

# Reports User Guide

Cardiac Arrest Registry to Enhance Survival (CARES)

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## CARES WEBSITE:



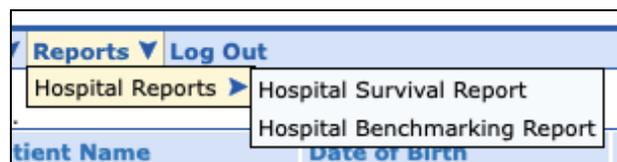
The publicly accessible CARES website hosts legacy reports from previous years under the Data menu.

## USER ACCESS:

EMS and hospital users have 24/7 access to a number of site-specific reports, which can be found under the **Reports** drop down menu upon log-in with their unique username and password.



EMS



HOSPITAL

## CARES CASE DEFINITION:

A CARES case is a non-traumatic out-of-hospital cardiac arrest event where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This includes patients that received an AED shock by a bystander prior to the arrival of 911 responders. Please note: CARES collected only arrests of presumed cardiac etiology from 2005-2012. In 2013, CARES expanded to include all non-traumatic arrests.

This User Guide includes a number of data definitions. For additional examples, please refer to the CARES Data Dictionary, available at <https://mycares.net/sitepages/emsagencies.jsp>.

## UTSTEIN REPORT:

The **Utstein Survival Report** is the most commonly used report. Utstein is an internationally agreed upon cardiac arrest metric that considers all bystander-witnessed arrests that present in a shockable rhythm. To generate this report:

1. Enter the **Service Date** range of interest. Reports using recent data are not completely audited and therefore may be incomplete. Data by calendar year is not finalized mid-April of the following year. For example, reports including data from 2019 would not be considered final until April 15, 2020.
2. Select the **Data Scope** of interest. “My Data” will generate a report using your EMS Agency’s data, while “National Data” will generate a benchmarking report using the national dataset.
3. Select the **Etiology** of arrest, Presumed Cardiac or Non-Traumatic.
4. Indicate whether you want to include pages that list any **Incomplete Outcomes** (Yes or No).
5. Click **“Generate Report.”**

The Utstein Report can also be filtered by local First Responders or Incident Counties using the corresponding pull-down menu or selection box.

### Report: Utstein Survival Report

**Filter:** Default 
[+ \[Add to myReports\]](#)
[X \[Delete this Filter\]](#)

First Responder:

Service Date: From:  Through:

Data Scope:  My Data  National Data  
\*Only data from the previous calendar year is fully audited. Data from the current calendar year is dynamic.

Presumed Arrest Etiology:  Non-Traumatic CARES Cases  Presumed Cardiac CARES Cases

View Incomplete Outcomes:  Yes  No

Incident County:

Format:

Saved Filter Name:  [Save Filter](#)

PLEASE NOTE: From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests. Please select Data Type and Service Date Range accordingly.

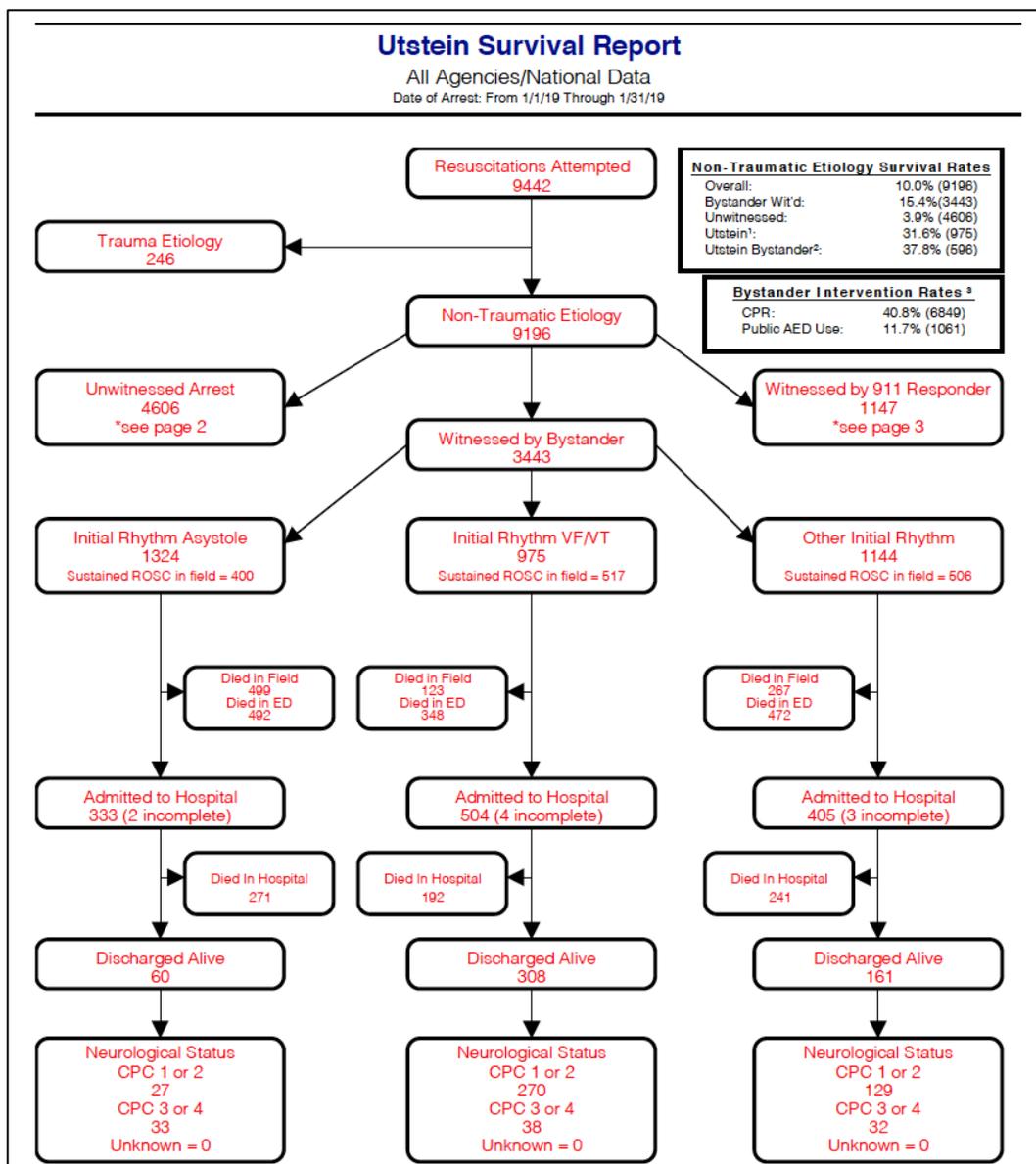
[Generate Report](#)

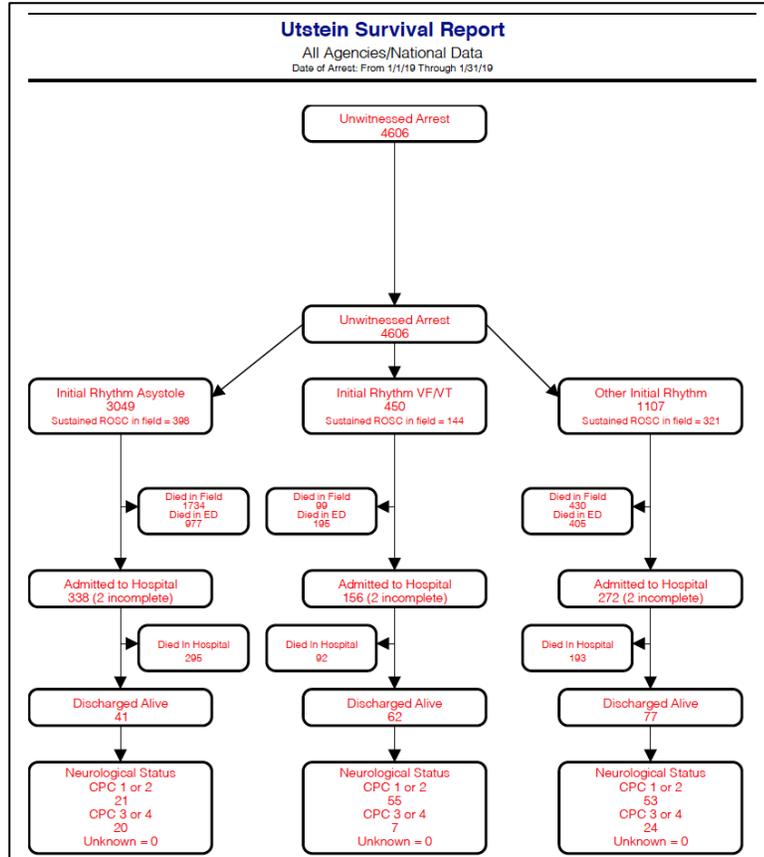
In the upper right-hand corner of the Utstein Report, you will see a box listing a number of survival rates.

