

Kentucky CARES

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What is CARES?

CARES stands for Cardiac Arrest Registry to Enhance Survival

National Registry of out-of-hospital cardiac arrests (OHCA)

Utilizes an internet database system to help local EMS administrators and medical directors know when and where cardiac arrests occur, and who is affected.

Multiple reports can be generated for benchmarking or identifying problems within the totality of care.

The ultimate goal of CARES is to improve survival from sudden cardiac arrest.

How Does CARES Work? (EMS)

- CARES Case Definition: A non-traumatic out-of-hospital cardiac arrest where resuscitation is attempted by a 911 Responder (CPR and/or defibrillation). This also includes patients that receive an AED shock by a bystander prior to the arrival of 911 Responders.
- Participating EMS agencies have their ePCR's automatically uploaded to CARES after they have been received into the state repository.
- If a patient is delivered to a hospital, and the destination hospital has been selected in the form, after it is saved the form will be sent to the selected hospital so that outcome data can be completed.

The screenshot displays the CARES ePCR form, organized into three main sections:

- Part A: Demographic Information**
 - 1 - Street Address (Where Arrest Occurred): [Text Field]
 - 2 - City: [Text Field]
 - 3 - State: [Dropdown Menu, currently showing 'PR']
 - 4 - Zip Code: [Text Field]
 - 5 - County: [Dropdown Menu]
 - 6 - First Name: [Text Field]
 - 7 - Last Name: [Text Field]
 - 8 - Age: [Text Field] with radio buttons for Days, Months, and Years.
 - 9 - Date of Birth: [Text Field] with a checkbox for 'DOB Unknown'.
 - 10 - Sex: [Radio Buttons for Male and Female]
 - 11 - Race/Ethnicity: [List of checkboxes including American-Indian/Alaska Native, Asian, Black/African-American, Hispanic/Latino, Native Hawaiian/Pacific Islander, White, and Unknown]
 - 12 - Medical History: [List of checkboxes for No, Unknown, Cancer, Diabetes, Heart Disease, Hypertension, Hyperlipidemia, Renal Disease, Respiratory Disease, Stroke, and Other]
- Part B: Run Information**
 - 13 - EMS Agency ID: [Text Field, value '10']
 - 14 - Date of Arrest: [Text Field]
 - 15 - Incident #: [Text Field]
 - 16 - First Responder: [Dropdown Menu]
 - 17 - Destination Hospital: [Dropdown Menu]
 - 18 - [Checkbox for 'No First Responder dispatched']
- Part C: Arrest Information**
 - 19 - Location Type: [List of radio buttons with definitions: Home/Residence, Public/Commercial Building, Street/Highway, Nursing Home, Healthcare Facility, Place of Recreation, Industrial Place]
 - 20 - Arrest Witness Status: [List of radio buttons: Unwitnessed, Witnessed by Bystander, Witnessed by 911 Responder]
 - 21 - Presumed Cardiac Arrest Etiology: [List of radio buttons with definitions: Presumed Cardiac Etiology, Trauma, Respiratory/Apnea, Drowning/Submersion, Electrocution, Exsanguination/Hemorrhage, Drug Overdose]

How Does CARES Work? (Hospital)

- Once a hospital has received a CARES form, a hospital contact will then fill out the remaining 1-5 questions of outcome data.
- Once saved the record is complete.

