Introduction

The goal of the Heat-Related EMS Activation Surveillance Dashboard is to track heat-related events in the pre-hospital setting using nationally submitted Emergency Medical Services (EMS) data. The dashboard contains one interactive page with a geo-surveillance view and a second page which displays patient characteristics.

The data set for this dashboard includes all deduplicated EMS patient care reports (PCRs) for a rolling time period that meet the following inclusion criteria for a heat-related event in the pre-hospital setting. In 2023, there are 50 states and 3 territories (Virgin Islands, Guam, and Northern Mariana Islands), and the District of Colombia, submitting data to the national database.

Based on estimates provided by state EMS authorities, the NEMSIS Technical Assistance Center (TAC) collects data from approximately 95% of all EMS agencies in the U.S. that respond to 911 requests for emergency care and transport patients to acute care facilities. The NEMSIS TAC receives records for 75% of all patient contacts that occur on any given day in the U.S., within approximately 10 days. Over 90% of all patient care reports are received within 2 weeks of patient contact.

Inclusion Criteria

This data set represents patients who were suspected of experiencing a heat-related emergency event when initially treated by an EMS clinician. This data set includes the following inclusion or exclusion criteria. For details on each data element, its code, and range of values, please see the NEMSIS Version 3.4 Data Dictionary found at: DEM/EMS Data Dictionary. Additional descriptions of these values are available in this NEMSIS v3 Extended Data Definitions document. Please see ICD-10 Data for more information on diagnosis and procedure codes.

Patient Care Reports WHERE:

eSituation.09: Primary Symptom - the primary sign and symptom present in the patient or observed by EMS personnel OR

eSituation.10: Other Associated Symptoms- other symptoms identified by the patient or observed by EMS personnel OR

eSituation.11: Provider’s Primary Impression- The EMS personnel's impression of the patient's primary problem or most significant condition which led to the management given to the patient (e.g., treatments, medications, or procedures) OR

eSituation.12-Provider’s Secondary Impressions- The EMS personnel's impression of the patient's secondary problem or significant condition which led to the management given to the patient (e.g., treatments, medications, or procedures)

Include at least one of the following:

- T67 Effects of heat and light
- 0 Heatstroke and sunstroke
- 01 Heatstroke and sunstroke
- 01XA initial encounter
- 01XD Heatstroke and sunstroke, subsequent encounter
- 01XS sequela
- 02 Exertional heatstroke
- 02XA initial encounter
- 02XD subsequent encounter
- 02XS sequela
- 09 Other heatstroke and sunstroke
- 09XA Other heatstroke and sunstroke, initial encounter
- 09XD Other heatstroke and sunstroke, subsequent encounter
- 09XS sequela
- 1 Heat syncope
- 1XXA initial encounter
- 1XXD subsequent encounter
- 1XXS sequela
- 2 Heat cramp
- 2XXA initial encounter
- 2XXD subsequent encounter
- 2XXS sequela
- 3 Heat exhaustion, anhydrotic
- 3XXA Heat exhaustion, anhydrotic, initial encounter
- 3XXD Heat exhaustion, anhydrotic, subsequent encounter
- 3XXS sequela
- 4 Heat exhaustion due to salt depletion
- 4XXA Heat exhaustion due to salt depletion, initial encounter
- 4XXD Heat exhaustion due to salt depletion, subsequent encounter
- 4XXS sequela
- 5 Heat exhaustion, unspecified
- 5XXA Heat exhaustion, unspecified, initial encounter
- 5XXD Heat exhaustion, unspecified, subsequent encounter
- 5XXS sequela
- 6 Heat fatigue, transient
- 6XXA initial encounter
- 6XXD Heat fatigue, transient, subsequent encounter
- 6XXS sequela
- 7 Heat edema
- 7XXA initial encounter
- 7XXD subsequent encounter
- 7XXS sequela
- 8 Other effects of heat and light
- 8XXA Other effects of heat and light, initial encounter
- 8XXD Other effects of heat and light, subsequent encounter
- 8XXS sequela
- 9 Effect of heat and light, unspecified
- 9XXA Effect of heat and light, unspecified, initial encounter
- 9XXD Effect of heat and light, unspecified, subsequent encounter
- 9XXS Effect of heat and light, unspecified, sequela