- **Overall:** Includes all CARES cases.
- **Bystander Witnessed:** Includes all bystander witnessed arrests (those found on page 1 of the report).
- **Unwitnessed:** Includes all unwitnessed arrests (those found on page 2 of the report).
- **Utstein:** Witnessed by bystander and found in shockable rhythm.
- **Utstein Bystander:** Witnessed by bystander, found in shockable rhythm, and received some bystander intervention (CPR and/or AED application).

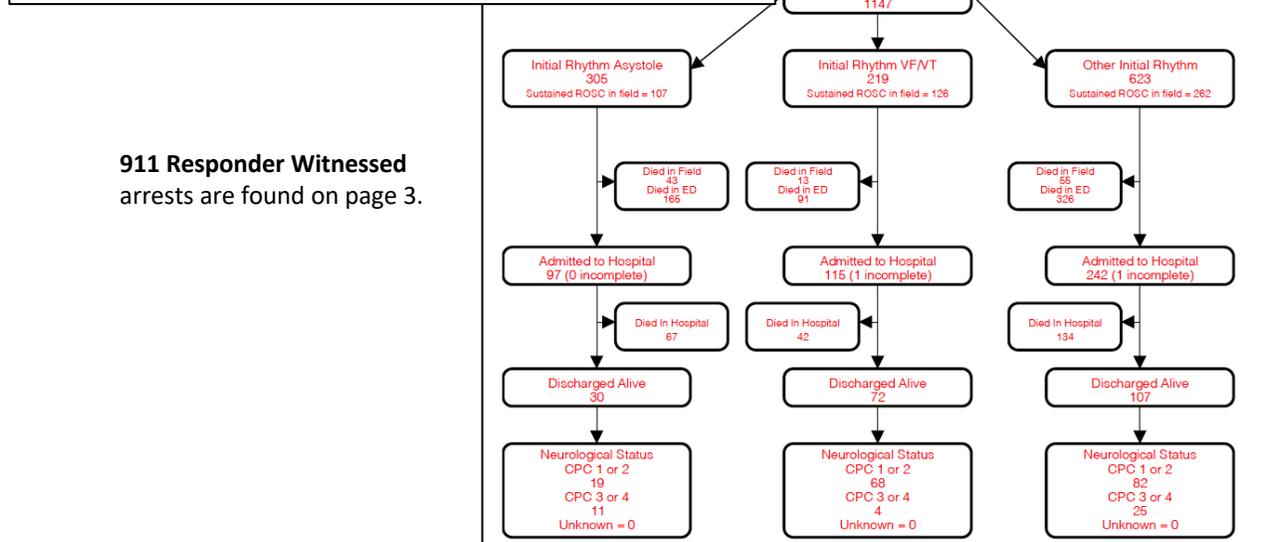
Below, you'll find a box that provides rates of critical **Bystander Interventions**, including CPR and AED use. Bystander CPR rate excludes 911 Responder Witnessed, Nursing Home, and Healthcare Facility arrests. Public AED Use rate excludes 911 Responder Witnessed, Home/Residence, Nursing Home, and Healthcare Facility arrests.

The Utstein Report follows a flow diagram format, categorizing arrests by witness status, initial rhythm, and patient outcome. **Bystander Witnessed** arrests are found on page 1.





Unwitnessed arrests are found on page 2.



911 Responder Witnessed arrests are found on page 3.

Page 4 lists any records that have an outstanding hospital outcome.

Incomplete Data							
Incident #	Service Date	Dest. Hospital	Transfer Hospital	ER Outcome	Hosp Outcome	Neuro Outcome	
20144587	2014-12-17	0100 - Test 1	Left Blank	Left Blank	Left Blank	Left Blank	
12358er	2014-02-03	0100 - Test 1	Left Blank	Admitted to hospital	Not yet determined	Left Blank	

## SUMMARY REPORT:

The **CARES Summary Report** provides descriptive statistics on a number of pre-hospital characteristics. Please see page 9 of this User Guide for a sample CARES Summary Report.

\*Please note: given the dynamic nature of CARES data, only CARES staff and state coordinators have access to this report, and can run them upon request.

This report can include up to 5 columns of data for benchmarking purposes, including National, State, Agency Group, County, EMS Agency, and First Responder. The report can also be filtered by Presumed Cardiac CARES Cases and Non-Traumatic CARES Cases. Finally, users can view the data based on arrest witness status, looking at All arrests, non-911 Responder witnessed arrests, or 911 Responder witnessed arrests.

**Report: CARES Summary Report**

---

**Filter:** Default 
+ [Add to myReports]
 x [Delete this Filter]

**PLEASE SELECT UP TO 5 COLUMNS OF DATA.**

<b>National Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No	<b>County Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No	<b>Agency Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
<b>State Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No	<b>Incident County:</b> <div style="border: 1px solid #ccc; height: 80px; width: 100%;"></div>	<b>Agency:</b> <input type="text" value="All"/>
<b>State:</b> <input type="text" value="All"/>		<b>First Responder Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No
<b>Agency Group Data:</b> <input type="radio"/> Yes <input checked="" type="radio"/> No		<b>First Responder:</b> <input type="text" value="All"/>
<b>Agency Group:</b> <input type="text" value="All"/>		

**Service Date:**  
 From:   Through:

**Presumed Arrest Etiology:**  
 Non-Traumatic CARES Cases  Presumed Cardiac CARES Cases

**Arrest Witness Status:**  
 All  After 911 Responder Arrival  Before 911 Responder Arrival

**Format:**

**Saved Filter Name:**  Save Filter

PLEASE NOTE: From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests. Please select Filters and Service Date Range accordingly.

Generate Report

### Data Definitions:

- **Location of Arrest** – type of location where the patient arrested.
  - **Home/Residence** – includes Home/Residence and Residence/Institution
  - **Nursing Home** – includes Nursing Home
  - **Public Setting** – includes Industrial Place; Mine/Quarry; Physician Office/Clinic, Hospital, or Healthcare Facility; Recreation/Sport or Place of Recreation; Public Building; Farm; Educational Institution; Jail; Street/Highway; Airport or Transport Center; and Other
- **Arrest witnessed** - A witnessed arrest is one that is seen or heard by another person.
- **Bystander** - A lay person, family member, or lay person healthcare provider.
- **First Responder** – Personnel who respond to the medical emergency in an official capacity as part of an organized medical response team but are not the designated transporter of the patient to the hospital.
- **Emergency Medical Services (EMS)** - Personnel who respond to the medical emergency in an official capacity (i.e. respond to the 911 call) as part of an organized medical response team AND are the designated transporter of the patient to the hospital.
- **Was an AED applied prior to EMS arrival?** - This denotes AED application by a bystander or First Responder prior to EMS arrival, regardless of whether defibrillation occurred.
- **Who first applied AED?** – Identifies the individual who initially applied/used the AED during resuscitation. Please note, the number of patients who had an AED applied (N) is the denominator for this metric.
- **Who first defibrillated the patient?** – Used to determine the frequency of defibrillatory shocks among bystanders and responders.
- **First Arrest Rhythm** - First cardiac rhythm present when a monitor/defibrillator or AED is attached to a patient.
- **Sustained ROSC** - Return of Spontaneous Circulation (ROSC) is defined as the restoration of a palpable pulse or a measurable blood pressure. Sustained ROSC is deemed to have occurred when chest compressions are not required for 20 consecutive minutes and signs of circulation persist.
- **Hypothermia care** - Measures were taken in the field to reduce the patient’s body temperature by means of external cold pack application to armpits/groin or administration of cold intravenous saline bolus, with or without sedation or other medications.
- **Survived to hospital admission** - Includes patients for whom ER Outcome = Admitted to ICU/CCU, Admitted to floor, or Admitted to hospital.
- **Survived to hospital discharge** - Includes patients for whom Hospital Outcome = Discharged Alive or Patient Made DNR = Discharged Alive.
- **Good Cerebral Performance** – CPC 1; Patient is conscious, alert, able to work and lead a normal life.
- **Moderate Cerebral Performance** – CPC 2; Patients is conscious and able to function independently (dress, travel, prepare food), but may have hemiplegia, seizures, or permanent memory or mental changes.
- **Utstein Survival** – Survival among patients whose cardiac arrest was witnessed by a bystander and were found in a shockable rhythm.
- **Utstein Bystander Survival** - Survival among patients whose cardiac arrest was witnessed by a bystander, were in a shockable rhythm, and received some bystander intervention (CPR and/or AED application).