Part E: Hospital Section - Please complete the following questions

47 - ER Outcome ☐ Died in the ED ☐ Admitted to hospital ☐ Transferred to another acute care facility from the ED	48 - Was hypothermia care/TTM initiated or continued in the hospital ☐ Yes ☐ No	49 - Hospital Outcome ☐ Died in the hospital ☐ Discharged alive ☐ Patient made DNR If yes, choose one of the following: ☐ Transferred to another acute care hospital ☐ Not yet determined	50 - Discharge From The Hospital ☐ Home/Residence ☐ Rehabilitation facility ☐ Skilled Nursing Facility/Hospice	51 - Neurological Outcome At Discharge From Hospital <u>Definitions</u> ☐ Good Cerebral Performance (CPC 1) ☐ Moderate Cerebral Disability (CPC 2) ☐ Severe Cerebral Disability (CPC 3) ☐ Coma, Vegetative State (CPC 4)
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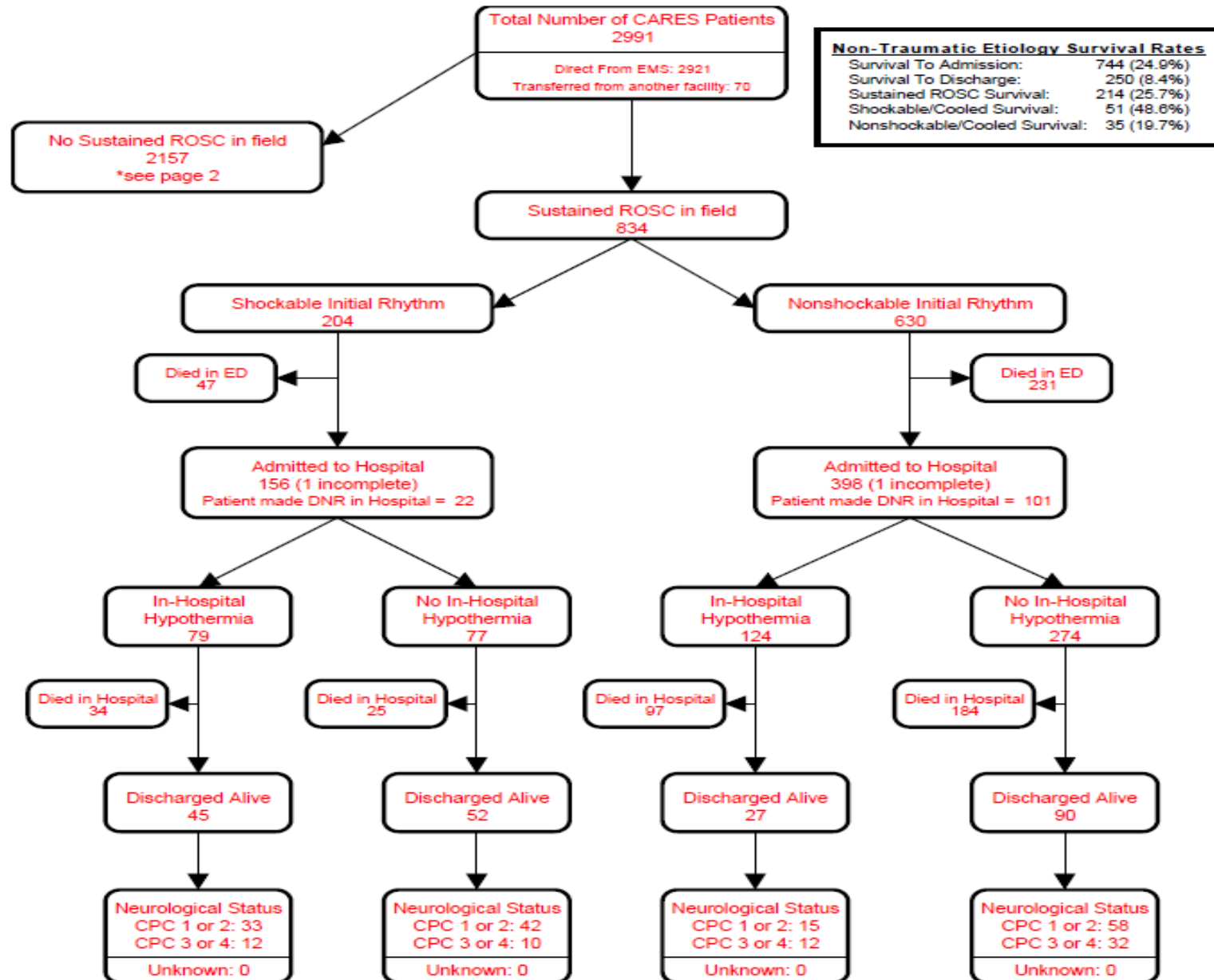
Transferred To:

What reports can be generated?

