxone administered was Feb 2024 with almost 140 mg of naloxone used (Figure 3). An **average of 3.6 mg of naloxone was given per opioid overdose patient**, similar to the average of 3.4 during 2023. Individuals overdosing from stronger opioids may require a higher dose of naloxone to reverse their overdose.

**Figure 3. Monthly total amount of naloxone administered and average amount per patient, GTA 911 responses, Montana, 2024**



GTA: ground transporting agency

For further information, please visit our website: [Injury Prevention Program](#)  
**Sandra Biller**, Overdose Prevention Epidemiologist, [sandra.biller@mt.gov](mailto:sandra.biller@mt.gov)  
**Maureen Ward**, Injury Prevention Coordinator, [maureen.ward@mt.gov](mailto:maureen.ward@mt.gov)





**Table 1. Patients receiving multiple opioid overdose-related GTA 911 responses, Montana, 2024**

Number of opioid overdose-related GTA 911 responses	1 response	2 responses	3 responses	Patient name missing	Total
Number of patients	715	47	9	8	632

**Table 2. Opioid overdose-related GTA 911 responses, Montana, 2024**

	Q1	Q2	Q3	Q4	2024	All %
<b>Naloxone Administration</b>						
No documentation of naloxone administration	123	122	132	142	519	61.5%
Naloxone administered, Response=Improved	69	68	61	53	251	29.7%
Naloxone administered, Response=Unchanged	21	12	13	15	61	7.2%
Naloxone administered, Response=No answer	4	1	7	1	13	1.5%
<b>Patient Disposition</b>						
Patient Evaluated and Care Provided- with Transport	180	176	189	170	715	85%
Patient Evaluated and Care Provided- without Transport	16	8	9	16	49	6%
Patient Refusal, No Transport	17	14	12	24	67	8%
Patient Dead at Scene, No Transport	2	1	1	0	4	<1%
Other/Missing	2	4	2	1	9	1%
<b>Incident County NCHS Urban-Rural Classification</b>						
Small Metro	114	88	102	58	362	43%
Micropolitan	48	45	60	101	254	30%
Non-core (Rural)	52	64	51	50	217	26%
Not Reported	3	6	0	2	11	1%
<b>Patient Sex</b>						
Female	86	90	90	110	376	45%
Male	130	112	122	101	465	55%
Not Reported	1	1	1	0	3	<1%
<b>Patient Age</b>						
0-17 Years	9	5	5	14	33	4%
18-24 Years	20	28	19	14	81	10%
25-44 Years	112	101	115	94	422	50%
45-64 Years	55	40	42	50	187	22%
65+ Years	19	27	30	39	116	14%
Not Reported	2	2	2	0	6	1%
<b>Patient Race*</b>						
American Indian or Alaska Native	51	49	56	29	185	22%
Asian	†	†	0	†	†	1%
Black or African American	†	†	†	†	†	1%
Hispanic or Latinx	†	†	†	†	12	1%
Native Hawaiian or Other Pacific Islander	†	0	0	†	†	<1%
White	126	126	125	151	528	63%
Other Race	7	11	10	5	33	4%
Not Reported	24	15	20	19	78	9%
<b>Total</b>	<b>217</b>	<b>203</b>	<b>213</b>	<b>211</b>	<b>844</b>	<b>100%</b>

Numbers may not add to 100% due to rounding. GTA: ground transporting agency

\*Race is a multi-select field, therefore the sum of all race categories may exceed the total.

†= Race counts suppressed according to departmental policy if count is <5





**Table 3. Opioid overdose-related GTA 911 responses with naloxone documentation, Montana, 2024**

Incident County	Opioid Overdose related GTA 911 Responses (A)	Naloxone administration documented correctly (B)*	Naloxone term mentioned in narrative only (C)	% with naloxone documented correctly (B/A*100)	% with any mention of naloxone [(B+C)/A]*100
Beaverhead	3	0	1	0%	33%
Big Horn	7	2	2	29%	57%
Blaine	5	0	3	0%	60%
Broadwater	1	0	0	0%	0%
Carbon	4	3	1	75%	100%
Cascade	103	42	49	41%	88%
Chouteau	1	1	0	100%	100%
Custer	9	3	3	33%	67%
Daniels	3	0	1	0%	33%
Deer Lodge	2	1	0	50%	50%
Fallon	2	1	0	50%	50%
Fergus	4	2	0	50%	50%
Flathead	144	42	36	29%	54%
Gallatin	47	19	12	40%	66%
Glacier	19	13	1	68%	74%
Hill	27	12	8	44%	74%
Jefferson	2	0	0	0%	0%
Lake	36	21	6	58%	75%
Lewis & Clark	29	9	12	31%	72%
Liberty	1	0	0	0%	0%
Lincoln	16	9	5	56%	88%
Madison	8	2	0	25%	25%
Mineral	3	1	0	33%	33%
Missoula	92	24	38	26%	67%
Musselshell	3	0	2	0%	67%
Park	2	1	0	50%	50%
Pondera	1	1	0	100%	100%
Powell	16	11	1	69%	75%
Ravalli	12	5	2	42%	58%
Richland	3	0	1	0%	33%
Roosevelt	11	5	0	45%	45%
Rosebud	4	1	0	25%	25%
Sanders	3	2	0	67%	67%
Sheridan	1	1	0	100%	100%
Silver Bow	32	4	18	13%	69%
Stillwater	4	0	2	0%	50%
Sweet Grass	3	1	0	33%	33%
Toole	4	2	1	50%	75%
Valley	2	2	0	100%	100%
Wibaux	1	1	0	100%	100%
Yellowstone	163	80	29	49%	67%
~Not Stated	11	1	6	9%	64%
<b>All</b>	<b>844</b>	<b>325</b>	<b>240</b>	<b>39%</b>	<b>67%</b>

Only counties with at least one GTA 911 response with naloxone documentation are included. GTA: ground transporting agency  
 \*Must be documented in eMedications fields, please visit [NEMESIS 3.5 data dictionary](#) or EMSTS documentation guidelines ([video](#)/[PDF](#)) on overdose-related EMS incidents.

