



Suspected Opioid Overdose in Emergency Medical Services (EMS) Data, 2023 Q1-Q2

Background

This report describes suspected opioid overdoses documented by EMS providers during calendar year 2023 Q1-Q2. 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=87 records excluded). It includes records with an incident date between January 1, 2023, and June 30, 2023, and scene location in Montana. EMS activations are considered opioid-related if they meet the [Montana opioid overdose syndrome criteria](#).²

Data Limitations

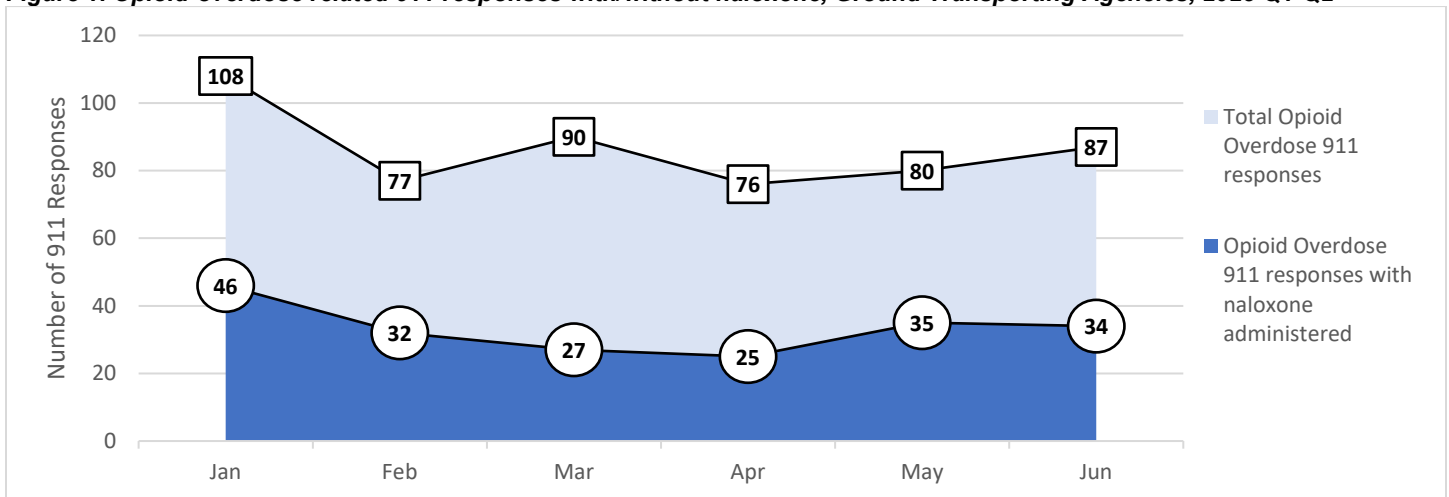
- Numbers in this report are provisional and subject to change due to latent record submissions or updates
- Data quality issues
- Does not capture overdoses where EMS did not make patient contact
- Does not capture most naloxone administrations by law enforcement or the public

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

Results

There were **518** opioid overdose-related 911 responses by ground transporting EMS agencies in 2023 Q1-Q2 – an average of 86 per month (the 2022 monthly average was 87, and 76 in 2021). January 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 **199** of 518 cases (**38.4%**)³. *There were an additional 164 cases where naloxone was mentioned in the patient care narrative but not documented in the medication fields.*

Figure 1. Opioid-overdose related 911 responses with/without naloxone, Ground Transporting Agencies, 2023 Q1-Q2



