

# *EMS Data Updates*

Presented by: CDPHE EMTS Data Section  
RMD February 13, 2023



# Topics

- EMS system sustainability task force
  - Agency breakdowns
  - Workforce analysis
  - Response times
- Opioid Overdose
  - Biospatial
  - NHTSA/NEMSIS tracker



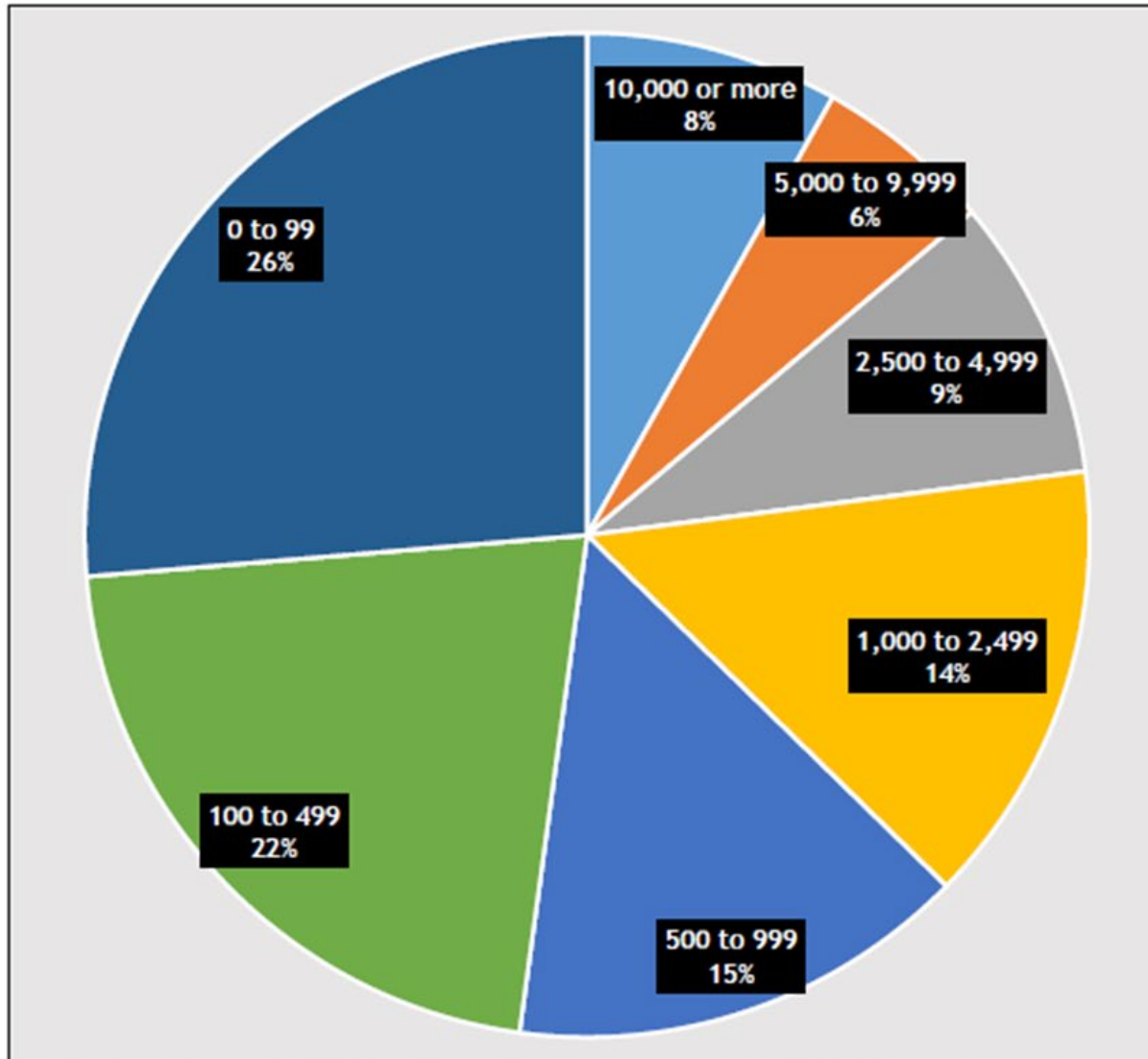
# COLORADO

Health Facilities & Emergency  
Medical Services Division

Department of Public Health & Environment

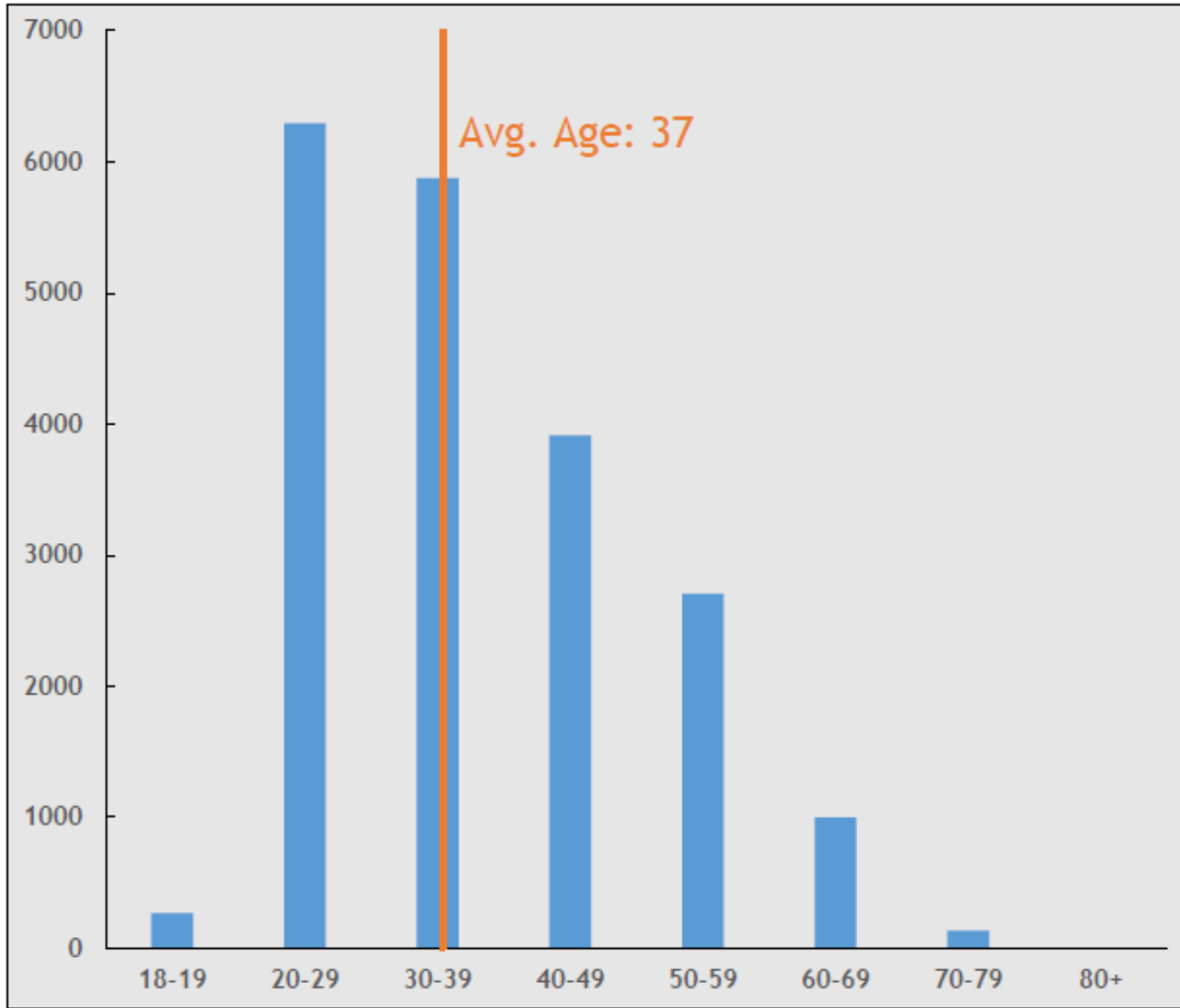
Percentages of Services by  
Count of Responses 2022<sup>[1]</sup>