- X30 - Exposure to excessive natural heat
- XXXA Exposure to excessive natural heat, initial encounter
- XXXD Exposure to excessive natural heat, subsequent encounter
- XXXS Exposure to excessive natural heat, sequela

- X32 - Exposure to sunlight
- XXXA Exposure to sunlight, initial encounter
- XXXD Exposure to sunlight, subsequent encounter
- XXXS Exposure to sunlight, sequela

- L55 - Sunburn
- 0 Sunburn of first degree
- 1 Sunburn of second degree
- 2 Sunburn of third degree
- 9 Sunburn, unspecified

Note: Fatal heat-related events are identified where:
Resuscitation Attempted by EMS [eArrest.03] is

- 3003007 Not Attempted-Considered Futile
- 3003009 Not Attempted-DNR Orders
- 3003011 Not Attempted-Signs of Circulation
Any Return of Spontaneous Circulation [eArrest.12] is
  • 3012001 No

Reason CPR/Resuscitation Discontinued [eArrest.16] is
  • 3016001 DNR
  • 3016005 Obvious Signs of Death

Cardiac Rhythm on Arrival at Destination [eArrest.17] is
  • 9901001 Agonal/Idioventricular
  • 9901003 Asystole
  • 9901035 PEA

End of EMS Cardiac Arrest Event [eArrest.18] is
  • 3018003 Expired in the Field

Incident/Patient Disposition [eDisposition.12] is
  • 4212013 Patient Dead at Scene-No Resuscitation Attempted (With Transport)
  • 4212015 Patient Dead at Scene-No Resuscitation Attempted (Without Transport)
  • 4212019 Patient Dead at Scene-Resuscitation Attempted (Without Transport)

Incident/Patient Disposition [eDisposition.12] is
  • 4212027 Patient Treated, Released (AMA)
  • 4212029 Patient Treated, Released (per protocol)

Incident/Patient Disposition [eDisposition.12] is
  • 4212035 Patient Treated, Transported by Law Enforcement
  • 4212037 Patient Treated, Transported by Private Vehicle

Final Patient Acuity [eDisposition.19] is
  • 4219007 Dead without Resuscitation Efforts (Black)

Type of Destination [eDisposition.21] is
  • 4221009 Morgue/Mortuary

Initial Patient Acuity [eSituation.13] is
  • 2813007 Dead without Resuscitation Efforts (Black)

**Deduplication**

Duplicate records have been removed when possible. The rates represented include individual and unique incidents. Duplicate PCRs are excluded by including only reports for the following element values. These values were selected to limit heat-related emergency events overdose as closely as possible to "patient events". This is done by identifying elements that allow for the removal of duplicate records.

<table>
<thead>
<tr>
<th>NEMSIS Element</th>
<th>Element Description</th>
<th>Code Description</th>
<th>Code Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>eResponse.07</td>
<td>Primary Role of the Unit</td>
<td>Ground Transport</td>
<td>2207003</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Treated, Released (AMA)</td>
<td>4212027</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Treated, Released (per protocol)</td>
<td>4212029</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Treated, Transported by Law Enforcement</td>
<td>4212035</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Treated, Transported by Private Vehicle</td>
<td>4212037</td>
</tr>
</tbody>
</table>

Duplicate PCRs are excluded by including only reports where:

First EMS Unit on Scene [eScene.01]
• 9923003 Yes

OR

First EMS Unit on Scene [eScene.01]
• 7701003 Not Recorded

AND

Incident/Patient Disposition [eDisposition.12]
• 4212031 Patient Treated, Transferred Care to Another EMS Unit

Data Collection and Distribution

Data included in this dashboard are collected from the National Emergency Medical Services Information System (NEMSIS), which is supported by the National Highway Traffic Safety Administration (NHTSA) Office of Emergency Medical Services (OEMS). States and territories across the nation submit EMS data to the NEMSIS Technical Assistance Center (TAC). The TAC receives the data and stores it in the National EMS Database. The NEMSIS data set represents a large sample of EMS activations currently collected from 50 states and 3 territories (Virgin Islands, Guam, and Northern Mariana Islands), and the District of Colombia, submitting data to the national database. More information about NEMSIS can be found at: https://nemsis.org/.