- The CARES software has a multitude of reports and reporting options.
 - Utstein Survival Report
 - CARES Survival Report
 - CARES Summary Report
 - EMS CAD Times
 - Demographics
 - Hospital Survival Reports
 - CARES Hospital Benchmarking Reports

CARES Hospital Survival Report

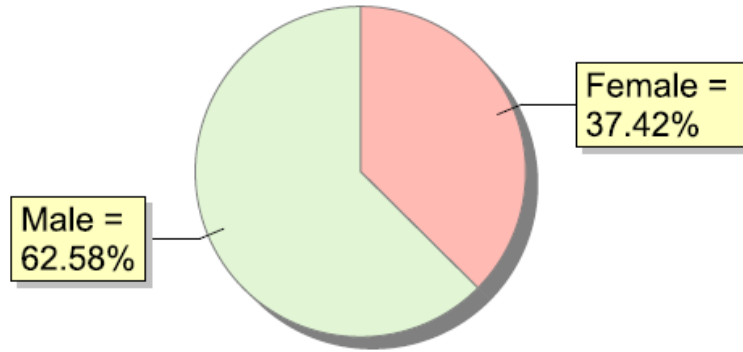
Sample Report



Demographics

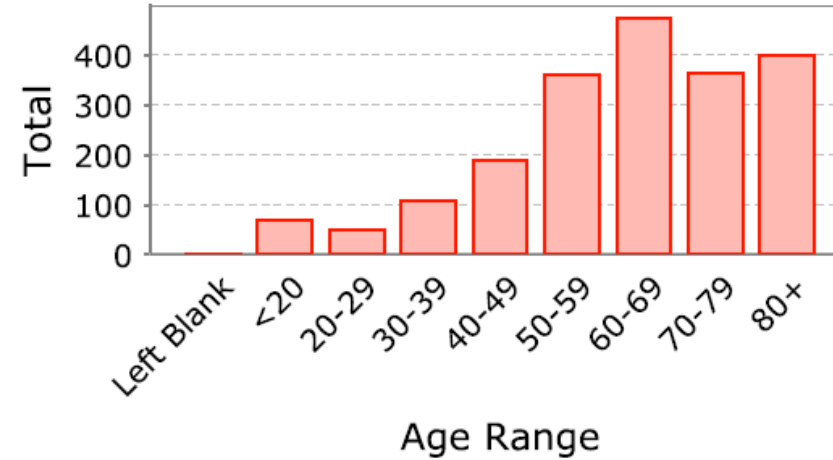
Sample Report

Gender



Female = 754 Male = 1,261

Age



Mean Age: 62.4

Location Type	Count
Home/Residence	1420 - 70.5%
Nursing Home	195 - 9.7%
Public/Commercial Building	152 - 7.5%
Street/Hwy	97 - 4.8%
Healthcare Facility	92 - 4.6%
Place of Recreation	29 - 1.4%
Transport Center	14 - 0.7%
Industrial Place	14 - 0.7%
Other	2 - 0.1%

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 (%)
Gender	311	84 (27.0)	36 (11.6)	2981	743 (24.9)	250 (8.4)	49779	21764 (43.7)	8091 (16.3)
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.

Status of CARES in Kentucky



We currently have 35 EMS agencies participating in CARES.



