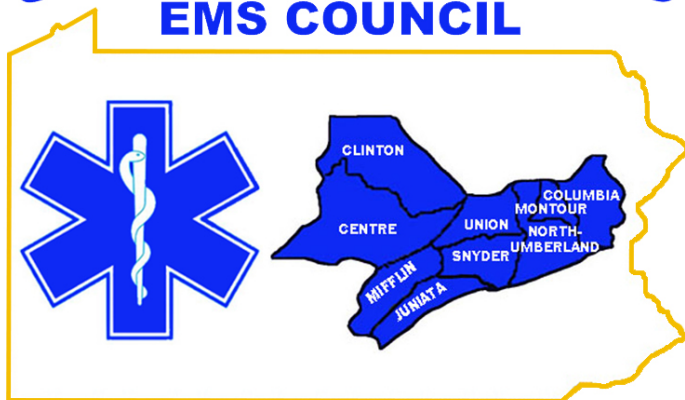


# SEVEN MOUNTAINS EMS COUNCIL



# SEVEN MOUNTAINS EMS COUNCIL ANNUAL REPORT

FISCAL YEAR 2021-22

## Authority

In accordance with the Pennsylvania Department of Health Rules and Regulations 28 Pa. Code § 1021.103, The regional council governing body shall submit an annual report to the Department.

Reporting requirements of Appendix A – Work Statement. Comprehensive Annual Report as related to, Coordinate and Improve the delivery of EMS in the Council's region.

Report are due within 30 calendar days of the end of each state fiscal year (June 30th)

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## REGIONAL SUMMARY:

*(Provide a summary of the council including regional background / demographic and other information unique to individual region / county)*

Seven Mountains EMS Council, incorporated in December 1974 and recognized by the PA Department of Health in March 1975, is one of thirteen (13) organizations currently holding a grant with the Commonwealth of Pennsylvania, PA Department of Health as a Regional EMS Council. The grant is to assist the Department through the Bureau of EMS in coordinating the emergency medical service (EMS) efforts within the Central Pennsylvania counties of Centre, Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder and Union into a unified regional emergency medical services system which is consistent with the Commonwealth EMS system. The Council specifically assists the Bureau of EMS with system planning, development, maintenance, expansion, and improvements by assisting with the implementation of the EMS Systems Act (Act 37 of 2009) as well as providing a forum for feedback from regional agencies, providers and stakeholders on the status of our regional EMS service delivery.

Below is a geographic overview of our Region:

County	Population <sup>1</sup>	Land Area <sup>2</sup>	Facilities				#EMS Calls <sup>5</sup>
			Hospitals	Trauma Centers	Command Facilities	Stroke Centers	
Centre	162,805	1109.92	1	-	1	1 - Primary	20,042
Clinton	38,684	887.98	2	-	1	1 – Primary	5,211
Columbia	65,456	483.11	2	-	2	1 – Acute Stroke Ready	4,378
Juniata	24,704	391.35	-	-	-	-	4,254
Mifflin	46,222	411.03	1	1 <sup>3</sup>	1	1 – Primary	10,271
Montour	18,240	130.24	1	1 <sup>4</sup>	1	1 - Comprehensive	8,406
Northumberland	91,083	458.37	-	-	-	-	20,983
Snyder	40,540	328.71	-	-	-	-	6,439
Union	44,785	315.98	1	-	1	1-Primary	7,331
<b>Regional Total</b>	<b>532,519</b>	<b>4,516.69</b>	<b>8</b>	<b>2</b>	<b>7</b>	<b>6</b>	<b>87,315</b>

<sup>1</sup>2019 Population estimates

<sup>2</sup>Square Miles

<sup>3</sup> Level 4 Trauma Center

<sup>4</sup>Geisinger Medical Center, Montour County, is recognized for both Adult (Level 1) & Pediatric (Level 2) trauma

<sup>5</sup>Based on information obtained from Cloud PCR Bridge. Calendar year 2021. **For representative purposes only.** Excludes QRS and air medical. Shows response of an organization from within the County, not necessarily responding 'within' the County.

The following table provides an overview of the Regional EMS System. EMS is available throughout the Region with some areas being more fully served than others. Overall, populated areas within the region have EMS available within 10 minutes with ALS care available within 20 minutes or less. Council staff continue dialog with organizations to potentially fill the service gaps, especially with establishment of QRS agencies. Likewise, there are also some areas within the region where EMS Agency consolidation could be beneficial to the overall system and potentially improve care available.

County	Agencies			Vehicles						Personnel <sup>2</sup>		
	QRS	BLS	ALS	QRS	BLS	IALS	MICU	Squad	Air <sup>1</sup>	EMSVO	BLS	ALS
Centre	4	7	3	8	22	2	9	5	1	-	204	61
Clinton	6	3	2	11	4	-	5	1	-	-	69	15
Columbia	5	-	3	5	-	-	6	-	-	-	96	39
Juniata	-	5	1	-	14	-	2	-	-	-	68	17
Mifflin	-	3	1	-	9	-	6	1	-	-	87	22
Montour	2	-	2	3	-	-	10	2	-	-	21	13
North- umberland	8	-	6	16	10	-	12	3	-	1	135	64
Snyder	8	6	2	10	14	-	4	-	1	-	95	16
Union	1	3	2	6	6	-	8	1	-	-	65	15
Regional Totals	<b>34</b>	<b>27</b>	<b>22</b>	<b>59</b>	<b>79</b>	<b>-</b>	<b>62</b>	<b>13</b>	<b>2</b>	<b>1</b>	<b>840</b>	<b>262</b>

<sup>1</sup>Location of aircraft – not necessarily headquartered out of the County. Geisinger has a total of 9 aircraft systemwide.