State/Territory Offices of EMS electronically submit to the TAC de-identified data from patient care reports (PCRs) that have been generated by local EMS agencies. The data set does not contain protected health information (PHI) or personally identifiable information (PII). Participating states and territories sign a Data Use Agreement which releases the data to be used and distributed by NEMSIS. The DUA signed by states can be found at: Sample DUA

More information about the DUA, data sharing, and HIPAA compliance can be found here: Data Sharing.

Definitions

Time Anchor

A rolling 14-day rate is calculated using eTimes.03, which shows the day and time when the 911 call was made and EMS services were dispatched. The rate starts 16 days in the past. Rolling 30-day rates start with the date 32 days in the past. Average time to patient eTimes.07 (Arrived at Patient Date/Time) - eTimes.01 (PSAP Call Date/Time) as averaged across the previous 14-days is displayed in minutes. Although records can be received in as little as 7 minutes, there is sometimes a delay in reporting from states. To account for this, we adjust the inclusion date criteria to only include records submitted prior to the Friday before the data are published on the dashboard. Therefore, the 14-day time period is 14 days prior to the Friday before the data are published.

Percent Change

Percent change is based on the preceding two-weeks and preceding four-weeks for both counts and rates.

Population Estimates

Population estimates were obtained from the 2022 United States Census Bureau data set. The Uniform Data System (UDS) was also used to obtain county and state populations. All of the ZCTAs inside a county were added to find the county population. More information can be found at the following URLs:

https://data.sandiegodata.org/dataset/census-gov-zcta-county/

https://udsmapper.org/zip-code-to-zcta-crosswalk/


Counties Removed

The following counties were not included in the dashboard due to either insufficient data collected, no EMS services available, or no data submitted to NEMSIS.

<table>
<thead>
<tr>
<th>State</th>
<th>County Name</th>
<th>County FIPS Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK</td>
<td>Aleutians East Borough</td>
<td>02013</td>
</tr>
<tr>
<td>AK</td>
<td>Copper River Census Area</td>
<td>02066</td>
</tr>
<tr>
<td>AK</td>
<td>Kodiak Island Borough</td>
<td>02150</td>
</tr>
<tr>
<td>AK</td>
<td>Yukon-Koyukuk Census Area</td>
<td>02290</td>
</tr>
<tr>
<td>AK</td>
<td>Lake and Peninsula Borough</td>
<td>02164</td>
</tr>
<tr>
<td>AK</td>
<td>Kusilvak Census Borough</td>
<td>02158</td>
</tr>
</tbody>
</table>
Transportation to a Medical Facility

This is determined by an EMS Patient Care Report (PCR) which shows the destination of the patient in eDisposition.21 under Type of Destination = 4221003 Hospital-Emergency Department OR 4221005 Hospital-Non-Emergency Department Bed OR 4221007 Medical Office/Clinic.

Fatalities

It is important to note that on-scene fatalities have been identified to the extent that the patient was known to have been alive at last known contact. This dashboard counts heat-related EMS activations where the patient survived and where there was a fatality. Fatalities are determined using the fields and values below. This dashboard does not include fatalities where the patient was dead on arrival (DOA).