# CARES Summary Report

## Demographic and Survival Characteristics of OHCA

Data	EMS Agency N=162	State N=848	National N=26641
<b>Age</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26632</b>
Mean	61.1	62.9	63.0
Median	63.0	65.0	65.0
<b>Gender (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26636</b>
Female	78 (48.1)	354 (41.7)	10215 (38.4)
Male	84 (51.9)	494 (58.3)	16421 (61.6)
<b>Race (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26639</b>
American-Indian/Alaskan	0 (0.0)	4 (0.5)	122 (0.5)
Asian	0 (0.0)	16 (1.9)	592 (2.2)
Black/African-American	123 (75.9)	413 (48.7)	5827 (21.9)
Hispanic/Latino	1 (0.6)	24 (2.8)	1735 (6.5)
Native Hawaiian/Pacific Islander	0 (0.0)	1 (0.1)	128 (0.5)
White	30 (18.5)	355 (41.9)	13728 (51.5)
Multi-racial	0 (0.0)	0 (0.0)	0 (0.0)
Unknown	8 (4.9)	35 (4.1)	4507 (16.9)
<b>Location of Arrest (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Home/Residence	101 (62.3)	588 (69.3)	18938 (71.1)
Nursing Home	22 (13.6)	118 (13.9)	2957(11.1)
Public Setting	39 (24.1)	142 (16.7)	4746 (17.8)
<b>Arrest witnessed (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Bystander Witnessed	83 (51.2)	324 (38.2)	10056 (37.7)
Witnessed by 911 Responder	23 (14.2)	118 (13.9)	3290 (12.3)
Unwitnessed	56 (34.6)	406 (47.9)	13295 (49.9)
<b>Who Initiated CPR? (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26639</b>
Not Applicable	0 (0.0)	0 (0.0)	16 (0.1)
Bystander	45 (27.8)	317 (37.4)	11041 (41.4)
First Responder	52 (32.1)	251 (29.6)	7400 (27.8)
Emergency Medical Services (EMS)	65 (40.1)	280 (33.0)	8182 (30.7)
<b>Was an AED applied prior to EMS arrival? (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Yes	59 (36.4)	295 (34.8)	7579 (28.4)
No	103 (63.6)	553 (65.2)	19062 (71.6)
<b>Who first applied automated external defibrillator? (%)</b>	<b>N=59</b>	<b>N=295</b>	<b>N=7573</b>
Bystander	6 (10.2)	42 (14.2)	1719 (22.7)
First Responder	53 (89.8)	253 (85.8)	5854 (77.3)
<b>Who first defibrillated the patient?* (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26282</b>
Not Applicable	111 (68.5)	620 (73.1)	18262 (69.5)
Bystander	2 (1.2)	9 (1.1)	441 (1.7)
First Responder	15 (9.3)	62 (7.3)	1447 (5.5)
Responding EMS Personnel	34 (21.0)	157 (18.5)	6132 (23.3)
<b>First Arrest Rhythm (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26638</b>
Vfib/Vtach/Unknown Shockable Rhythm	35 (21.6)	153 (18.0)	4810 (18.1)
Asystole	91 (56.2)	425 (50.1)	13562 (50.9)
Idioventricular/PEA	34 (21.0)	200 (23.6)	5959 (22.4)
Unknown Unshockable Rhythm	2 (1.2)	70 (8.3)	2307 (8.7)
<b>Sustained ROSC (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26635</b>
Yes	46 (28.4)	229 (27.0)	8118 (30.5)
No	116 (71.6)	619 (73.0)	18517 (69.5)
<b>Was hypothermia care provided in the field? (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Yes	0 (0.0)	5 (0.6)	924 (3.5)
No	162 (100.0)	843 (99.4)	25717 (96.5)
<b>Pre-hospital Outcome (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Pronounced in the Field	36 (22.2)	86 (10.1)	9651 (36.2)
Pronounced in ED	27 (16.7)	220 (25.9)	3553 (13.3)
Ongoing Resuscitation in ED	99 (61.1)	542 (63.9)	13437 (50.4)
<b>Overall Survival (%)</b>	<b>N=162</b>	<b>N=848</b>	<b>N=26641</b>
Overall Survival to Hospital Admission	40 (24.7)	191 (22.5)	7311 (27.4)
Overall Survival to Hospital Discharge	17 (10.5)	81 (9.6)	2659 (10.0)
With Good or Moderate Cerebral Performance	13 (8.0)	60 (7.1)	2121 (8.0)
Missing hospital outcome	2	2	45
<b>Utstein<sup>1</sup> Survival (%)</b>	<b>N=25</b>	<b>N=83</b>	<b>N=2849</b>
	32.0%	24.1%	31.8%
<b>Utstein Bystander<sup>2</sup> Survival (%)</b>	<b>N=9</b>	<b>N=51</b>	<b>N=1700</b>
	55.6%	31.4%	36.7%

*Inclusion criteria: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.*

*\*This is a new question that was introduced on the 2011 form.*

*<sup>1</sup>Witnessed by bystander and found in a shockable rhythm*

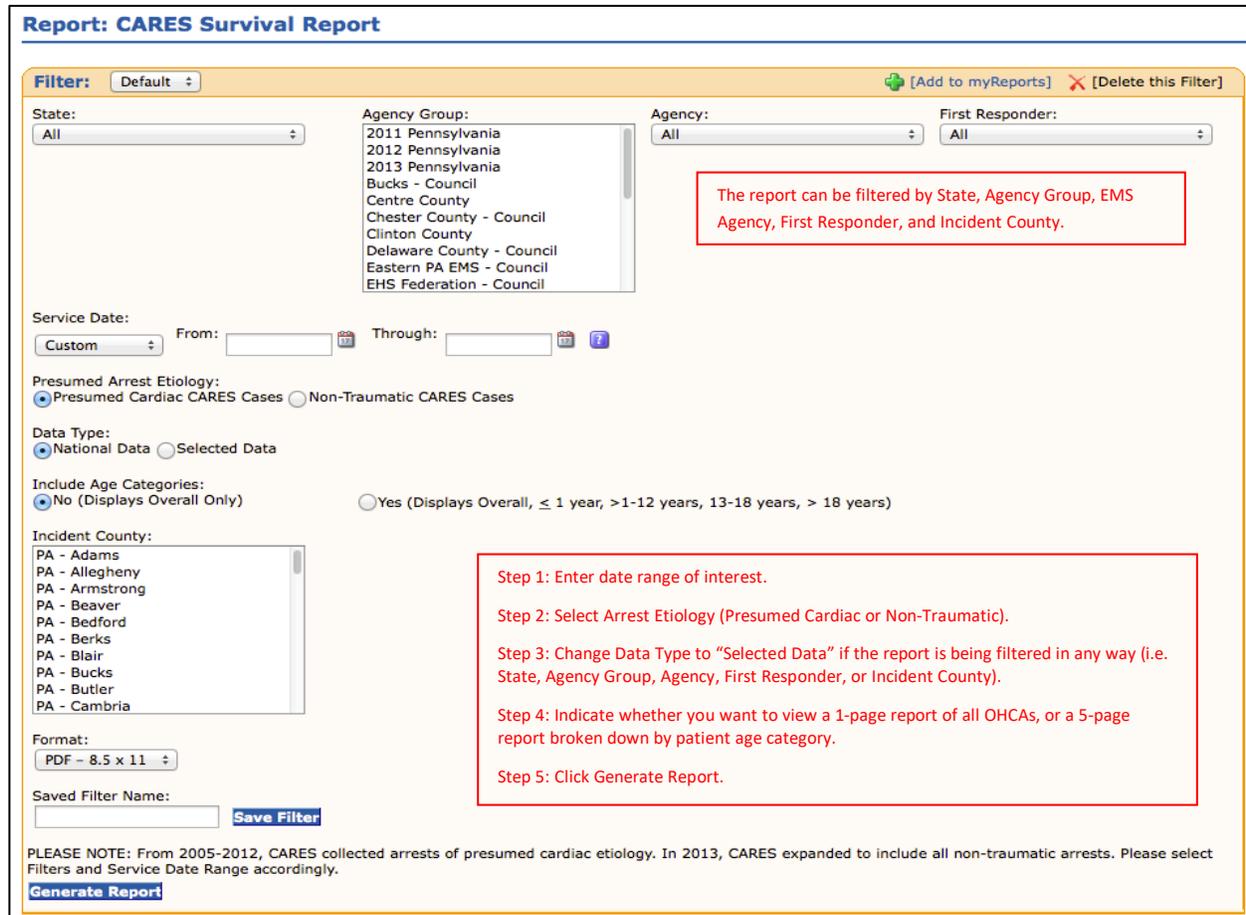
*<sup>2</sup>Witnessed by bystander, found in shockable rhythm, and received some bystander intervention (CPR by bystander and/or AED applied by bystander)*

## SURVIVAL REPORT:

The **CARES Survival Report** is designed to allow EMS agencies to track patient outcomes by a variety of pre-hospital characteristics, including arrest location and witness status, bystander CPR and AED usage, and initial rhythm. Please see page 12 of this User Guide for a sample CARES Survival Report.