For and Released To:  
EMS System and Sustainability  
Task Force



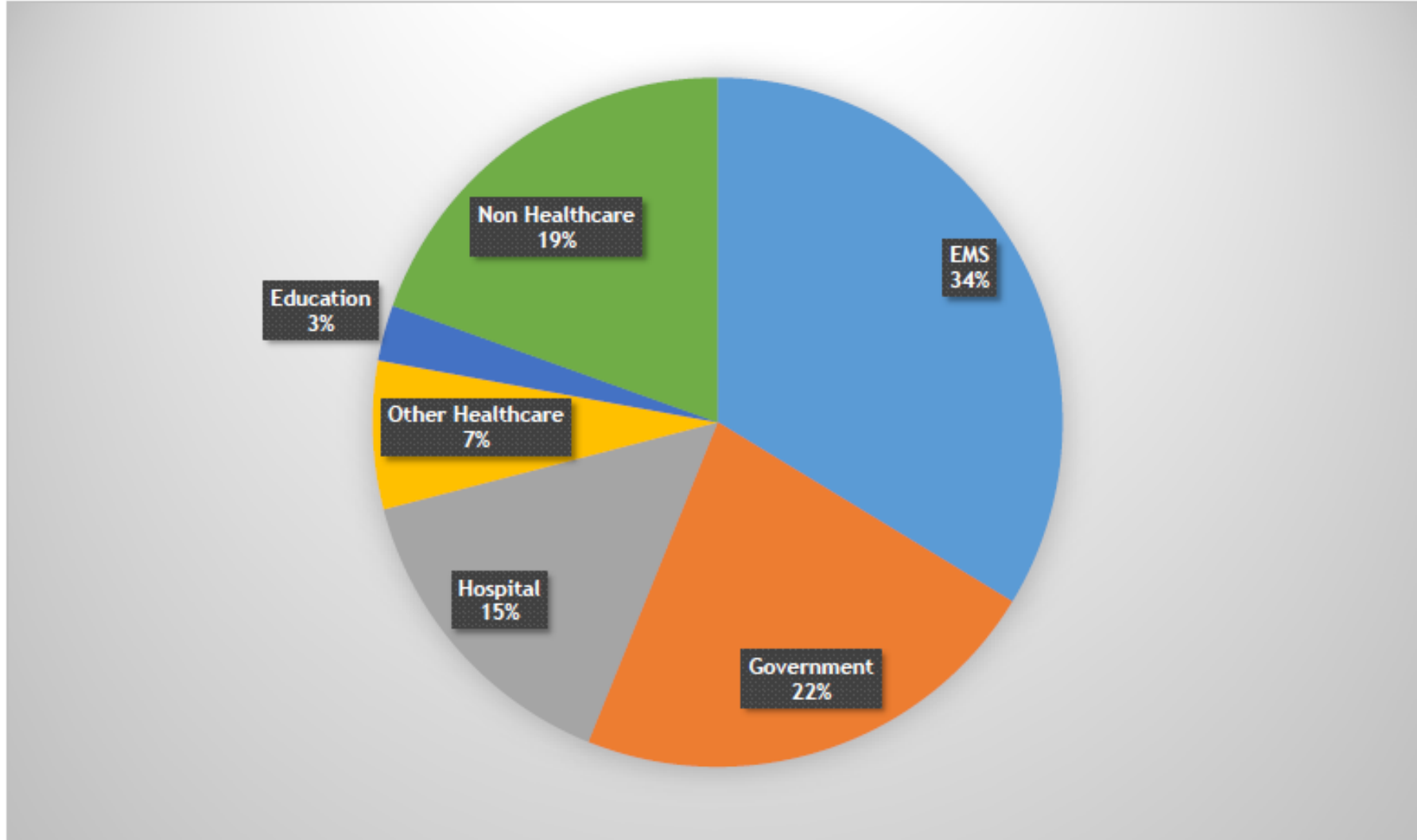
Count of Responses	Percentage of Services (N=209)
10,000 or more	8%
5,000 to 9,999	6%
2,500 to 4,999	9%
1,000 to 2,499	14%
500 to 999	15%
100 to 499	22%
0 to 99	26%

<sup>[1]</sup> Patient Care Reports (PCRs) from licensed ambulance agencies included this report if incident occurred between 7/1/2021-6/30/2022, AND incident state is equal to Colorado (GNIS=08). Duplicates were identified and removed utilizing patient care report number and unique agency ID. (Patient care report N=754,861)



Certification/License Level	Average Age
EMT	36
Advanced EMT	38
EMT-Intermediate	49
Paramedic	41
Paramedic with Critical Care Endorsement	36
Paramedic with Community Paramedic Endorsement	47
Paramedic with Critical Care Endorsement & Community Paramedic Endorsement	37