EMS participation is increasing rapidly

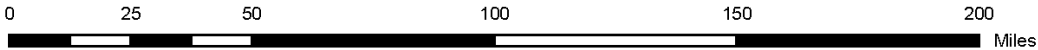
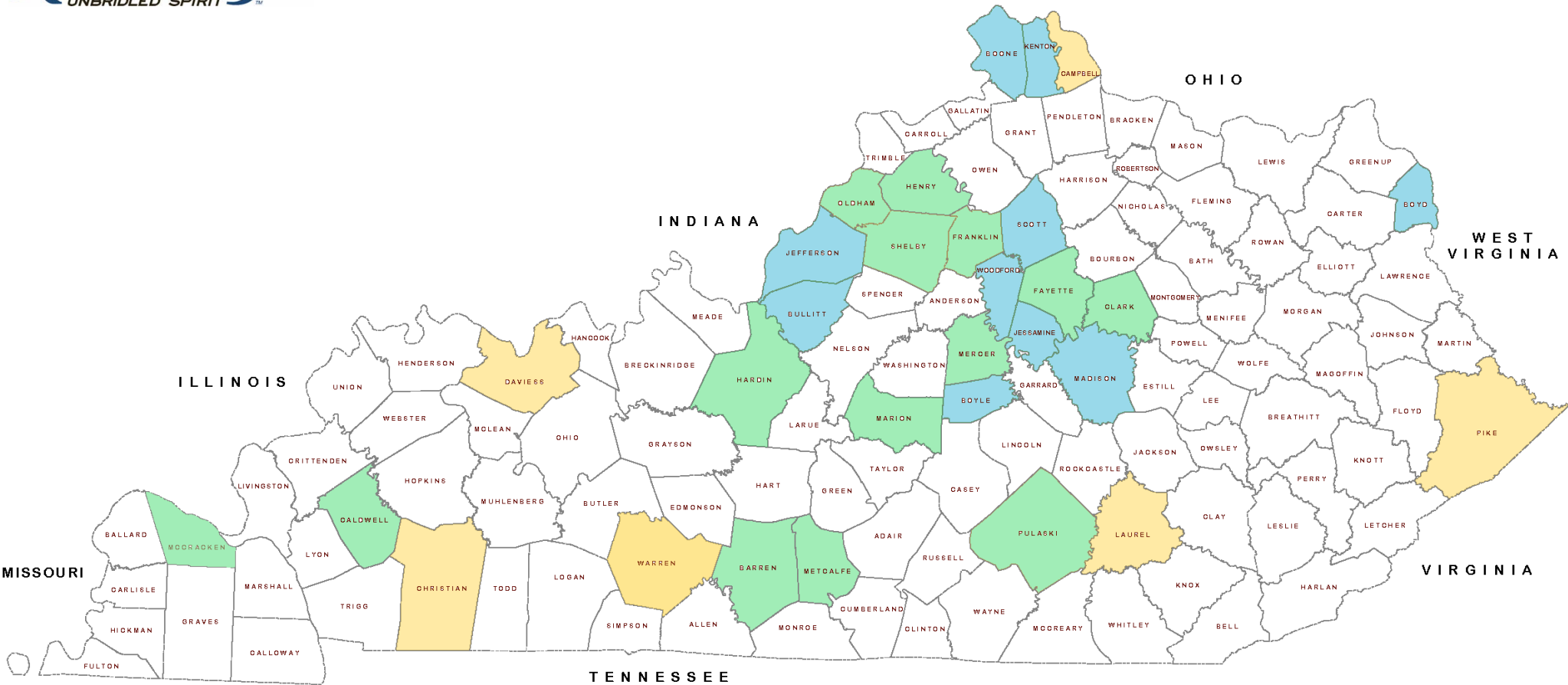
Had less than 20 participating in 2024



We currently have 28 Hospitals participating in CARES.

Hospital participation is also starting to increase rapidly

KENTUCKY COUNTIES



Importance of Participation

More participation = more complete picture of OHCA in Kentucky

Better data to show where we can improve

Hospital participation for outcomes is a high priority

How to Participate in CARES

CARES is FREE

Contact Mark Trivette

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502-764-1506