\*Please note: given the dynamic nature of CARES data, only CARES staff and state coordinators have access to this report, and can run them upon request.

The Report Setup page allows for a number of filtering options, which are outlined in the screenshot below.



**Report: CARES Survival Report**

Filter: Default [Add to myReports] [Delete this Filter]

State: All Agency Group: 2011 Pennsylvania, 2012 Pennsylvania, 2013 Pennsylvania, Bucks - Council, Centre County, Chester County - Council, Clinton County, Delaware County - Council, Eastern PA EMS - Council, EHS Federation - Council Agency: All First Responder: All

Service Date: Custom From:  Through:

Presumed Arrest Etiology:  Presumed Cardiac CARES Cases  Non-Traumatic CARES Cases

Data Type:  National Data  Selected Data

Include Age Categories:  No (Displays Overall Only)  Yes (Displays Overall, ≤ 1 year, >1-12 years, 13-18 years, > 18 years)

Incident County: PA - Adams, PA - Allegheny, PA - Armstrong, PA - Beaver, PA - Bedford, PA - Berks, PA - Blair, PA - Bucks, PA - Butler, PA - Cambria

Format: PDF - 8.5 x 11

Saved Filter Name:  Save Filter

**Generate Report**

PLEASE NOTE: From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests. Please select Filters and Service Date Range accordingly.

**Instructions:**

- Step 1: Enter date range of interest.
- Step 2: Select Arrest Etiology (Presumed Cardiac or Non-Traumatic).
- Step 3: Change Data Type to "Selected Data" if the report is being filtered in any way (i.e. State, Agency Group, Agency, First Responder, or Incident County).
- Step 4: Indicate whether you want to view a 1-page report of all OHCA's, or a 5-page report broken down by patient age category.
- Step 5: Click Generate Report.

Inclusion criteria are listed at the bottom of the report. The report excludes patients with a missing hospital outcome; this number is noted at the bottom of the report in the footnotes.

If age categories are selected, a 5-page report will be generated. Page 1 will include all patients, whereas pages 2-5 will be filtered by age category (<1, 1-12, 13-18, and >18 years). The age category will be listed in the header of each report page.

The Survival Report summarizes the number and percentage of patients who achieved sustained ROSC, survived to hospital admission, and survived to hospital discharge (with a good/moderate CPC score), for each pre-hospital characteristic.

- **“Sustained ROSC”** includes patients for whom Sustained ROSC = Yes; Yes, pulse at end of EMS care (or ED arrival); and Yes, but pulseless at end of EMS care (or ED arrival).
- **“Survival to hospital admission”** includes patients for whom ER Outcome = Admitted to ICU/CCU, Admitted to floor, or Admitted to hospital.
- **“Survival to hospital discharge”** includes patients for whom Hospital Outcome = Discharged Alive or Patient Made DNR = Discharged Alive.
- **“Survival to discharge with CPC 1 or 2”** includes patients for whom Neurological Outcome = Good Cerebral Performance (CPC 1) or Moderate Cerebral Disability (CPC 2). The number of patients with a missing CPC score is listed in the footnotes.

The denominator for these four rates is the N in the left-most column (Total) of the row.

Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 <sup>†</sup> (%)
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**Patient Outcome Definitions:**

- **Sustained ROSC** – Return of Spontaneous Circulation (ROSC) is defined as the restoration of a palpable pulse or a measurable blood pressure. Sustained ROSC is deemed to have occurred when chest compressions are not required for 20 consecutive minutes and signs of circulation persist.
- **CPC 1** – Good cerebral performance. Patient is conscious, alert, able to work and lead a normal life.
- **CPC 2** – Moderate cerebral disability. Patients is conscious and able to function independently (dress, travel, prepare food), but may have hemiplegia, seizures, or permanent memory or mental changes.

**Arrest Characteristic Definitions:**

- **Arrest Witnessed Status** – A witnessed arrest is one that is seen or heard by another person.
- **Bystander CPR** – Cardiopulmonary resuscitation initiated by a lay person, family member, or lay person healthcare provider.  
*\*Please note:* Both “Bystander CPR” rates exclude 911 Responder witnessed events. The second bystander CPR rate also excludes arrests that occurred in a nursing home or healthcare facility.
- **Initial Arrest Rhythm** – First cardiac rhythm present when a monitor/defibrillator or AED is attached to a patient.
  - Shockable: includes Ventricular Fibrillation, Ventricular Tachycardia, and Unknown Shockable rhythms
  - Unshockable: includes Asystole, Idioventricular/PEA, and Unknown Unshockable rhythms
- **AED Use** – This denotes AED application by a bystander or First Responder prior to EMS arrival, regardless of whether defibrillation occurred.  
*\*Please note:* Both “Bystander AED use” rates exclude 911 Responder witnessed events. The second bystander AED use rate also excludes arrests that occurred in a nursing home or healthcare facility.
- **Field hypothermia** – Measures were taken in the field to reduce the patient’s body temperature by means of external cold pack application to armpits/groin or administration of cold intravenous saline bolus, with or without sedation or other medications.
- **In-hospital hypothermia:** Measures were taken in the hospital to reduce the patient’s body temperature by either non-invasive means (administration of cold intravenous saline, external cold pack application to armpits and groin, use of a cooling blanket, torso vest or leg wrap devices) or by invasive means (use of a cooling catheter inserted in the femoral vein).  
*\*Please note:* In-hospital hypothermia rate is limited to patients who were admitted to the hospital.

# CARES Survival Report

## National Data

	OVERALL N = 8126				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 <sup>†</sup> (%)
<b>Total</b>	8126	2652 (32.6)	2405 (29.6)	974 (12.0)	771 (9.5)
<b>Location of Arrest</b>					
Home/Residence	5599 (68.9)	1732 (30.9)	1532 (27.4)	543 (9.7)	410 (7.3)
Nursing Home	902 (11.1)	218 (24.2)	170 (18.8)	44 (4.9)	23 (2.5)
Public Setting	1625 (20.0)	702 (43.2)	703 (43.3)	387 (23.8)	338 (20.8)
<b>Arrest Witnessed Status</b>					
Unwitnessed	4002 (49.3)	855 (21.4)	762 (19.0)	206 (5.1)	137 (3.4)
Bystander witnessed	3100 (38.2)	1357 (43.8)	1195 (38.5)	551 (17.8)	466 (15.0)
911 Responder witnessed	1022 (12.6)	439 (43.0)	447 (43.7)	217 (21.2)	168 (16.4)
<b>Bystander CPR*</b>					
Bystander CPR	3398 (47.8)	1157 (34.0)	1021 (30.0)	445 (13.1)	381 (11.2)
No Bystander CPR	3704 (52.2)	1055 (28.5)	936 (25.3)	312 (8.4)	222 (6.0)
Bystander CPR (excludes nursing home/healthcare facility events)	2537 (41.7)	921 (36.3)	832 (32.8)	378 (14.9)	334 (13.2)
No Bystander CPR (excludes nursing home/healthcare facility events)	3541 (58.3)	1011 (28.6)	903 (25.5)	301 (8.5)	218 (6.2)
<b>Initial Arrest Rhythm</b>					
Shockable	1572 (19.3)	807 (51.3)	793 (50.4)	484 (30.8)	418 (26.6)
Non-shockable	6554 (80.7)	1845 (28.2)	1612 (24.6)	490 (7.5)	353 (5.4)
<b>AED Use</b>					
Bystander AED use*	553 (7.8)	203 (36.7)	183 (33.1)	95 (17.2)	82 (14.8)
Bystander AED use* (excludes nursing home/healthcare facility events)	174 (2.9)	89 (51.1)	92 (52.9)	57 (32.8)	54 (31.0)
Trained provider (First Responder) AED use	1815 (22.3)	583 (32.1)	500 (27.5)	215 (11.8)	184 (10.1)
<b>Utstein</b>					
Witnessed and shockable	1116 (13.7)	625 (56.0)	615 (55.1)	408 (36.6)	364 (32.6)
Bystander witnessed and shockable	938 (11.5)	525 (56.0)	509 (54.3)	332 (35.4)	295 (31.4)
<b>Hypothermia</b>					
Field hypothermia	274 (3.4)	148 (54.0)	129 (47.1)	53 (19.3)	41 (15.0)
In-hospital hypothermia/TTM (among admitted patients)	1082 (45.0)	--	--	376 (34.8)	276 (25.5)