<table>
<thead>
<tr>
<th>NEMSIS Element</th>
<th>Element Description</th>
<th>Code Description</th>
<th>Code Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>eArrest.03</td>
<td>Resuscitation Attempted By EMS</td>
<td>Not Attempted-Considered Futile</td>
<td>3003007</td>
</tr>
<tr>
<td>eArrest.03</td>
<td>Resuscitation Attempted By EMS</td>
<td>Not Attempted-DNR Orders</td>
<td>3003009</td>
</tr>
<tr>
<td>eArrest.03</td>
<td>Resuscitation Attempted By EMS</td>
<td>Not Attempted-Signs of Circulation</td>
<td>3003011</td>
</tr>
<tr>
<td>eArrest.16</td>
<td>Reason CPR/Resuscitation Discontinued</td>
<td>DNR</td>
<td>3016001</td>
</tr>
<tr>
<td>eArrest.16</td>
<td>Reason CPR/Resuscitation Discontinued</td>
<td>Obvious Signs of Death</td>
<td>3016005</td>
</tr>
<tr>
<td>eArrest.17</td>
<td>Cardiac Rhythm on Arrival at Destination</td>
<td>Agonal/Idioventricular</td>
<td>9901001</td>
</tr>
<tr>
<td>eArrest.17</td>
<td>Cardiac Rhythm on Arrival at Destination</td>
<td>Asystole</td>
<td>9901003</td>
</tr>
<tr>
<td>eArrest.17</td>
<td>Cardiac Rhythm on Arrival at Destination</td>
<td>PEA</td>
<td>9901035</td>
</tr>
<tr>
<td>eArrest.18</td>
<td>End of EMS Cardiac Arrest Event</td>
<td>Expired in the Field</td>
<td>3018003</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Dead at Scene-No Resuscitation Attempted (With Transport)</td>
<td>4212013</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Dead at Scene-No Resuscitation Attempted (Without Transport)</td>
<td>4212015</td>
</tr>
<tr>
<td>eDisposition.12</td>
<td>Incident/Patient Disposition</td>
<td>Patient Dead at Scene-Resuscitation Attempted (Without Transport)</td>
<td>4212019</td>
</tr>
<tr>
<td>eDisposition.19</td>
<td>Final Patient Acuity</td>
<td>Dead without Resuscitation Efforts (Black)</td>
<td>4219007</td>
</tr>
<tr>
<td>eDisposition.21</td>
<td>Type of Destination</td>
<td>Morgue/Mortuary</td>
<td>4221009</td>
</tr>
<tr>
<td>eSituation.13</td>
<td>Initial Patient Acuity</td>
<td>Dead without Resuscitation Efforts (Black)</td>
<td>281300</td>
</tr>
</tbody>
</table>

Average EMS Time to Patient

The Average EMS Time to Patient is defined as the sum of all the response times measured in minutes divided by the number of heat-related EMS patients in the pre-hospital setting within the selected time period, rolling 14 days or rolling 30 days. Response time is calculated by adding the following three elapsed EMS times:

- EMS Dispatch Center Time (eTimes.03 - eTimes.01): 0-3599 in seconds
- EMS System Response Time (eTimes.06 - eTimes.03): 0-1439 in minutes
- EMS Scene to Patient Time (eTimes.07 - eTimes.06): 0-719 in minutes

Records without a response time are excluded from the calculation of the average but are not excluded from the data set. For more information on eTimes, see the NEMSIS Version 3.4 Data Dictionary found at: DEM/EMS Data Dictionary.

Number of Heat-Related EMS Activations

The Number of Heat-Related EMS Activations is defined as the count of heat-related activations within the selected time period, rolling 14 days or rolling 30 days.

Rate of Heat-Related EMS Activations per 100K Population

The rate of heat-related EMS activations per 100,000 people residing in the geographic area and time period selected, rolling 14 days or rolling 30 days.

Number of Heat-Related Deaths Among EMS Activations

The Number of EMS reported heat-related deaths occurring at the scene for which EMS responded.
Patients Transported to a Medical Facility

Patients Transported to a Medical Facility is defined as the percentage of heat-related EMS activations within the selected time period, rolling 14 days or rolling 30 days, that were either transported to a medical facility from the scene by EMS or were transported to a location other than a medical facility. A patient is marked as transported to a medical facility if the recorded value for eDisposition.21 is any of the following:

- Hospital-Emergency Department
- Hospital-Non-Emergency Department Bed
- Medical Office/Clinic

For more information on eDisposition.21 see the NEMSIS Version 3.4 Data Dictionary found at: DEM/EMS Data Dictionary.