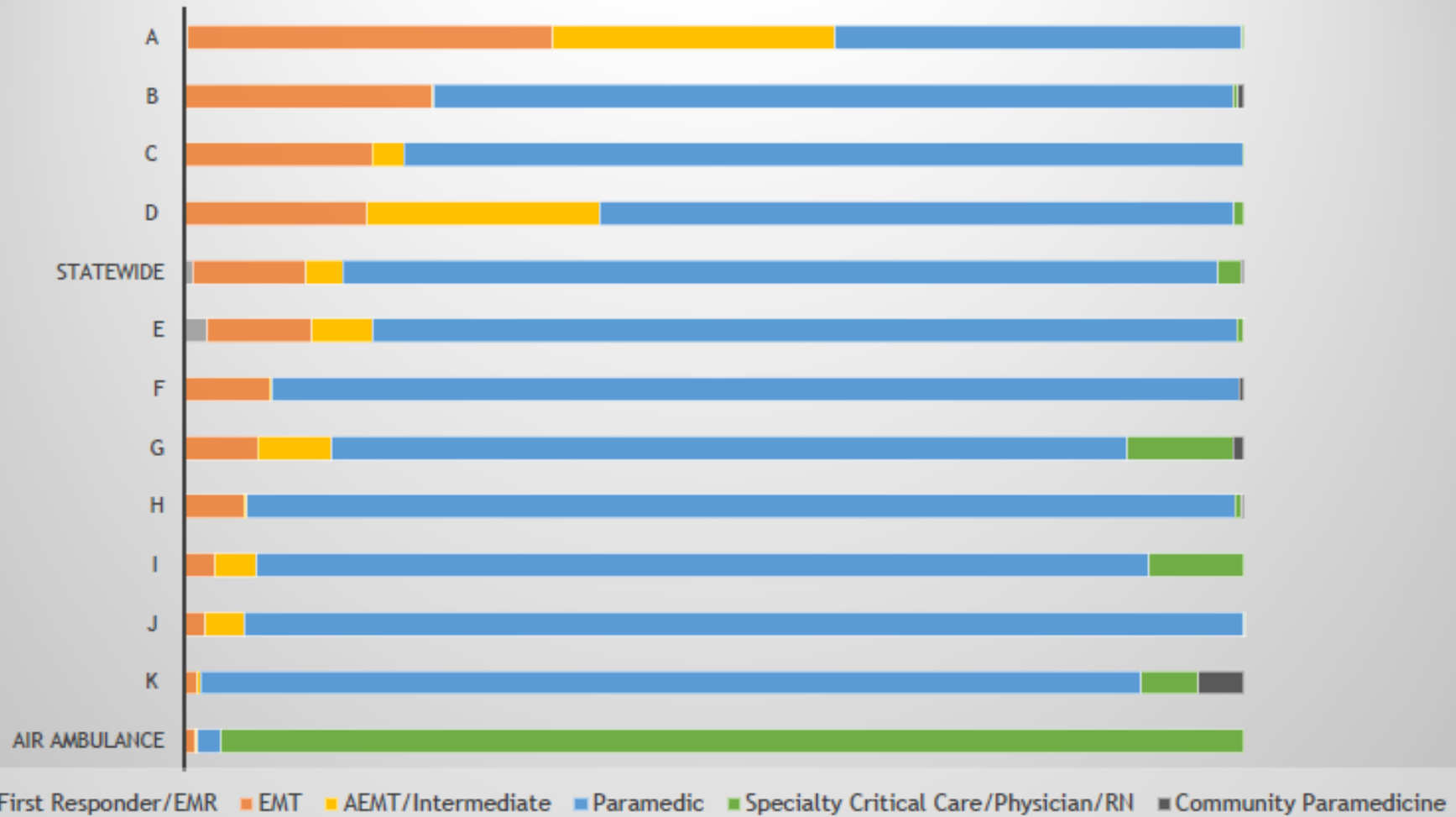
<sup>[1]</sup> EMS providers certified or licensed in Colorado as of 12/7/2022. (N=20,194)



<sup>[1]</sup> EMS providers certified or licensed in Colorado and linked with Labor and Wage database with valid employer listed Q3 2022. (N=15,585 of 20,521)



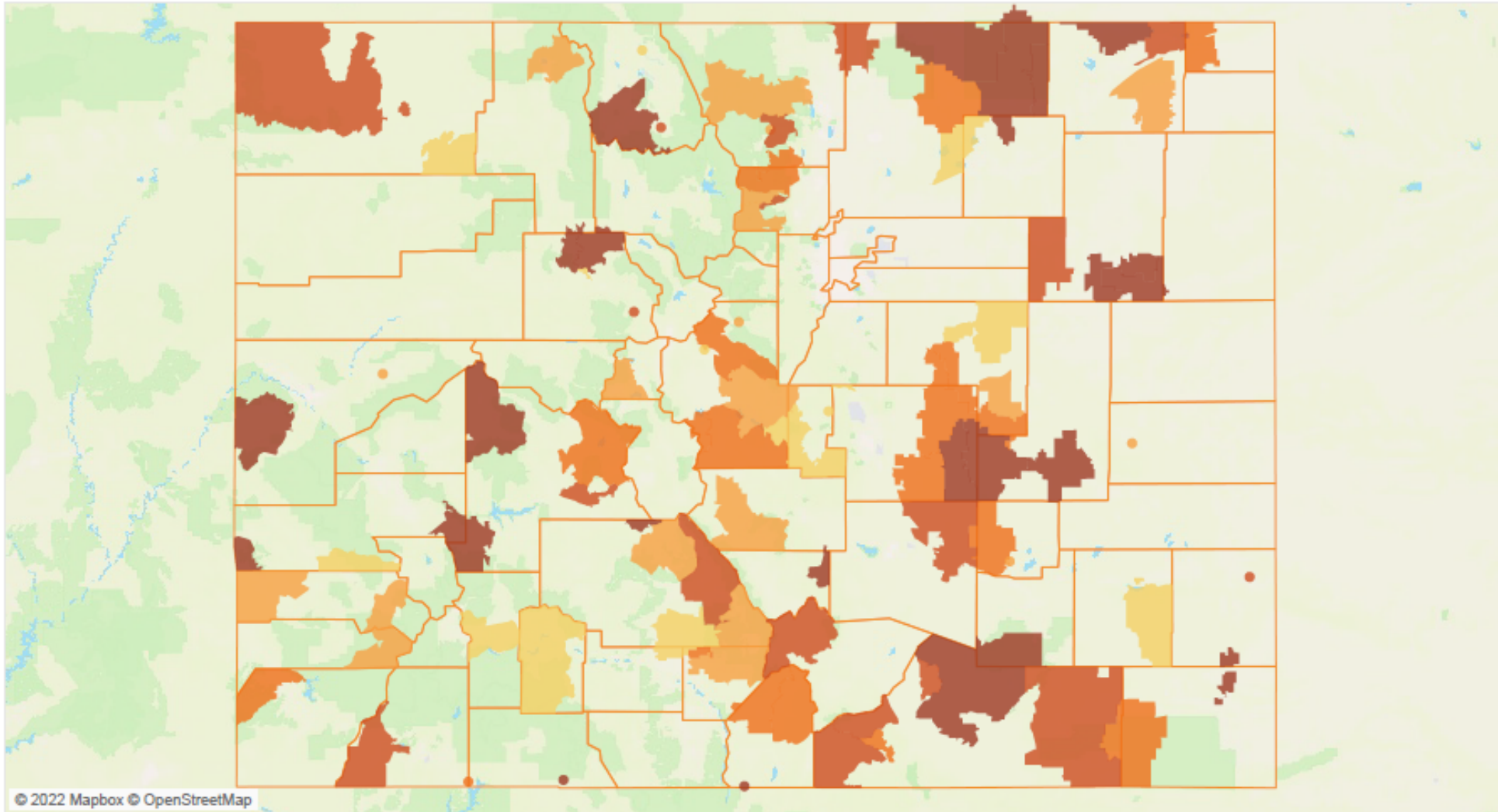
## Percentage of Responses by Unit Capability and RETAC<sub>[1]</sub>



[1] Patient Care Reports (PCRs) from licensed ambulance agencies included this report if incident occurred between 7/1/2021-6/30/2022, AND incident state is equal to Colorado (GNIS=08). Duplicates were identified and removed utilizing patient care report number and unique agency ID. (N=754,861)