**Inclusion Criteria:** An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

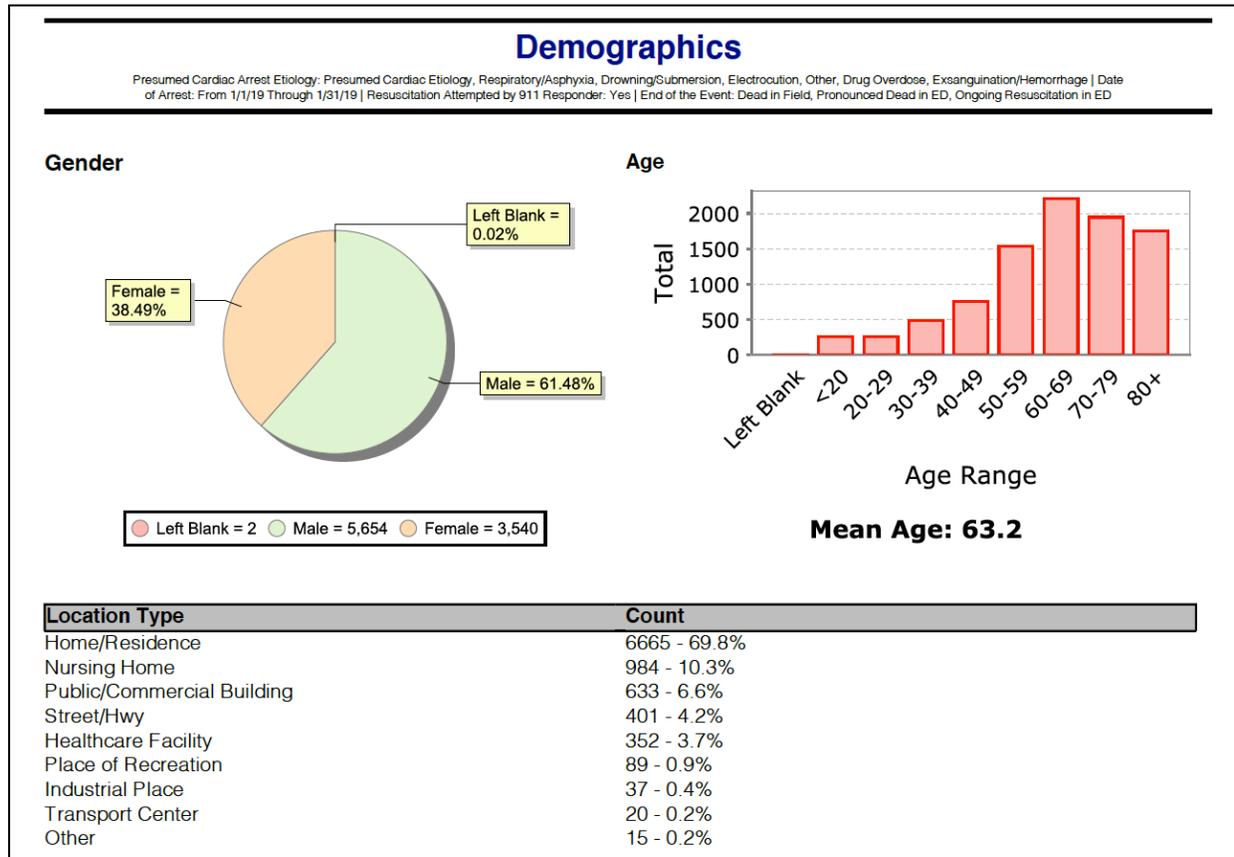
NOTE: Analysis excludes patients with missing hospital outcome (N=22).

\*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

<sup>†</sup>CPC missing for 0 patients.

## DEMOGRAPHICS REPORT:

The **Demographics Report** generates the same information as the Demographics Dashboard tab, but allows you to select a Service Date range of interest. A number of filters can be applied to this report, using the Filter pull-down menu in the upper left-hand corner (Presumed Cardiac CARES Cases, Non-Traumatic CARES Cases, Utstein Arrests).



## CALL TIMES REPORT:

The CARES **Call Times Report** shows the number of runs in a given 30 second response time interval, if your agency enters this supplemental information into CARES. Enter the Service Date range of interest and select the two times you wish to analyze from the Times pull-down menus. Click “Generate Report”.

A number of filters can be applied to this report, using the Filter pull-down menu in the upper left-hand corner (Presumed Cardiac CARES Cases, Non-Traumatic CARES Cases, Utstein Arrests) or First Responder pull-down menu.

### Report: Call Times

**Filter:** Presumed Cardiac CARES Cases 
[+ \[Add to myReports\]](#)
[X \[Delete this Filter\]](#)

Service Date:   
 From:  Through:

**End of the Event (3 selected):**  
DEAD IN FIELD  
EFFORT CEASED DUE TO DNR  
ONGOING RESUSCITATION IN ED  
PRONOUNCED DEAD IN ED

**Presumed Cardiac Arrest Etiology (1 selected):**  
DROWNING  
ELECTROCUTION  
OTHER  
**PRESUMED CARDIAC ETIOLOGY**  
RESPIRATORY  
TRAUMA  
UNKNOWN

**Resuscitation Attempted by 911 Responder (1 selected):**  
Yes  
No  
All

**First Responder:**  
All

**Times:**

**Format:**  
PDF - 8.5 x 11

Saved Filter Name:  [Save Filter](#)

PLEASE NOTE: From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests. Please select Filters and Service Date Range accordingly.

[Generate Report](#)

