



Suspected Opioid Overdose in Emergency Medical Services (EMS) Data, 2022

Background

This report describes suspected opioid overdoses documented by EMS providers during calendar year 2022. The data comes from the Montana EMS incident dataset.¹ 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=165 records excluded). It includes records with an incident date between January 1, 2022, and December 31, 2022, and scene location in Montana. EMS activations are considered opioid-related if they meet the [Montana opioid overdose syndrome criteria](#).²

Data Limitations

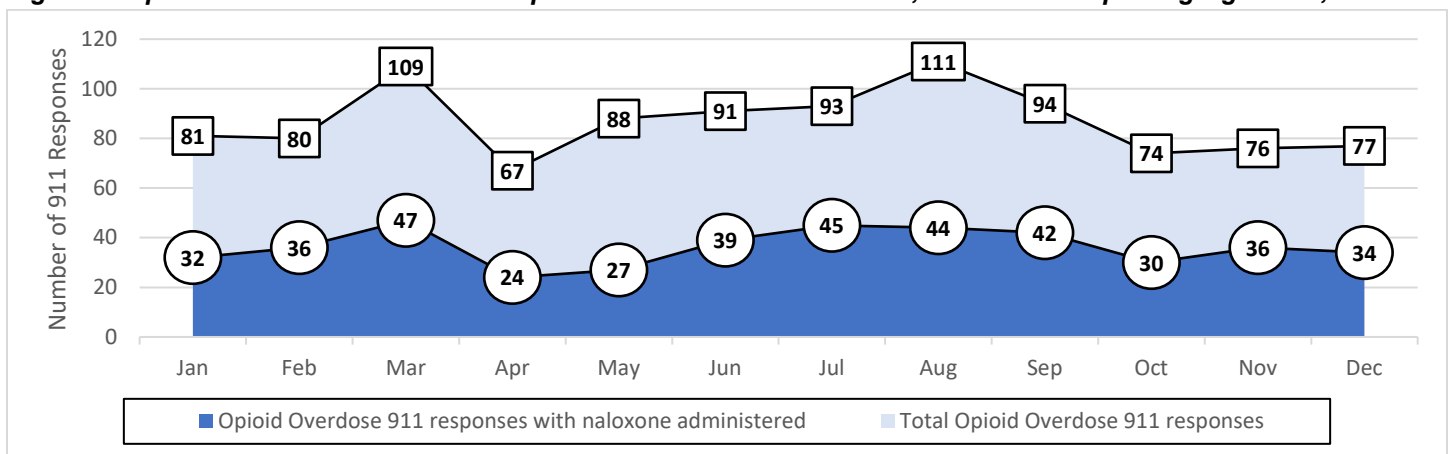
- Numbers in this report are provisional and subject to change due to latent record submissions or updates
- Data quality issues
- Does not capture overdoses where EMS did not make patient contact
- Does not capture most naloxone administrations by law enforcement or the public

Visit our [Opioid Data FAQ](#) for more information.

Results

There were **1,041** opioid overdose-related 911 responses by ground transporting EMS agencies in 2022 – an average of 87 per month (Higher than the 2021 monthly average of 76). August had the highest number of opioid overdose-related 911 responses (Figure 1). Naloxone, a medication used for the emergency treatment of a known or suspected overdose, was documented in **436** of the 1,041 cases (**41.9%**)³.

Figure 1. Opioid-overdose related 911 responses with/without naloxone, Ground Transporting Agencies, 2022



¹ Montana uses the [NEMSIS v3.4.0 data standard](#)