Colorado Zip Codes with More than Half of  
 Responses Exceeding 18 Minutes



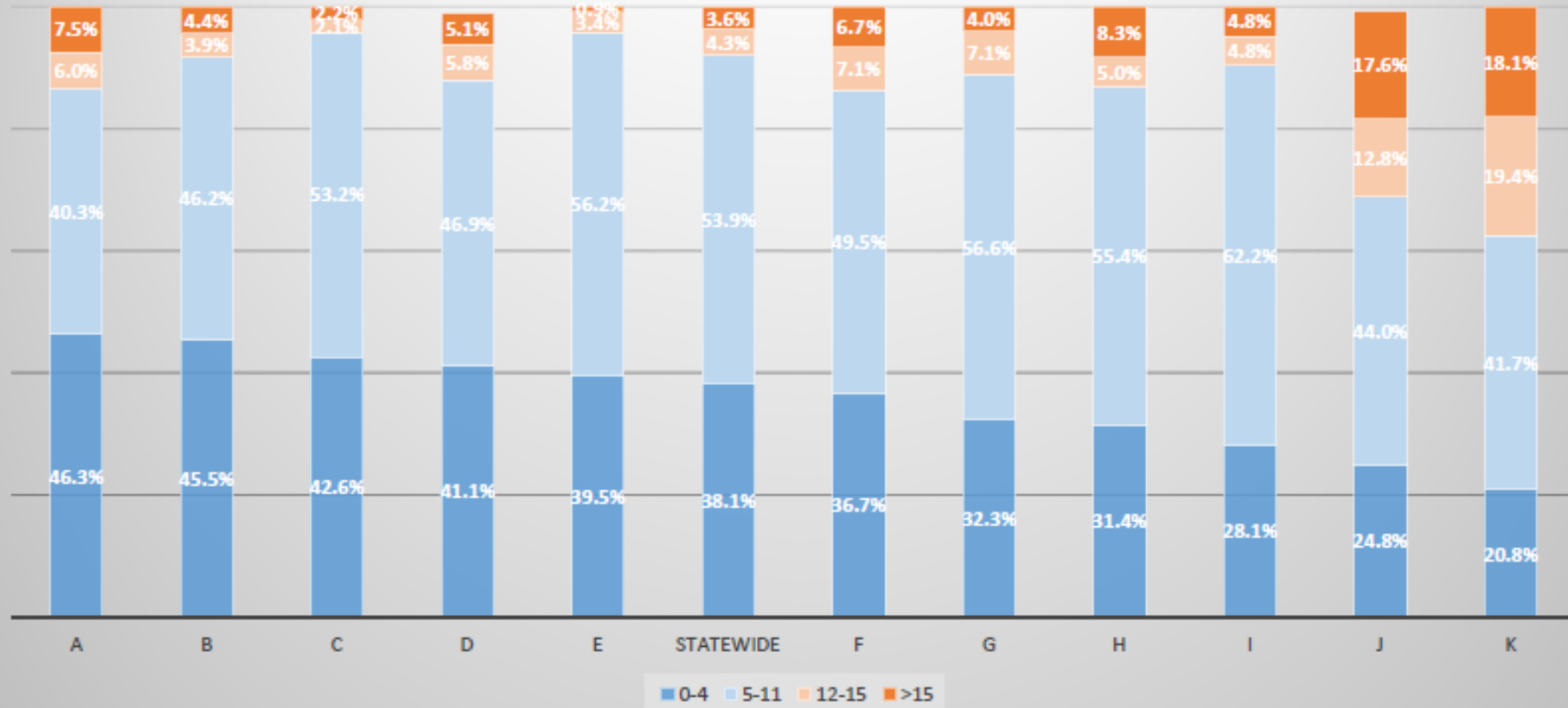
© 2022 Mapbox © OpenStreetMap

50% of Responses  100% of Responses

<sup>1</sup>Patient Care Reports (PCRs) from licensed ambulance agencies were included in this report if the incident occurred between 7/1/2021-6/30/2022, AND the incident state is equal to Colorado (GHIS=08). Duplicates were identified and removed utilizing patient care report number and unique agency ID. Response times in minutes were calculated from the time the unit was notified by dispatch to when they arrived on scene. Analysis threshold of greater than 18-minute response time was calculated as 2 standard deviations greater than the statewide average response time (7.6 minutes). PCRs with missing or invalid zip codes, dates or times were excluded, as well as response times >24 hours and 0.01% of top response times to control for outliers. Zip codes with <5 total responses documented were excluded (N=554,223)



## Cardiac Arrest Response Time Categories by RETAC



[1] Patient Care Reports (PCRs) from licensed ground ambulance agencies included this report if incident occurred between 7/1/2021-6/30/2022, AND incident state is equal to Colorado (GNIS=08) AND Cardiac Arrest equals yes, before or after EMS arrival AND Resuscitation was attempted and/or patient was transported. Duplicates were identified and removed utilizing patient care report number and unique agency ID. (N=5,037)



# Opioid Data



Categorical syndrome definition based on Enhanced State Opioid Overdose Surveillance (ESOOS) criteria as defined by the state of Florida, intended to detect incidents involving opioid-related overdoses. The criteria are defined as follows:

Labeled as opioid overdose if **any** of the following are true:

- Naloxone (or brand names) listed as medication administered (E18\_03; eMedications.03) **AND** medication response (E18\_07; eMedications.07) is "Improved".
- Provider primary/secondary impression (E09\_15, E09\_16; eSituation.11, eSituation.12) is any of 977.90 (ICD-9) F11, T40.1-T40.4, T40.60, T40.69 (sub-codes included) **AND** either of the following are true:
  - Naloxone (or brand names) listed as medication administered (E18\_03; eMedications.03).
  - Narrative (E13\_01; eNarrative.01) contains "Narcan" or "naloxone" **AND** narrative (E13\_01; eNarrative.01) contains one of the following unresponsive search terms: "unresponsive", "apneic", "apnea", "semi-cons", "semi cons", "uncons", "agonal".
  - Narrative (E13\_01; eNarrative.01) **OR** chief complaint (E09\_05; eSituation.04) contain "opioid", "opiate", "opium", "fentanyl", "heroin", "speedball", "speed ball", "spheroin", or "hod".
- Naloxone (or brand names) listed as medication administered (E18\_03; eMedications.03) **AND** medication response (E18\_07; eMedications.07) is not entered **AND** either of the following are true:
  - Narrative (E13\_01; eNarrative.01) contains "Narcan" or "naloxone" **AND** narrative (eNarrative.01) contains one of the following unresponsive search terms: "unresponsive", "apneic", "apnea", "semi-cons", "semi cons", "uncons", "agonal".
  - Narrative (E13\_01; eNarrative.01) **OR** chief complaint (E09\_05; eSituation.04) contain "opioid", "opiate", "opium", "fentanyl", "heroin", "speedball", "speed ball", "spheroin", or "hod".

**NOTE:** Common misspellings and other variants of terms are considered when checking the narrative or chief complaint elements.