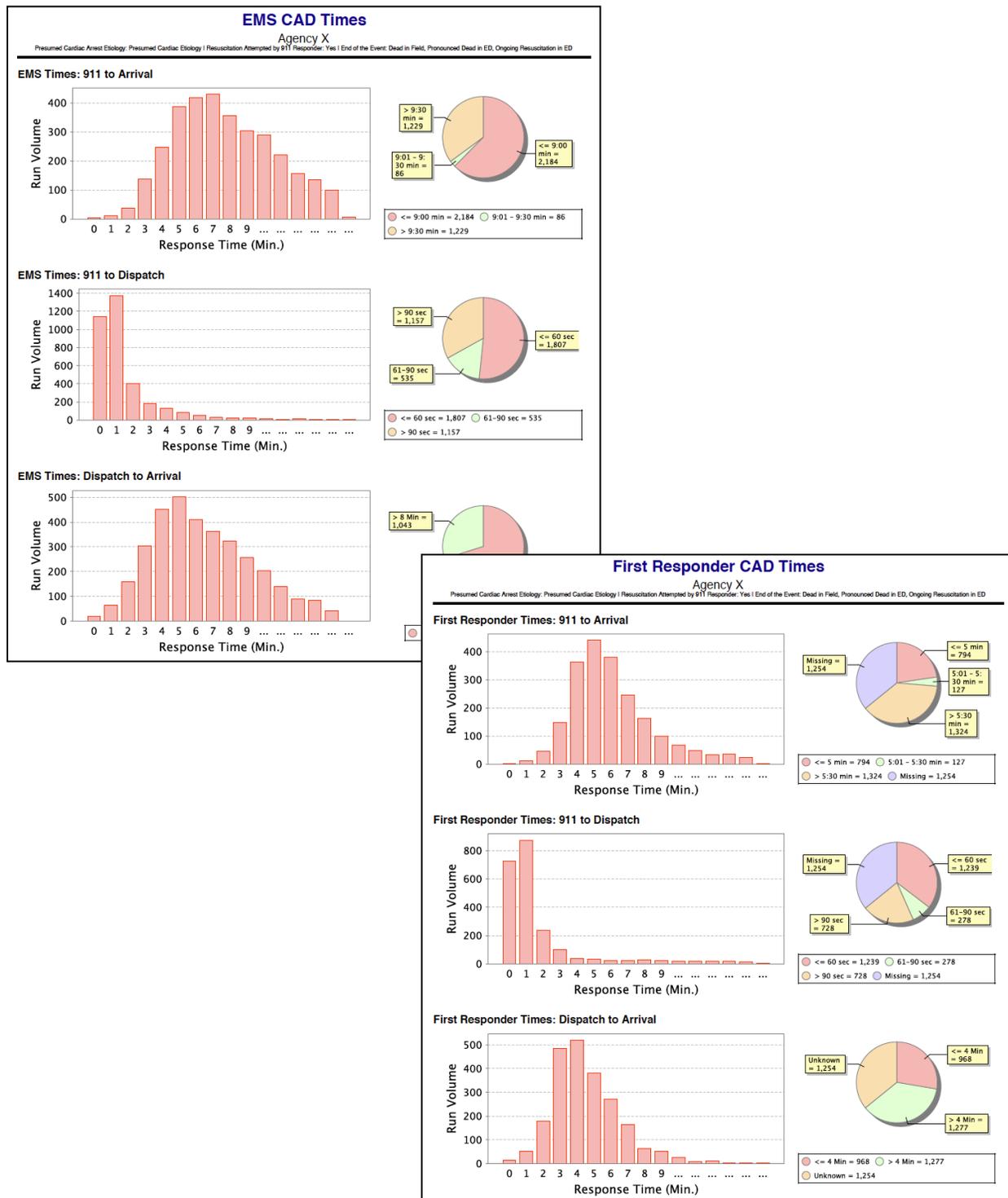
## Call Times - Call Received At Dispatch Center: Ambulance Dispatched

Presumed Cardiac Arrest Etiology: Presumed Cardiac Etiology, Respiratory/Asphyxia, Drowning/Submersion, Electrocution, Other, Drug Overdose, Exsanguination/Hemorrhage | Date of Arrest: From 1/1/19 Through 3/31/19 | Resuscitation Attempted by 911 Responder: Yes | End of the Event: Dead in Field, Pronounced Dead in ED, Ongoing Resuscitation in ED

Elapsed Time		# of Runs	% of Runs	# of Runs Cumulative	% of Runs Cumulative
0	Minutes	4036	15%	4036	15%
0.1 - 0.5	Minutes	4412	17%	8448	32%
0.6 - 1	Minute	4490	17%	12938	49%
1.1 - 1.5	Minutes	2560	10%	15498	58%
1.6 - 2	Minutes	2423	9%	17921	67%
2.1 - 2.5	Minutes	1005	4%	18926	71%
2.6 - 3	Minutes	862	3%	19788	74%
3.1 - 3.5	Minutes	330	1%	20118	76%
3.6 - 4	Minutes	340	1%	20458	77%

## EMS AND FIRST RESPONDER CAD TIMES REPORTS:

The **EMS and First Responder CAD Times Reports** show CAD time intervals in bar graph and pie chart format, if your agency enters this supplemental information into CARES. Enter the Service Date range of interest and click “Generate Report”. Both report setup pages include the Filter pull-down menu in the upper left-hand corner, allowing you to filter the report by Presumed Cardiac CARES Cases, Non-Traumatic CARES Case, or Utstein Arrests. The First Responder CAD Times Report can also be filtered by your local First Responders.



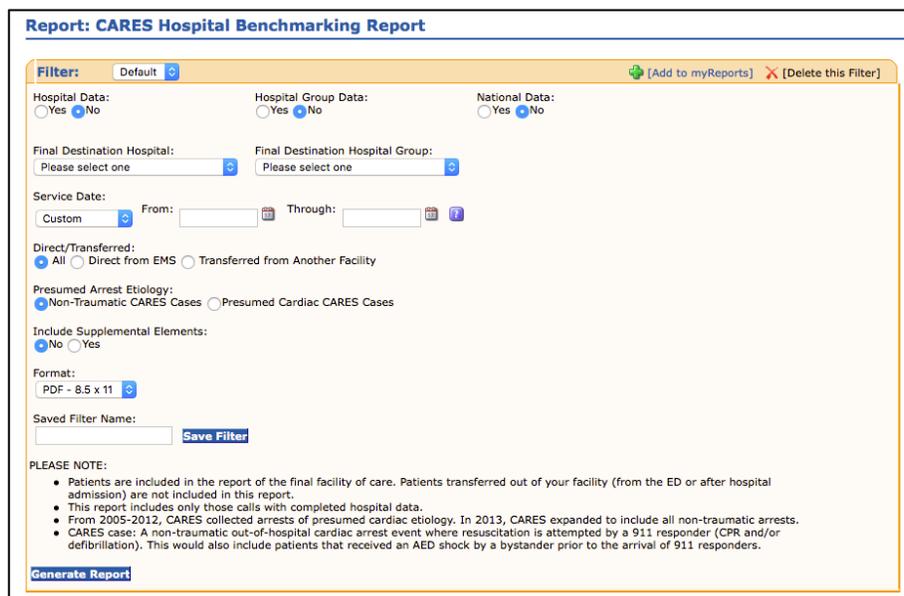
## HOSPITAL BENCHMARKING REPORT:

The **CARES Hospital Benchmarking Report** includes both pre-hospital and in-hospital characteristics of a hospital’s respective OHCA patient population. The report allows hospital users to track their internal performance and compare against state, hospital group, and national data, where applicable. State data will be provided upon request through your CARES State Coordinator.

To generate this report, access the “**Reports**” tab in your CARES account and click on “**Hospital Benchmarking Report**” in the drop-down menu. To customize your report:

1. Select “Hospital Data” = Yes to view your hospital-specific data. Multi-Hospital Users have the option to select “Hospital Group Data” to run system-level reports for multiple facilities. Select “National Data” = Yes to add a national benchmarking column to the report.
2. Enter the Service Date range of interest. Reports using recent data are not completely audited and therefore may be incomplete. Data by calendar year is not finalized until mid-April of the following year. For example, reports including data from 2020 would not be considered final until mid-April 2021.
3. Select origin of patient (Direct from EMS, Transferred from Another Facility, or All).
4. Select Data Type (Non-Traumatic CARES Cases OR Presumed Cardiac CARES Cases).
5. Indicate whether you want an optional 2<sup>nd</sup> page included in the report, with a section for Supplemental Hospital Elements (# 52-58).

Inclusion criteria are listed at the top of the report. Patients are included in the report of the *final* facility of care. Patients transferred out of your facility (from the ED or after hospital admission) and incomplete records are not included in this report.



**Report: CARES Hospital Benchmarking Report**

Filter: Default [Add to myReports] [Delete this Filter]

Hospital Data:  Yes  No

Hospital Group Data:  Yes  No

National Data:  Yes  No

Final Destination Hospital: [Please select one]

Final Destination Hospital Group: [Please select one]

Service Date: Custom [From: ] [Through: ]

Direct/Transferred:  All  Direct from EMS  Transferred from Another Facility

Presumed Arrest Etiology:  Non-Traumatic CARES Cases  Presumed Cardiac CARES Cases

Include Supplemental Elements:  No  Yes

Format: PDF - 8.5 x 11

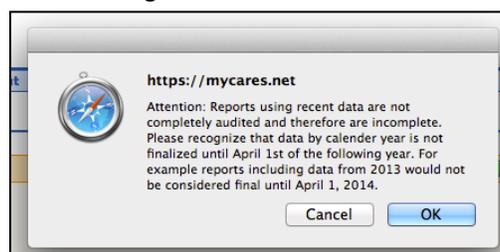
Saved Filter Name: [ ] [Save Filter]

PLEASE NOTE:

- Patients are included in the report of the final facility of care. Patients transferred out of your facility (from the ED or after hospital admission) are not included in this report.
- This report includes only those calls with completed hospital data.
- From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests.
- CARES case: A non-traumatic out-of-hospital cardiac arrest event where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

[Generate Report]

After clicking “Generate Report”, the pop-up box below will appear. This box reminds you that recent data may not be completely audited; data by calendar year is not finalized until mid-April of the following year. Click OK to acknowledge your understanding of this message.