² Version 10.14.2022

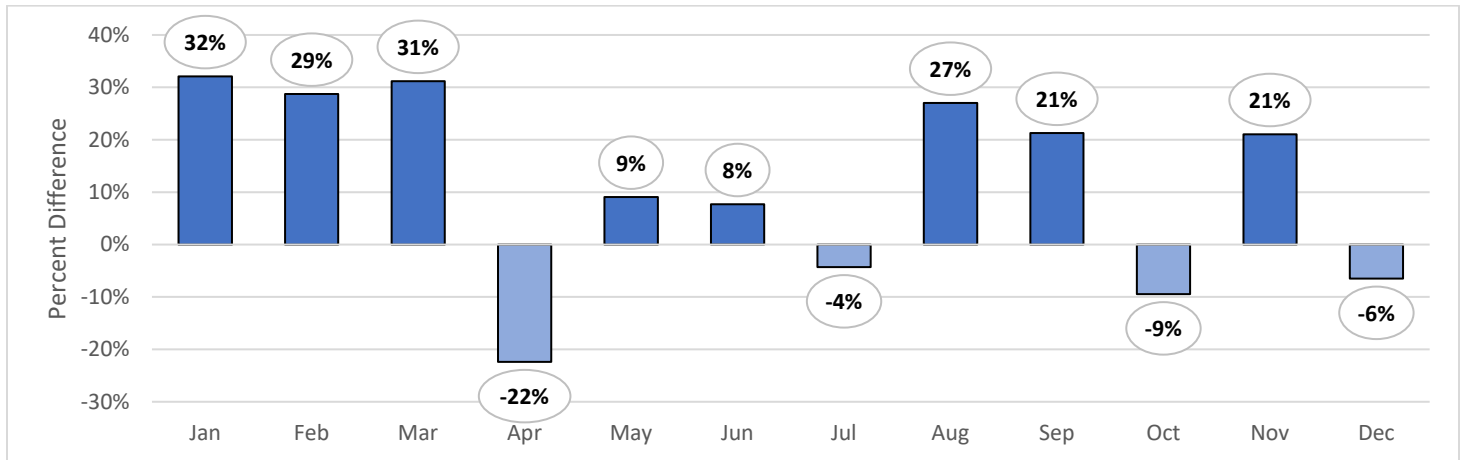
³ To learn more about accessing free naloxone, contact Ki-Ai McBride, Opioid Prevention Program Manager at naloxone@mt.gov





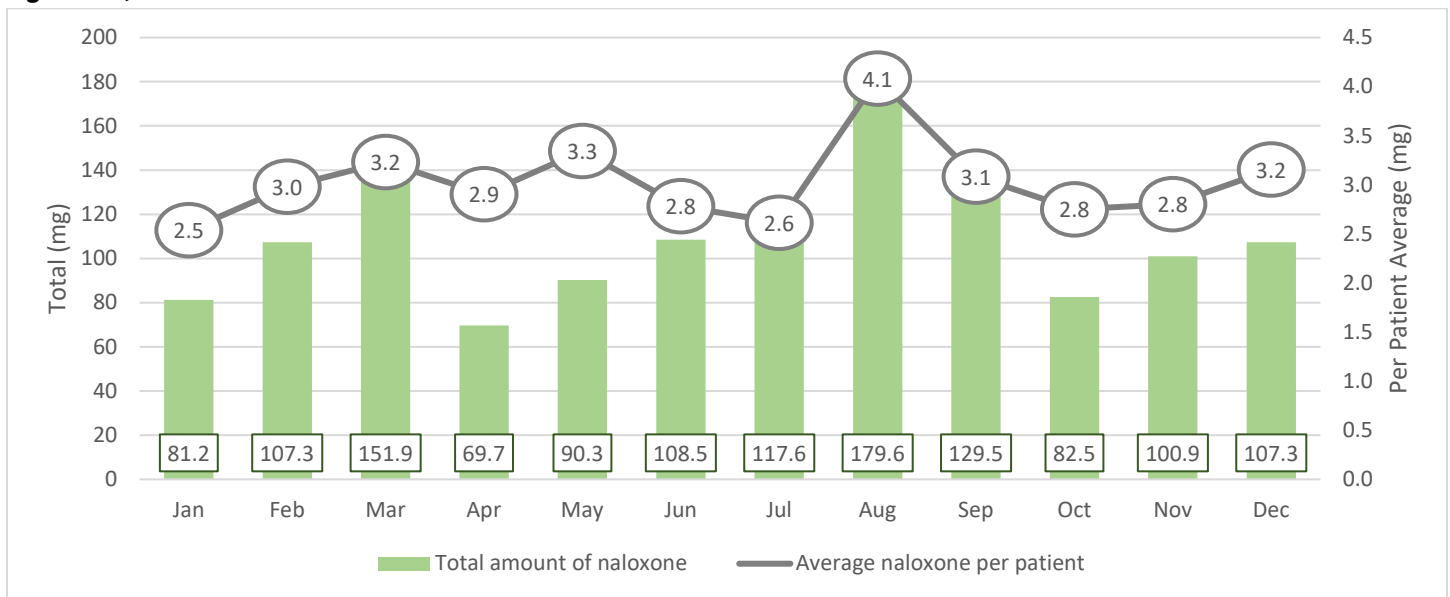
The total number of opioid overdose-related 911 responses increased by approximately **13%** in 2022 (N=1,041) compared to 2021 (N=908). Figure 2 shows which months in 2022 had more responses than the same month in 2021.