# Suspected Overdoses

## Suspected Overdoses

2,159

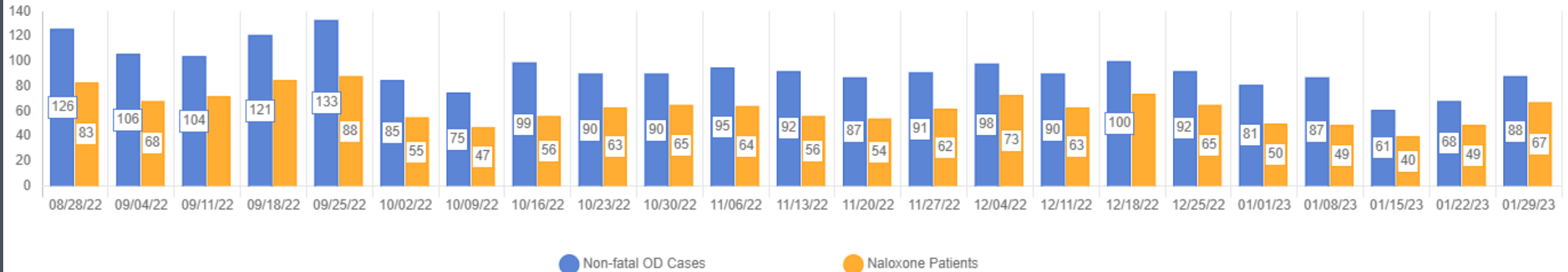
2023 YTD: 405

## Incident Counties

43

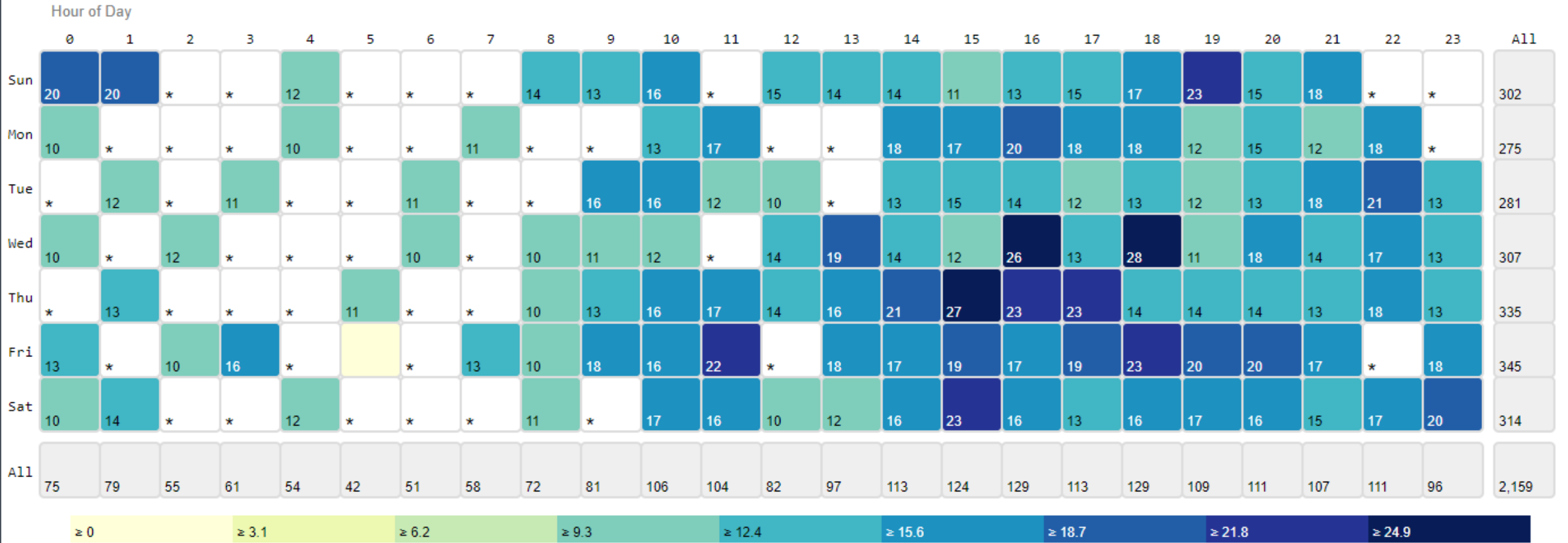
2023 YTD: 20

Suspected OD Cases by Event Date  
2022-Aug-28 to 2023-Feb-04  
Total Suspected OD Cases: 2,159. Total Naloxone Patients: 1,448