The top of the Hospital Benchmarking Report lists the total number of CARES patients received by your hospital during the date range of interest. The total is broken down by the number who were transported directly by EMS and those who were transferred from another facility. Please note: the Hospital Benchmarking Report can be filtered by these criteria on the report setup page.

Total # of CARES Patients - Hospital	40
Direct from EMS	29
Transferred from another facility	11

The Hospital Benchmarking Report summarizes the number and percentage of patients who survived to hospital admission and discharge, for each pre-hospital characteristic. “Survived to Admission” includes patients for whom ER Outcome = admitted to ICU/CCU, admitted to floor, or admitted to hospital. “Survived to Discharge” includes patients for whom Hospital Outcome = discharged alive or patient made DNR → discharged alive. The denominator for both survival rates is the N in the left-most column (Total).

<b>CARES Medical Center</b>		
Total (%)	Survived to Admission (%)	Survived to Discharge (%)
<b>40</b>	<b>27 (67.5)</b>	<b>25 (62.5)</b>

**Pre-Hospital Characteristic Definitions:**

**Initial Rhythm** – First cardiac rhythm present when a manual monitor/defibrillator or AED is attached to a patient.

Shockable: includes Ventricular Fibrillation, Ventricular Tachycardia, and Unknown Shockable rhythms

Unshockable: includes Asystole, Idioventricular/PEA, and Unknown Unshockable rhythms

**Witnessed Status** – A witnessed arrest is one that is seen or heard by another person.

**Sustained ROSC in field** – Return of Spontaneous Circulation (ROSC) is defined as the restoration of a palpable pulse or a measureable blood pressure. Sustained ROSC is deemed to have occurred when chest compressions are not required for 20 consecutive minutes and signs of circulation persist.

**Utstein arrest** – Cardiac arrest was witnessed by a bystander and patient was found in a shockable rhythm.

**In-Hospital Characteristic Definitions:**

**Hypothermia care initiated/continued in hospital** - Hypothermia care is provided in the hospital if measures were taken to reduce the patient’s body temperature by either non-invasive means (administration of cold intravenous saline, external cold pack application to armpits and groin, use of a cooling blanket, torso vest or leg wrap devices) or by invasive means (use of a cooling catheter inserted in the femoral vein).

**Good Cerebral Performance** – Conscious, alert, able to work and lead a normal life.

**Moderate Cerebral Disability** – Conscious and able to function independently (dress, travel, prepare food), but may have hemiplegia, seizures, or permanent memory or mental changes.

**Supplemental Hospital Elements** – These data elements are *optional* and found on a 2<sup>nd</sup> page if this is selected upon report setup. The denominator for these metrics is the number of cases for whom these questions were answered. Blank fields and “unknown” responses are not included in the analysis.

# CARES Hospital Benchmarking Report (Non-Traumatic Etiology)

Sample Report

Total # of CARES Patients - Hospital	311	Total # of CARES Patients - State	2981	Total # of CARES Patients - National	49779
Direct from EMS	310	Direct from EMS	2911	Direct from EMS	47421
Transferred from another facility	1	Transferred from another facility	70	Transferred from another facility	2358

In-Hospital Characteristics	Hospital		State		National	
	Total (%)	Survived to Discharge (%)	Total (%)	Survived to Discharge (%)	Total (%)	Survived to Discharge (%)
Died in ED	227 (73.0)	--	2238 (75.1)	--	28016 (56.3)	--
Admitted to hospital	84 (27.0)	36 (42.9)	743 (24.9)	250 (33.6)	21764 (43.7)	8091 (37.2)
In-hospital hypothermia/TTM*	16 (19.0)	9 (56.2)	285 (38.4)	86 (30.2)	9835 (45.2)	3234 (32.9)
Patient made DNR*	23 (27.4)	4 (17.4)	166 (22.3)	22 (13.3)	5166 (23.7)	297 (5.7)
In-hospital mortality*	48 (57.1)	--	493 (66.4)	--	13673 (62.8)	--
Discharged alive	36 (11.6)	--	250 (8.4)	--	8091 (16.3)	--
Discharged with good/moderate CPC	18 (5.8)	--	167 (5.6)	--	6510 (13.1)	--

Pre-Hospital Characteristics	Hospital			State			National		
	Total (%)	Survived to Admission (%)	Survived to Discharge (%)	Total (%)	Survived to Admission (%)	Survived to Discharge (%)	Total (%)	Survived to Admission (%)	Survived to Discharge (%)
	<b>311</b>	<b>84 (27.0)</b>	<b>36 (11.6)</b>	<b>2981</b>	<b>743 (24.9)</b>	<b>250 (8.4)</b>	<b>49779</b>	<b>21764 (43.7)</b>	<b>8091 (16.3)</b>
Gender									
Male	189 (60.8)	46 (24.3)	19 (10.1)	1706 (57.2)	391 (22.9)	139 (8.1)	30899 (62.1)	13357 (43.2)	5335 (17.3)
Female	122 (39.2)	38 (31.1)	17 (13.9)	1275 (42.8)	352 (27.6)	111 (8.7)	18874 (37.9)	8403 (44.5)	2756 (14.6)
Mean Age	60.8	--	--	61.3	--	--	60.9	--	--
Initial Rhythm									
Shockable	60 (19.3)	23 (38.3)	13 (21.7)	552 (18.5)	198 (35.9)	108 (19.6)	12155 (24.4)	6918 (56.9)	4157 (34.2)
Unshockable	251 (80.7)	61 (24.3)	23 (9.2)	2429 (81.5)	545 (22.4)	142 (5.8)	37611 (75.6)	14835 (39.4)	3924 (10.4)
Witnessed Status									
Unwitnessed	108 (34.7)	18 (16.7)	7 (6.5)	1496 (50.2)	273 (18.2)	63 (4.2)	19882 (39.9)	7198 (36.2)	1801 (9.1)
Bystander Witnessed	152 (48.9)	48 (31.6)	20 (13.2)	1111 (37.3)	333 (30.0)	134 (12.1)	21351 (42.9)	10648 (49.9)	4561 (21.4)
Witnessed by 911 Responder	51 (16.4)	18 (35.3)	9 (17.6)	374 (12.5)	137 (36.6)	53 (14.2)	8546 (17.2)	3918 (45.8)	1729 (20.2)
Sustained ROSC in field	116 (37.3)	71 (61.2)	32 (27.6)	832 (27.9)	554 (66.6)	214 (25.7)	24368 (49.0)	18147 (74.5)	7453 (30.6)
Hypothermia care initiated in the field	6 (1.9)	3 (50.0)	2 (33.3)	50 (1.7)	22 (44.0)	11 (22.0)	3050 (6.1)	1971 (64.6)	690 (22.6)
Utstein† Arrest	40 (12.9)	18 (45.0)	10 (25.0)	305 (10.2)	115 (37.7)	68 (22.3)	7385 (14.8)	4456 (60.3)	2780 (37.6)

Patients are included in the report of the final facility of care. Patients transferred out of your facility (from the ED or after hospital admission) are not included in this report. This report includes only those calls with completed hospital data.  
 CARES case: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.  
 \*Among admitted patients.  
 †Utstein patient: witnessed by bystander and found in a shockable rhythm.

# CARES Hospital Benchmarking Report (Non-Traumatic Etiology)

Sample Report

## Supplemental Hospital elements (analysis limited to questions with Yes or No response only)

Supplemental Characteristics	Hospital		State		National	
	Total (%)	Survived to Discharge (%)	Total (%)	Survived to Discharge (%)	Total (%)	Survived to Discharge (%)
Why was hypothermia care not initiated or continued in the hospital?						
Awake/Following commands	1 (16.7)	1 (100.0)	10 (7.1)	10 (100.0)	920 (24.9)	855 (92.9)
DNR/Family request	1 (16.7)	0 (0.0)	22 (15.6)	0 (0.0)	434 (11.7)	38 (8.8)
Unwitnessed Cardiac Arrest	1 (16.7)	0 (0.0)	14 (9.9)	0 (0.0)	296 (8.0)	46 (15.5)
Unshockable Rhythm	2 (33.3)	0 (0.0)	8 (5.7)	3 (37.5)	374 (10.1)	94 (25.1)
No TH program in place	0 (0.0)	0 (NaN)	1 (0.7)	0 (0.0)	65 (1.8)	22 (33.8)
Other	1 (16.7)	1 (100.0)	86 (61.0)	32 (37.2)	1611 (43.5)	503 (31.2)
Unknown	0 (0.0)	0 (NaN)	0 (0.0)	0 (NaN)	0 (0.0)	0 (NaN)
Myocardial infarction diagnosis	20 (11.0)	5 (25.0)	114 (8.5)	51 (44.7)	4344 (18.2)	1934 (44.5)
Coronary angiography performed	15 (8.2)	10 (66.7)	127 (8.7)	83 (65.4)	4620 (16.7)	3093 (66.9)
Cardiac stent placed	6 (3.3)	4 (66.7)	64 (4.4)	41 (64.1)	2225 (8.0)	1510 (67.9)
CABG performed	1 (0.5)	1 (100.0)	5 (0.3)	5 (100.0)	275 (1.0)	254 (92.4)
ICD placed/scheduled	1 (0.6)	1 (100.0)	35 (2.4)	35 (100.0)	1495 (5.4)	1453 (97.2)

Patients are included in the report of the final facility of care. Patients transferred out of your facility (from the ED or after hospital admission) are not included in this report. This report includes only those calls with completed hospital data.  
 CARES case: An out-of-hospital cardiac arrest where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.  
 \*Among admitted patients.