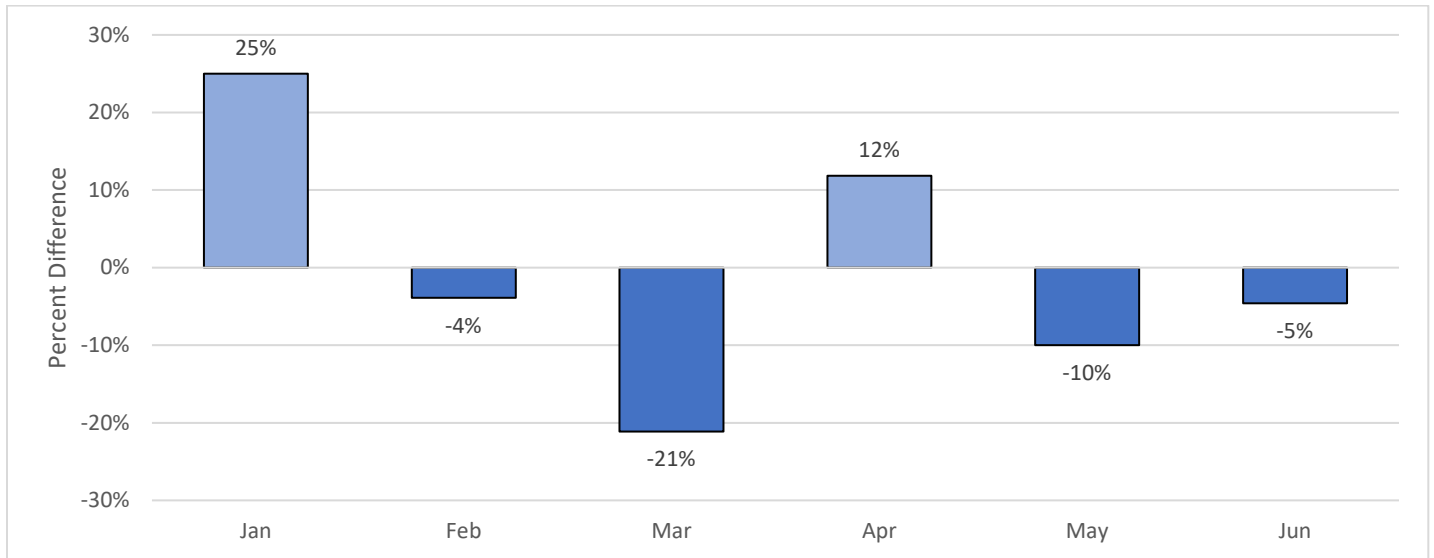
¹ Montana uses the [NEMSIS v3.4.0 data standard](#)

² Version 10.14.2022

³ To learn more about accessing free naloxone, e-mail naloxone@mt.gov

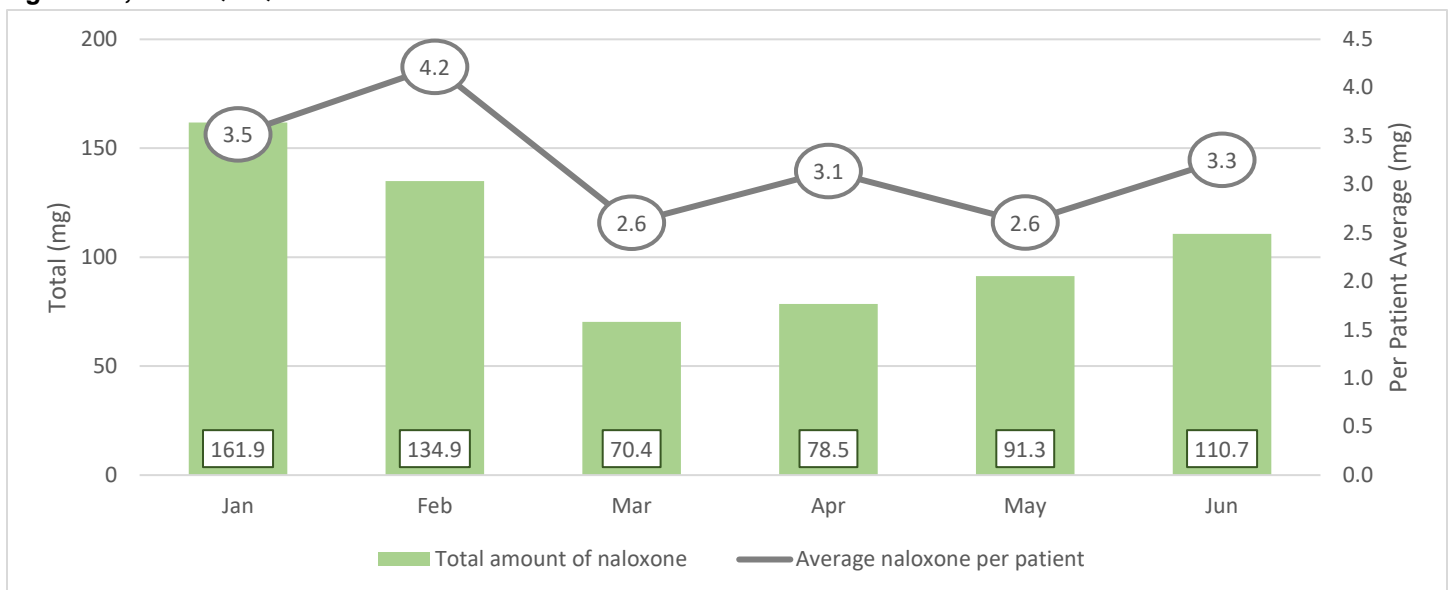
The total number of opioid overdose-related 911 responses in 2023 Q1-Q2 (N=518) was similar to 2022 Q1-Q2 (N=516). Figure 2 shows which months in 2023 had more responses than the same month in 2022.