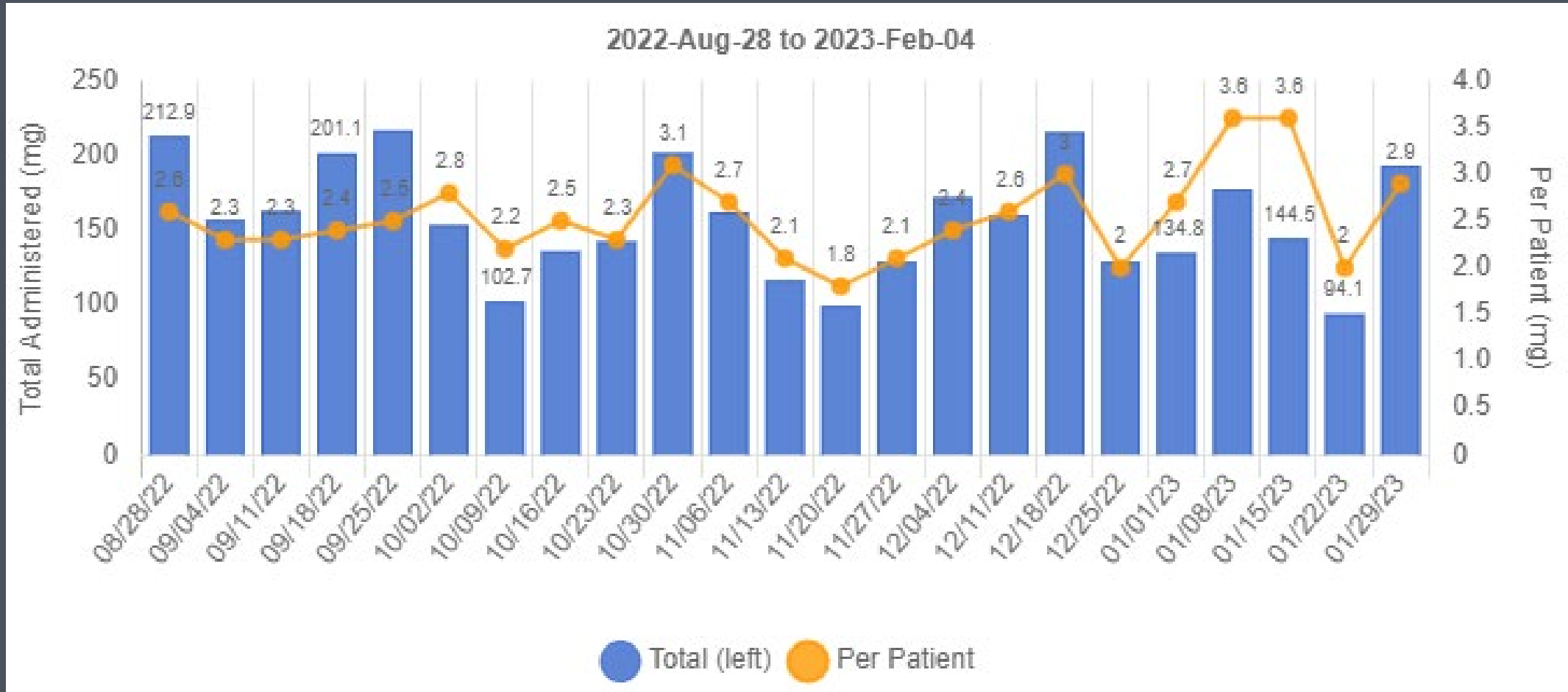


# Suspected Overdoses by Day and Hour

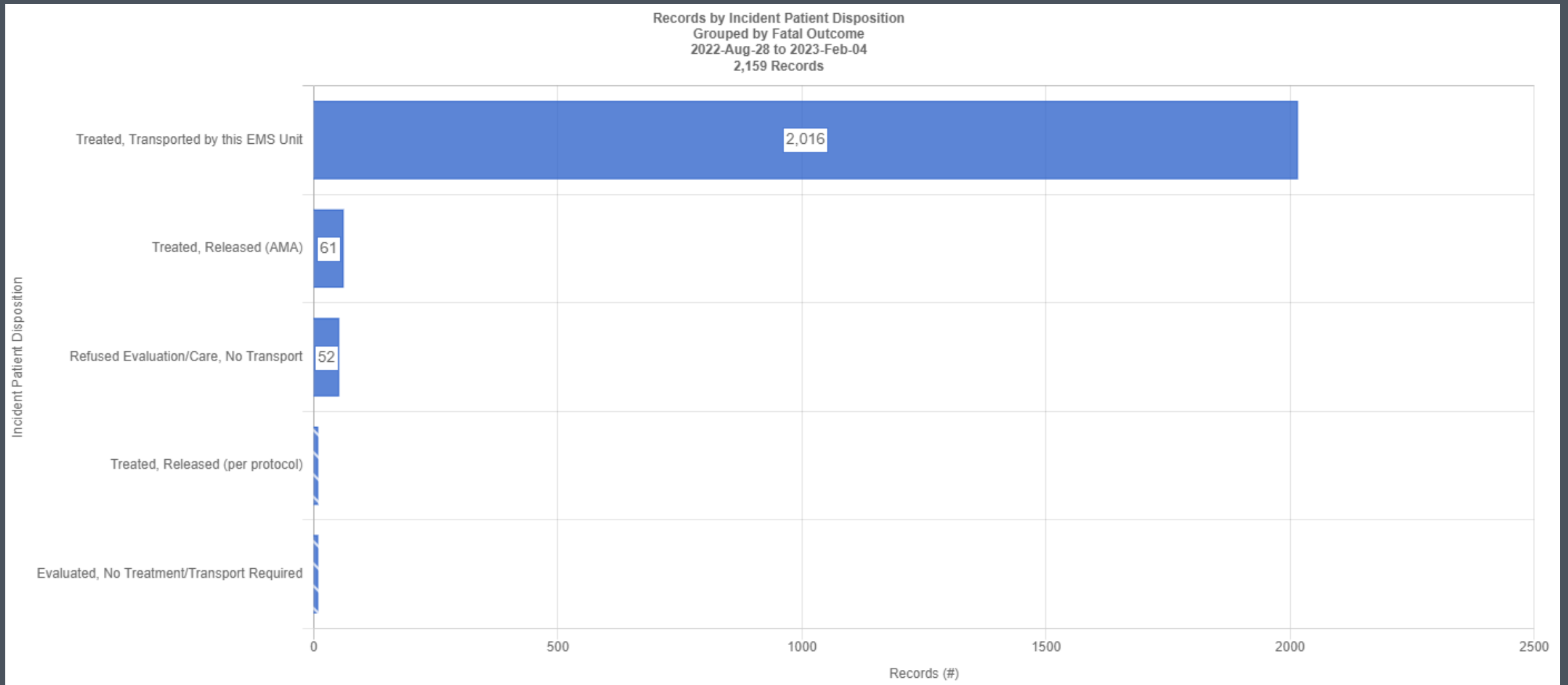
Suspected Overdoses by Day and Hour (Total Count)  
Event Local Date: 2022-Aug-28 to 2023-Feb-04



# Milligrams Naloxone Administered

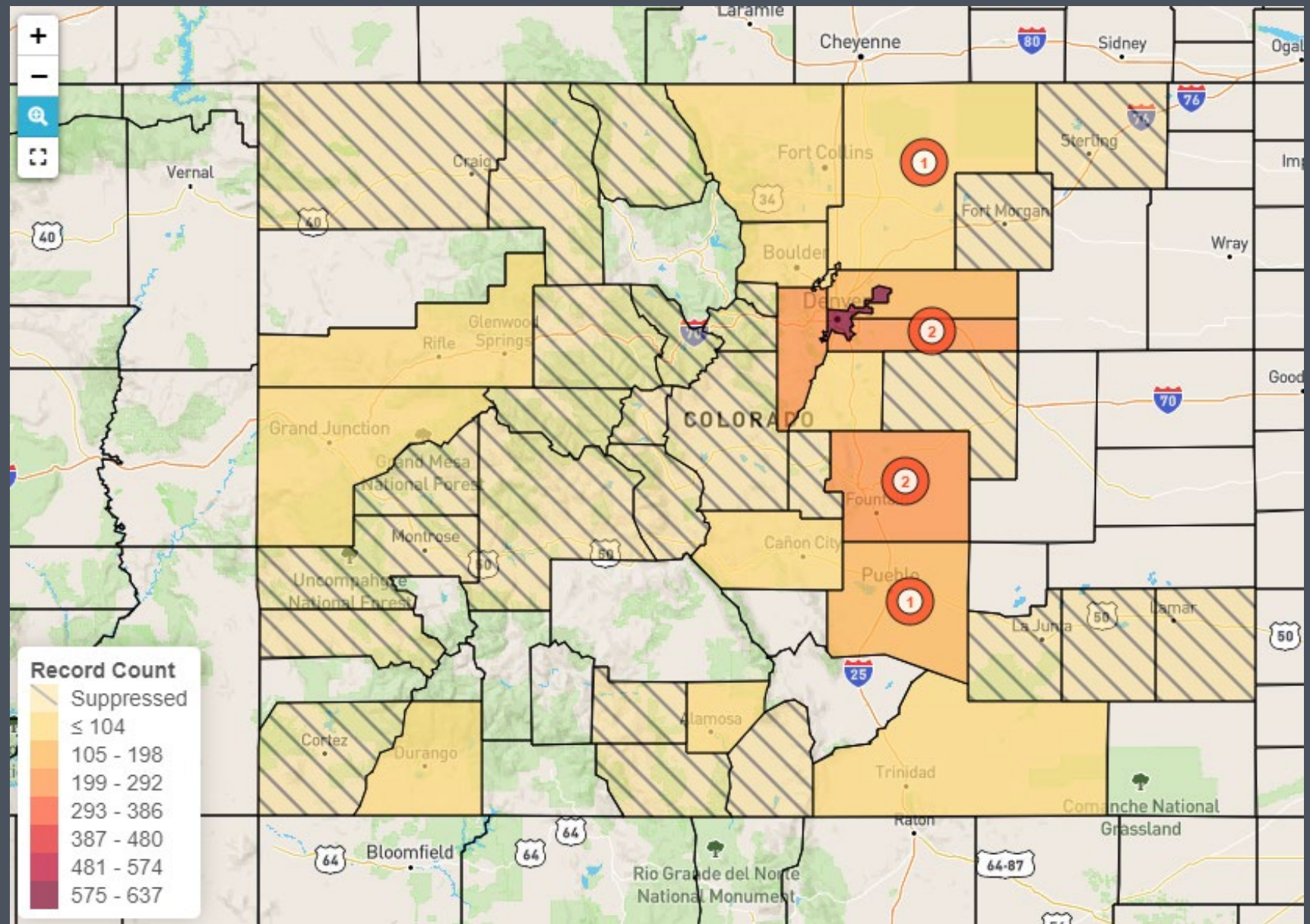


# Records by Incident Patients Disposition





# Overdose Map





# White House Opioid Overdose Tracker



## Non-Fatal Opioid Overdose Surveillance Dashboard

January 23, 2022 – January 22, 2023

EMS Data Updated On: February 7, 2023

Select Time Period:  Select Jurisdiction:  Select Level of Geographic Detail:  Select an Overdose Measure:

Average EMS Time to Patient		Number of Opioid Overdoses		Rate of Nonfatal Opioid Overdose per 100k Population		Average Number of Naloxone Administrations per Overdose		Patients Not Transported to a Medical Facility	
Rolling 365 Days	% Change	Rolling 365 Days	% Change	Rolling 365 Days	% Change	Rolling 365 Days	% Change	Rolling 365 Days	% Change
9.8 minutes	+1.6%	184,903	-1.3%	56.1	-1.3%	1.1	-0.5%	21.2%	+4.0%

### Top Jurisdictions

Rate of Nonfatal Opioid Overdose

District of Columbia

Connecticut

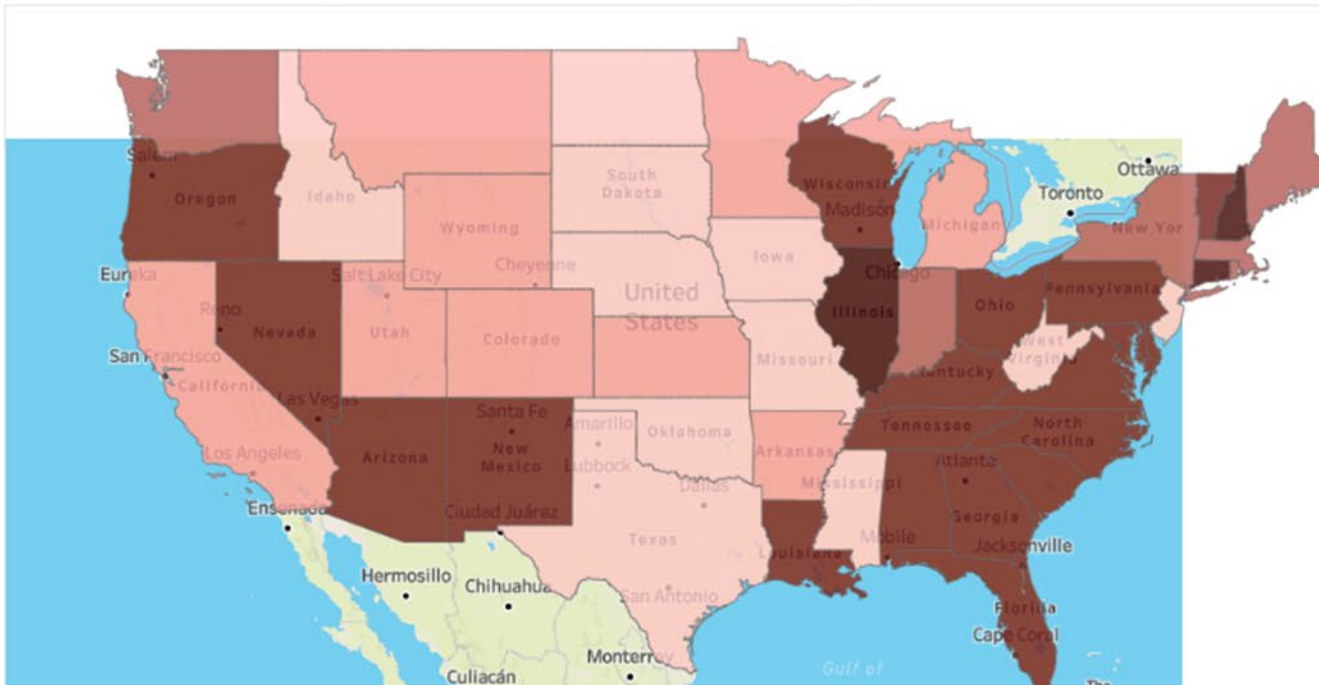
New Hampshire

Illinois

Delaware

Alabama

New Mexico



### Top Counties

Rate of Nonfatal Opioid Overdose

Menominee, Wisconsin