Dashboard Visualizations and Filters

US Map Tab

Heat-related EMS activations can be filtered to view a specific State/District/Territory. They can also be filtered by Rate of Heat-Related EMS Activations, Average Time to Patient, and % Transported to a Medical Facility.
### National Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>Data</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average EMS Time to Patient</strong></td>
<td>12.7 min</td>
<td>-1.2%</td>
</tr>
<tr>
<td><strong>Number of Heat-Related EMS Activations</strong></td>
<td>11,122</td>
<td>+109.9%</td>
</tr>
<tr>
<td><strong>Rate of Heat-Related EMS Activations per 100K Population</strong></td>
<td>3.4</td>
<td>+109.9%</td>
</tr>
<tr>
<td><strong>Number of Heat-Related Deaths Among EMS Activations</strong></td>
<td>38.0</td>
<td>+35.7%</td>
</tr>
<tr>
<td><strong>Patients Transported to a Medical Facility</strong></td>
<td>63.9%</td>
<td>-100.0%</td>
</tr>
</tbody>
</table>

Several national statistics are also highlighted on this dashboard such as the Average EMS Time to Patient, which measures the elapsed time in minutes from the 911 call activation to when EMS arrived on scene. It also highlights National data including; the Number of Heat-Related EMS Activations, Rate of Heat-Related EMS Activations per 100,000 population, Number of Heat-Related Deaths Among EMS Activations (deaths represent those who were still alive when EMS arrived on scene), and Patients Transported to a Medical Facility. The date range here will change depending on the time period selected for either rolling 14 days or rolling 30 days.

### Top Jurisdictions

<table>
<thead>
<tr>
<th>Top Jurisdictions</th>
<th>Top Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of Heat-Related EMS Activations</td>
<td>Rate of Heat-Related EMS Activations</td>
</tr>
</tbody>
</table>

The top 10 jurisdictions and counties with the highest rate of heat-related EMS activations per 100k population are displayed to the lower right of the national map. States and counties with fewer than five recorded heat-related EMS activations are excluded from the rankings.
The top right graph shows the national rate of heat-related EMS activations per 100,000 population from 2018-2022.

More detailed information can be obtained by hovering over the counties or states on the map. The name of the County and State, and the Estimated Population for the county or state will appear. It will also display the color distribution described below. On the banner at the top of the visualization, you can click the drop-down check mark to display States or Counties.

**Color Distribution**

The shades of brown show defined characteristics based on the national average. Ranges are recalculated weekly as new data becomes available. Counties and states are shaded according to their measured value relative to the national average for the selected geographic level, county or state, and time period, rolling 14 days or rolling 30 days. Each numerical band and its corresponding color are defined as follows.

<table>
<thead>
<tr>
<th>No/Limited Data Available</th>
<th>No EMS Activations in the NEMSIS Warehouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero or Much Lower Than Average</td>
<td>Between 0 and 50% of the Average</td>
</tr>
<tr>
<td>Lower Than Average</td>
<td>Between 50% and 90% of the Average</td>
</tr>
<tr>
<td>Near National Average</td>
<td>Between 90% and 110% of the Average</td>
</tr>
<tr>
<td>Higher Than Average</td>
<td>Between 110% and 200% of the Average</td>
</tr>
<tr>
<td>Much Higher Than Average</td>
<td>Greater than 200% of the Average</td>
</tr>
</tbody>
</table>

**Disparity Explorer Tab**

The 2nd tab explores disparities among patient characteristics. Patient characteristics can be filtered by age, race, gender, or urbanicity, as defined below. The dashboard displays average EMS time to patient in minutes, number of heat-related EMS activations, rate of heat-related EMS activations per 100,000 population, number of heat-related deaths (deaths represent those who were still alive when EMS arrived on scene), and percentage of patients transported to a medical facility.

- **Age**- Age is defined by the categories 1-14, 15-24, 25-34, 35-44, 45-54, 55-64, and 65 years of age and older.
- **Race**- Race is categorized by American Indian or Alaskan Native, Asian, Black or African American, Hispanic or Latino, Multi-Race/ Ethnicity, Native Hawaiian or Other Pacific Islander, and White.
- **Gender**- Gender is defined here as men and women.
- **Urbanicity**- Urbanicity is defined as frontier, rural, suburban, and urban. Urbanicity is further defined below.