Figure 2. Percent difference in monthly number of opioid-related 911 responses, Ground Transporting Agencies, 2023 Q1-Q2 vs 2022 Q1-Q2



Among the 199 opioid-related cases where naloxone administration was documented correctly, there were 252 naloxone doses documented with a total amount of **648 milligrams (mg)**—however, this total does not include data from records missing dosage information. The monthly average was **108 mg** (in 2022 the average was 111 mg per month). In January 2023, almost 162 mg of naloxone was used (Figure 3). An average of **3.25 mg** of naloxone was given per opioid overdose patient, higher than the average of 3.0 during 2022. 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, 2023 Q1-Q2





Opioid overdose-related 911 responses, Ground Transporting Agencies, Montana, 2023 Q1-Q2

	Q1	Q2	Q3	Q4	YTD	All %
Naloxone Administration						
No documentation of naloxone administration	170	149			319	62%
Naloxone administered, Response=Improved	83	76			159	31%
Naloxone administered, Response=Unchanged	17	16			33	6%
Naloxone administered, Response=No answer	5	2			7	1%
Patient Disposition						
Patient Transported by this EMS Unit	221	191			412	80%
Patient Treated/Evaluated, No Transport (per protocol)	21	22			43	8%
Patient Refusal, No Transport	27	23			50	9%
Patient Dead at Scene, No Transport	6	7			13	3%
Incident County NCHS Urban-Rural Classification						
Small Metro	103	116			219	42%
Micropolitan	78	50			128	25%
Non-core (Rural)	71	66			137	26%
Not Reported	23	11			34	7%
Patient Sex						
Female	126	113			239	46%
Male	147	129			276	53%
Not Reported	†	†			†	1%
Patient Age						
0-17 Years	†	†			7	1%
18-24 Years	35	27			62	12%
25-44 Years	153	130			283	55%
45-64 Years	58	56			114	22%
65+ Years	24	24			48	9%
Not Reported	†	†			†	1%
Patient Race*						
American Indian or Alaska Native	60	66			126	24%
Asian	0	0			0	0%
Black or African American	4	1			5	1%
Hispanic or Latinx	7	5			12	2%
Native Hawaiian or Other Pacific Islander	2	0			2	0%
White	152	117			269	52%
Other Race	6	15			21	4%
Race Not Listed	46	41			87	17%
Total	275	243			518	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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Repeat patients experiencing an opioid overdose-related GTA 911 response, Montana, 2023 Q1-Q2

Number of opioid overdose-related GTA 911 responses	1	2	3	4	Patient name missing	Total
Number of Patients	447	24	4	2	3	477

During 2023 Q1-Q2, there were 24 patients with two opioid overdose-related GTA 911 responses, and 6 patients with three or more.

Opioid overdose-related GTA 911 responses with naloxone documentation, Montana, 2023 Q1-Q2

Incident County	Opioid Overdose related GTA 911 Responses	Naloxone administration documented correctly*	Naloxone term mentioned in narrative only	% with naloxone documented correctly (B/A*100)	% with any mention of naloxone [(B+C)/A]*100
	A	B	C		
BEAVERHEAD	3	2	0	67%	67%
BIG HORN	8	3	1	38%	50%
BLAINE	2	0	0	0%	0%
CARBON	3	0	1	0%	33%
CASCADE	69	19	25	28%	64%
CHOUTEAU	1	1	0	100%	100%
CUSTER	7	3	2	43%	71%
FERGUS	2	0	2	0%	100%
FLATHEAD	54	18	19	33%	69%
GALLATIN	28	10	14	36%	86%
GLACIER	14	8	2	57%	71%
HILL	3	1	1	33%	67%
JEFFERSON	1	0	0	0%	0%
LAKE	37	13	12	35%	68%
LEWIS & CLARK	23	11	8	48%	83%
LINCOLN	5	1	2	20%	60%
MINERAL	3	1	1	33%	67%
MISSOULA	61	14	24	23%	62%
MUSSELSHELL	2	2	0	100%	100%
PARK	3	2	1	67%	100%
PONDERA	2	1	0	50%	50%
POWELL	7	6	1	86%	100%
RAVALLI	10	5	2	50%	70%
ROOSEVELT	11	3	4	27%	64%
ROSEBUD	2	0	1	0%	50%
SANDERS	7	5	0	71%	71%
SHERIDAN	4	1	1	25%	50%
SILVER BOW	22	9	10	41%	86%
TOOLE	3	2	0	67%	67%
VALLEY	1	0	0	0%	0%
YELLOWSTONE	86	44	18	51%	72%
~NOT STATED	34	14	12	41%	76%
All	518	199	164	38%	70%

*Must be documented in eMedications fields, please visit [NEMIS 3.4 data dictionary](#) or EMSTS documentation guidelines ([video/PDF](#)) on overdose-related EMS incidents