Figure 2. Percent difference in monthly number of opioid-related 911 responses, Ground Transporting Agencies, 2022 vs 2021



Among the 436 opioid-related cases where naloxone was given, there were 606 naloxone administrations documented with a total amount of **1,326 milligrams (mg)**—however, this total does not include data from records missing dosage information. The monthly average was **111 mg**, higher than in 2021 when the average was 76 mg per month. In August 2022, almost 180 mg of naloxone was used (Figure 3) which is higher than any month in 2021. An average of **3.0 mg** of naloxone was given per opioid overdose patient, higher than the average of 2.3 during 2021. Individuals overdosing from stronger opioids may require a higher dose of naloxone to reverse their overdose.

Figure 3. Monthly total mg naloxone administered and average mg per patient, 911 responses, Ground Transporting Agencies, 2022





Opioid overdose-related 911 responses, Ground Transporting Agencies, Montana, 2022

	Q1	Q2	Q3	Q4	YTD	All %
Naloxone Administration						
No documentation of naloxone administration	155	156	167	127	605	58%
Naloxone administered, Response=Improved	93	71	104	79	347	33%
Naloxone administered, Response=Unchanged	18	17	18	16	69	7%
Naloxone administered, Response=No answer	†	†	9	5	20	2%
Patient Disposition						
Patient Transported by this EMS Unit	216	187	246	185	834	80%
Patient Treated/Evaluated, No Transport (per protocol)	26	29	22	16	93	9%
Patient Refusal, No Transport	23	20	22	20	85	8%
Patient Dead at Scene, No Transport	5	10	8	6	29	3%
Incident County NCHS Urban-Rural Classification						
Small Metro	107	103	118	94	422	41%
Micropolitan	73	62	76	54	265	25%
Non-core (Rural)	59	47	76	55	237	23%
Not Reported	31	34	28	24	117	11%
Patient Sex						
Female	136	107	138	107	488	47%
Male	134	138	159	120	551	53%
Not Reported	0	†	†	0	†	0%
Patient Age						
0-17 Years	8	5	9	4	26	2%
18-24 Years	39	29	40	22	130	12%
25-44 Years	131	135	159	116	541	52%
45-64 Years	62	55	56	51	224	22%
65+ Years	28	22	29	33	112	11%
Not Reported	†	0	5	†	8	1%
Patient Race*						
American Indian or Alaska Native	61	46	56	40	203	20%
Asian	0	0	†	†	†	0%
Black or African American	†	†	†	†	14	1%
Hispanic or Latinx	†	†	9	6	21	2%
Native Hawaiian or Other Pacific Islander	0	0	0	†	†	0%
White	146	142	176	132	596	57%
Other Race	†	11	10	12	36	3%
Race Not Listed	52	42	42	33	169	16%
Total	270	246	298	227	1,041	100%

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

†= Suppressed according to departmental policy if cell count is <5

For further information, please visit our website: [Injury Prevention Program](#)

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