**Urbanicity**

Urbanicity is defined by the 2013 USDA Economic Research Service’s 2013 Urban Influence Codes. These classifications occur at the incident zip code level. More information about these codes can be found at the following URL:

Urban Influence Codes

<table>
<thead>
<tr>
<th>NEMSIS Urbanicity</th>
<th>2013 urban influence code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>1,2</td>
</tr>
<tr>
<td>Suburban</td>
<td>3,5</td>
</tr>
<tr>
<td>Rural</td>
<td>4,6,8,9</td>
</tr>
</tbody>
</table>
Frequently Asked Questions

How large is the NEMSIS database?

The National EMS database is the largest publicly available collection of prehospital medical care in the United States. The 2022 NEMSIS Public-Release Research Dataset includes 51,379,493 EMS activations submitted by 13,946 EMS agencies serving all 50 states, the District of Columbia and three territories.

Is the NEMSIS database a population-based dataset?

The National EMS database is a very large registry of all records submitted by participating EMS agencies within states/territories. The National EMS database is subject to the limitations of any registry based on the participation of willing providers. That is, there may be some types of EMS agencies (or patient populations) that are under/over-represented in the sample. Nevertheless, the National EMS database is estimated to include 95% of all EMS activations occurring in the U.S.

How many EMS agencies contribute to the NEMSIS data set?

Nearly 14,000 EMS agencies from 53 states/territories and one district contribute data to the National EMS database annually. Currently, there is no available accounting of the total number of EMS agencies treating and transporting patients within the U.S. Thus, it is difficult to estimate the coverage of the National EMS database. Because there are EMS agencies that are not reporting, estimates for some jurisdictions may be less reliable.

Does each record in the NEMSIS database represent a single patient?

No. The records in the National EMS database are “resource activation-based” and not “patient-based”. Depending on the emergency response model utilized within jurisdictions, a single patient requesting emergency care may receive care from a “first-responder” EMS team and an ambulance for transport to a hospital. In this case, the National EMS database would include two records for this patient encounter. The NEMSIS data utilized by the dashboard undergoes a deduplication algorithm to select a single encounter record for each unique heat-related EMS activation patient. If a patient experiences multiple events over the displayed time period, each encounter is counted independently.

Who collects the electronic patient care reports (ePCR) in the NEMSIS database?

EMS clinicians document their response to and care for patients requesting emergency assistance in the out-of-hospital setting. These EMS responses are also called EMS runs, calls, or activations. They may respond in an ambulance, fire truck, transport van, helicopter, etc.

What data are collected in the NEMSIS database?

The field EMS clinician completes an electronic Patient Care Report (ePCR). They collect data elements required by the local medical authority, the state, and the national NEMSIS standard. Data includes patient characteristics, patient care activity, system response, and operational information. Data are not collected for patients who are found dead on arrival (DOA).

Does the NEMSIS national database contain personal health information (PHI)?

No personal health information (PHI) is reflected in the data contributed by States to the National EMS database. The dataset collected by the NEMSIS TAC is considered a “limited” dataset under HIPAA, and the research dataset that the NEMSIS TAC releases is a “de-identified” dataset.

What is the quality of the NEMSIS database?

Data files received from contributing EMS agencies and states are checked for completeness, logical consistency, and proper formatting. Records are exposed to several hundred validation rules at the time of data collection. Any data files not passing the NEMSIS validation and data cleaning processes are rejected or flagged, based upon the type of discovered discrepancy.

How many states and territories contribute to the NEMSIS database?

As of 2023, all 50 states, the District of Columbia and 3 territories contribute records to the NEMSIS database. The contributing territories are Guam, US Virgin Islands, and Northern Mariana Islands.

Does the Office of the Assistant Secretary for Health (OASH) NEMSIS dashboard data contain duplicate patient records?

No. The OASH NEMSIS data set utilizes a deduplication algorithm to select for unique heat-related EMS activations. If a patient experiences multiple heat-related events over the displayed time period, each encounter is counted independently.

Does the OASH NEMSIS dashboard contain fatalities?

Yes. EMS records indicating that the patient expired either before EMS arrival or during EMS care are identified in the dashboard.