†Utstein patient: witnessed by bystander and found in a shockable rhythm.

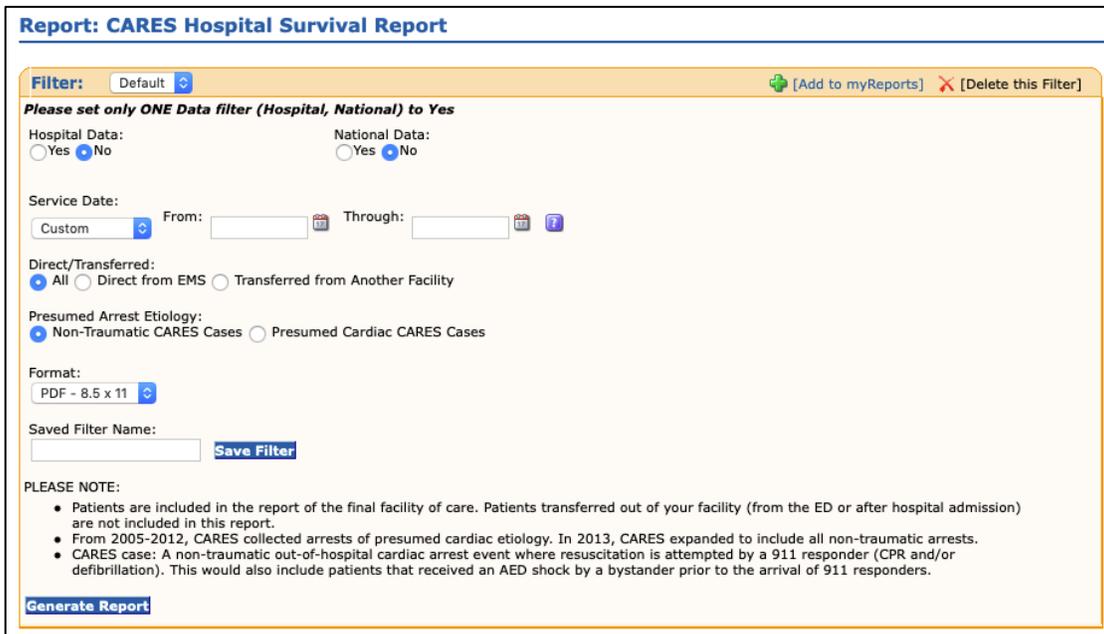
## HOSPITAL SURVIVAL REPORT:

The **CARES Hospital Survival Report** follows a flow diagram format, categorizing arrests by sustained ROSC in the field, initial rhythm, and patient outcome.

To generate this report, access the **“Reports”** tab in your CARES account and click on **“Hospital Survival Report”** in the drop-down menu. To customize your report:

1. Select **“Hospital Data”** = Yes to view your hospital-specific data. Multi-Hospital Users have the option to select **“Hospital Group Data”** to run system-level reports for multiple facilities. Select **“National Data”** = Yes to view aggregate, National data for benchmarking purposes. Please note, only one Data filter may be selected at a time.
2. Enter the Service Date range of interest. Reports using recent data are not completely audited and therefore may be incomplete. Data by calendar year is not finalized until mid-April of the following year. For example, reports including data from 2020 would not be considered final until mid-April 2021.
3. Select origin of patient (Direct from EMS, Transferred from Another Facility, or All).
4. Select Data Type (Non-Traumatic CARES Cases OR Presumed Cardiac CARES Cases).
5. Click **“Generate Report”**.

Inclusion criteria are listed at the top of the report. Patients are included in the report of the *final* facility of care. Patients transferred out of your facility (from the ED or after hospital admission) and are not included in this report.



**Report: CARES Hospital Survival Report**

Filter: Default [Add to myReports] [Delete this Filter]

**Please set only ONE Data filter (Hospital, National) to Yes**

Hospital Data:  Yes  No      National Data:  Yes  No

Service Date: Custom From: [ ] Through: [ ]

Direct/Transferred:  All  Direct from EMS  Transferred from Another Facility

Presumed Arrest Etiology:  Non-Traumatic CARES Cases  Presumed Cardiac CARES Cases

Format: PDF - 8.5 x 11

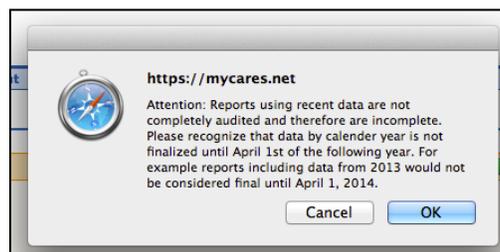
Saved Filter Name: [ ] **Save Filter**

**PLEASE NOTE:**

- Patients are included in the report of the final facility of care. Patients transferred out of your facility (from the ED or after hospital admission) are not included in this report.
- From 2005-2012, CARES collected arrests of presumed cardiac etiology. In 2013, CARES expanded to include all non-traumatic arrests.
- CARES case: A non-traumatic out-of-hospital cardiac arrest event where resuscitation is attempted by a 911 responder (CPR and/or defibrillation). This would also include patients that received an AED shock by a bystander prior to the arrival of 911 responders.

**Generate Report**

After clicking **“Generate Report”**, the pop-up box below will appear. This box reminds you that recent data may not be completely audited; data by calendar year is not finalized until mid-April of the following year. Click OK to acknowledge your understanding of this message.



In the upper right-hand corner of the Hospital Survival Report, you will see a box listing a number of survival rates.

- **Survival to Admission:** Patients who survived to hospital admission (ER Outcome is Admitted to ICU/CCU, floor, or hospital).
- **Survival to Discharge:** Patients who survived to hospital discharge (Hospital Outcome or Patient made DNR Outcome is Discharged Alive).
- **Sustained ROSC Survival:** Survival to hospital discharge among the subset of patients who achieved sustained ROSC in the field.
- **Shockable/Cooled Survival:** Survival to hospital discharge among the subset of patients who presented in a shockable rhythm and received hypothermia care at the hospital.
- **Nonshockable/Cooled Survival:** Survival to hospital discharge among the subset of patients who presented in a nonshockable rhythm and received hypothermia care at the hospital.

#### **Arrest Characteristic & Treatment Definitions:**

**Sustained ROSC in field** – Return of Spontaneous Circulation (ROSC) is defined as the restoration of a palpable pulse or a measureable blood pressure. Sustained ROSC is deemed to have occurred when chest compressions are not required for 20 consecutive minutes and signs of circulation persist.

**Initial Rhythm** – First cardiac rhythm present when a manual monitor/defibrillator or AED is attached to a patient.  
Shockable: includes Ventricular Fibrillation, Ventricular Tachycardia, and Unknown Shockable rhythms  
Unshockable: includes Asystole, Idioventricular/PEA, and Unknown Unshockable rhythms

**In-hospital hypothermia:** Measures were taken in the hospital to reduce the patient’s body temperature by either non-invasive means (administration of cold intravenous saline, external cold pack application to armpits and groin, use of a cooling blanket, torso vest or leg wrap devices) or by invasive means (use of a cooling catheter inserted in the femoral vein).

*\*Please note:* In-hospital hypothermia rate is limited to patients who were admitted to the hospital.

Patients with **Sustained ROSC in the field** are found on page 1. Patients **without sustained ROSC in the field** are found on page 2.