Roanoke (city), Virginia

Mahnomen, Minnesota

Jasper, South Carolina

Walker, Alabama

Orleans, Louisiana

Carroll, Kentucky

Jefferson Davis, Louisiana

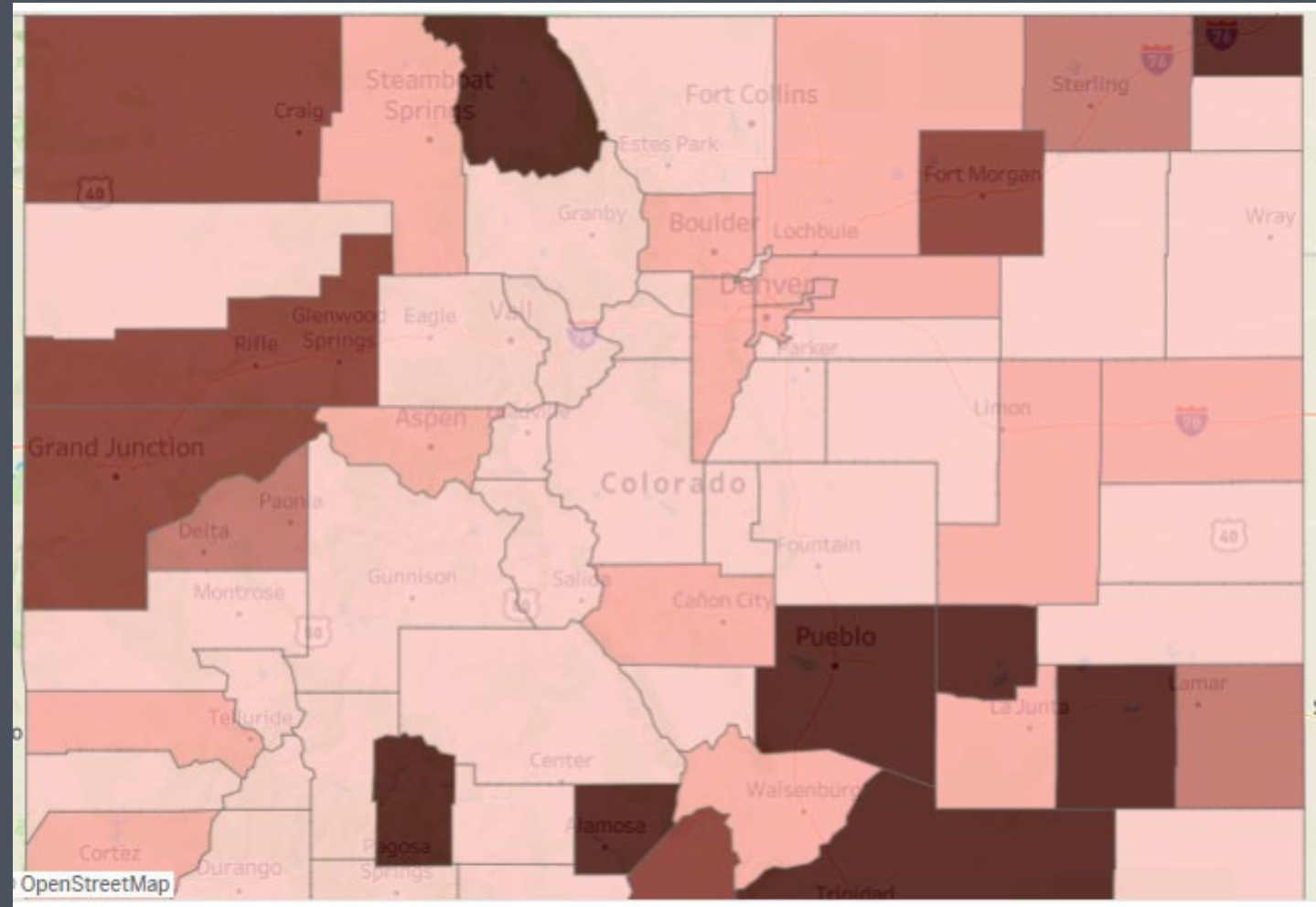
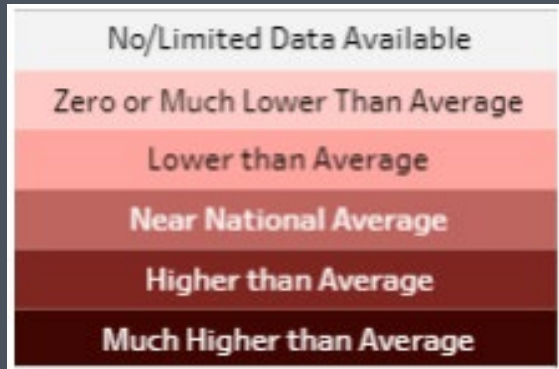
Philadelphia, Pennsylvania



**COLORADO**  
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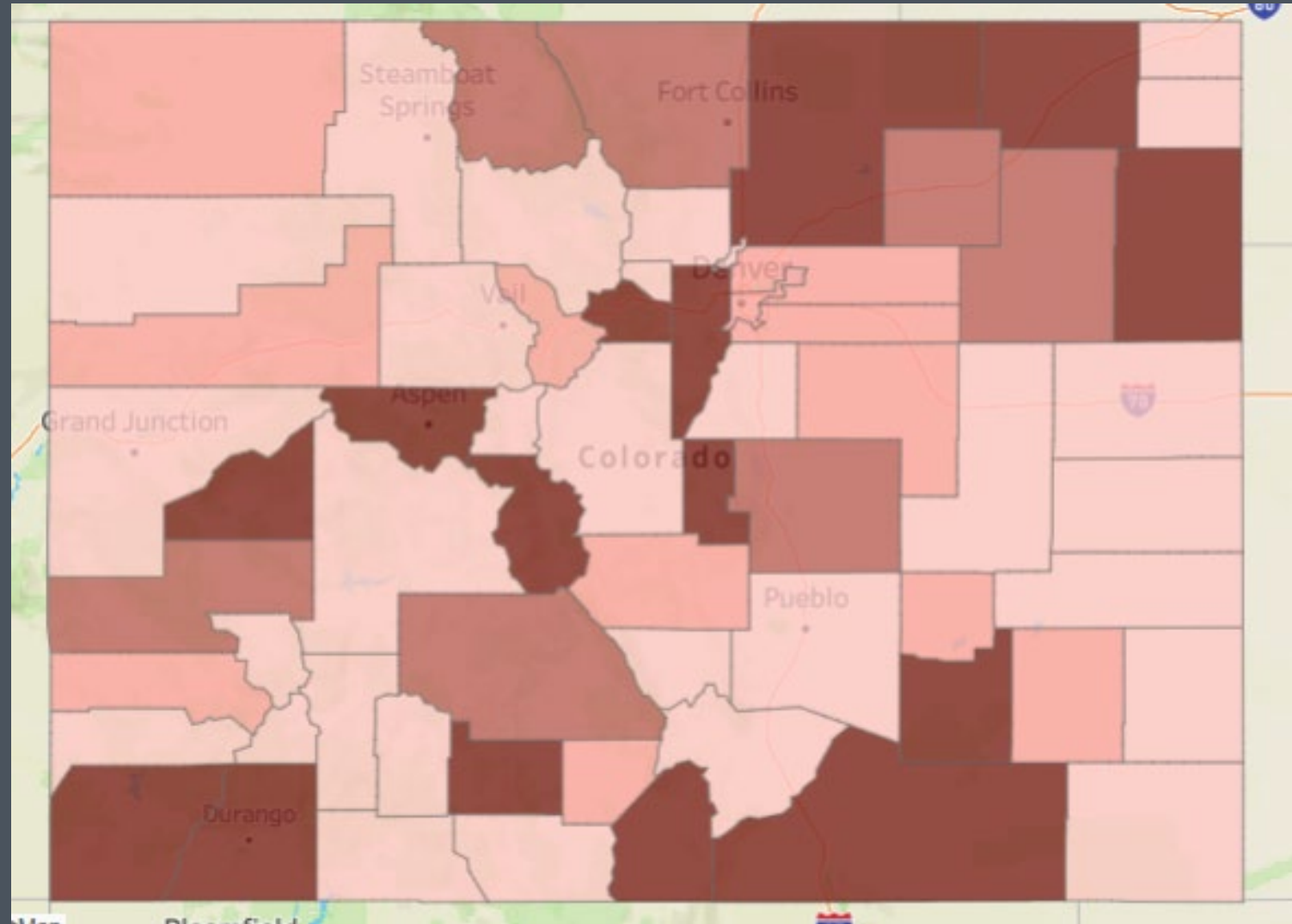
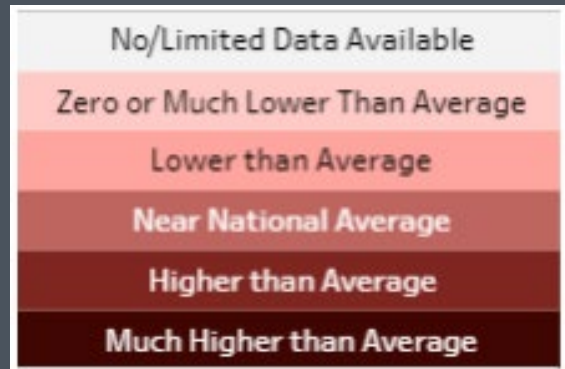


# Rate of Nonfatal Opioid Overdose



<https://nemsis.org/opioid-overdose-tracker/>

# Average # of Naloxone Administrations per Overdose Patient



<https://nemsis.org/opioid-overdose-tracker/>

# Contact Information

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