Does the OASH NEMSIS dashboard contain patient outcome data?

Not really. The NEMSIS data standard does allow for the collection of hospital outcome data for patients transported to hospitals by EMS. Outcome information, however, is rarely collected due to limitations and inconsistencies associated with healthcare information exchange in the U.S. For this reason, hospital outcome data are not part of the OASH NEMSIS data set.

How frequently are new data received?
EMS records are received at the NEMSIS TAC from participating states and territories 24/7. The heat-related EMS events presented on the OASH dashboard is delayed by two-weeks to ensure complete reporting by all EMS agencies and States. The OASH NEMSIS data set is updated with new data every Sunday. Updates are available on Monday mornings.

How is a heat-related EMS activation identified in the OASH NEMSIS dashboard?

A layered algorithm using observed information from the on-scene EMS clinicians as well as patient symptoms are used to identify heat-related EMS activation records for inclusion in the data set.

How long is the delay between the completion of an ePCR and its arrival in the National EMS database?

The median elapsed time between ePCR completion and arrival at the National EMS database is less than one hour. However, the delay between actually completing an ePCR and arrival at the National EMS database can vary, for a variety of reasons. For example, an ePCR associated with an unconscious patient may not be completed until additional information can be obtained from family members or hospital records. The NEMSIS TAC receives records for 75% of all patient contacts that occur on any given day in the U.S., within approximately 10 days. Over 99% of all patient care reports are received within 2 weeks of patient contact.

Tableau Toolbar

All Tableau dashboards share the same toolbar at the bottom of the view. Note that while most dashboards will have the same selections, some items may differ based on user permissions.

Undo, Redo, Revert, Refresh and Pause

These selections are found on the left side of the Tableau toolbar and can be used to help navigate the dashboard.

Undo will remove the last selection made, if you have used undo to remove a selection, you can then use redo to return to that selection. Revert returns the dashboard to its original view. Refresh will reload the data on the dashboard subject to any selections made. Pause will stop the dashboard from refreshing as you make selections.

As an example, if you want to make a set of complete selections in a dashboard’s filters, you could use these buttons to speed up the process. Normally, every time a change is made, the dashboard will refresh. If you select “Pause” however, the dashboard will remain the same no matter how many selections you make. Once you have made all your selections, you can select “Refresh” to reload the dashboard based on those selections.

Subscribe, Custom Views, Edit, Share, and Download

These selections are found on the right side of the Tableau toolbar and can be used to interact with the dashboard in external ways.

The Subscribe button allows users to subscribe to a daily or weekly email that will show a static image of the dashboard as well as a link to the view.

You can select either a particular view (tab) or all the views (tabs) available in the dashboard. Under “Email Subscriptions,” you can choose the frequency of emails. In “Subject Line,” you can assign the subject for the emails. As a default, the subscription will be assigned to the email address associated with your NEMSIS account.
**Custom Views** allows users to save any particular set of filters or selections for quick access later. A user can create their view and then name it and save it either for their own personal use or use by anyone with access to this dashboard. Previously saved views will appear in the custom views tab.

**Edit** will open the dashboard in the web editor for Tableau. Note that this option is not available on all dashboards and will require some knowledge of how to use Tableau to build and edit dashboards.

**Share** will provide a couple of options for sharing the dashboard with others, specifically an embed code and a regular HTML link. While you can use the link to share the dashboard with others, please keep in mind that many of the NEMSIS dashboards will require a username and password. Only those with credentials will be able to access them.

The last option is **Download**. Clicking on the download button opens up several options to download either the workbook, the data within it, or a static image of the view.

- Tableau Workbook
- PDF
- Crosstab
- Data
- Image

Selecting any one of these file types will produce a download of the requested file. Remember that not all options will be available for all dashboards and views.

**Contact Info**

Any questions, comments, concerns, or suggestions regarding this or other reports made available by the NEMSIS TAC, please submit a Help Desk Ticket using the NEMSIS website here: [https://nemsis.atlassian.net/servicedesk/customer/portals](https://nemsis.atlassian.net/servicedesk/customer/portals)