<sup>2</sup>EMS providers residing within the Region as of 6/30/2021. Not necessarily indicative of the number of providers who are actively engaged with a regional EMS agency.

Seven Mountains EMS Council is comprised of 154 organizations (not all currently active, having an appointed delegate) including responder (police, fire, EMS), emergency management, hospital, PSAP, County Government, & consumers. Council delegates meet in October of each year to review the previous year's activities and elect a Board of Directors. The Board of Directors (BoD), consisting of 20 delegates, elect their Board officers and establish a schedule of meeting times & locations. At these meetings, the BoD direct & oversee Council operations and establish program objectives. Board members are elected for a two-year term with half the Board up for election each October. Non-Board delegates are invited to participate in the Board meetings and are extended all privileges other than moving items and casting votes. With the region being so geographically large, we were rotating our meetings between the eastern & western portions of the region. Beginning March 2020, to compliance with the Commonwealth's COVID-19 mitigation efforts, we started conducting our meetings using videoconference technology. As of August 2021, we have been offering both in-person and virtual attendance options for all Board of Director meetings which seem to have helped increase attendance.

**1. Board of Directors \ Health Council Officers**

President: Mike Coldren

Vice President: Gerard Banfill

Treasurer: S. Scott Rhoat

Secretary: S. Scott Rhoat

(Please list all other members below)

<u>NAME</u>		<u>NAME</u>
<u>1 Matthew Abbey –Northumberland FD QRS</u>	19	<u>Laura Shay – Port Royal EMS</u>
<u>2 Chad Aucker – Central Susquehanna 911</u>	20	<u>Allen Weaver – Juniata County EMA</u>
<u>3 Gerard Banfill – Lock Haven EMS</u>	21	<u>Click or tap here to enter text.</u>
<u>4 James Blount III – William Cameron FD</u>	22	<u>Click or tap here to enter text.</u>
<u>5 Robert Bebout – Bloomsburg Amb.<sup>1</sup></u>	23	<u>Click or tap here to enter text.</u>
<u>6 Joy Byler – Big ValleyAmb. Assoc.</u>	24	<u>Click or tap here to enter text.</u>
<u>7 Mike Coldren – FAME EMS</u>	25	<u>Click or tap here to enter text.</u>
<u>8 Tom Derby – Geisinger EMS</u>	26	<u>Click or tap here to enter text.</u>
<u>9 Robert Edwards Jr. – PSU<sup>2</sup></u>	27	<u>Click or tap here to enter text.</u>
<u>10 J. David Jones – University Ambulance</u>	28	<u>Click or tap here to enter text.</u>
<u>11 Cathy Stout - PSU</u>	29	<u>Click or tap here to enter text.</u>
<u>12 Bob Hare – Americus Hose Co. EMS</u>	30	<u>Click or tap here to enter text.</u>
<u>13 Matt Rodgers – Hope Hose Co. #2</u>	31	<u>Click or tap here to enter text.</u>
<u>14 Matt Kurtz – Geisinger EMS</u>	32	<u>Click or tap here to enter text.</u>
<u>15 Romaine Naylor – American Red Cross</u>	33	<u>Click or tap here to enter text.</u>
<u>16 Thomas Perrin – Union CtyWest End EMS</u>	34	<u>Click or tap here to enter text.</u>
<u>17 S. Scott Rhoat – Bellefonte EMS</u>	35	<u>Click or tap here to enter text.</u>
<u>18 Derick Shambach – Snyder Cty. EMA</u>	36	<u>Click or tap here to enter text.</u>

<sup>1</sup> Resigned his Board seat 6/2/22 due to change of affiliation.

<sup>2</sup> Resigned his Board seat 3/4/22 due to retirement.

**2. Regional EMS Council Staff:**

**Executive Director      Timothy E. Nilson**

<u>STAFF POSITION</u>	<u>NAME</u>
<u>Regional Education Coord.</u>	<u>Scott Reiner – resigned 4/8/22</u>
<u>EMS Program Specialist</u>	<u>Cathy Grimes</u>
<u>Office Manager</u>	<u>Laura Rompolski</u>
<u>EMS Program Specialist/CARES</u>	<u>Gage Lyons-McCracken – joined staff 5/31/22</u>
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**3. Regional Medical Director(s)**

	<u>NAME</u>
<u>1</u>	<u>Randi McLeod D.O.</u>
<u>2</u>	<u>Click or tap here to enter text.</u>

4. **Financial Statement of income and expenses:**

	<b>Final Budget</b>	<b>Expended</b>
Personnel Services	294,654.57	294,766.52
Consultant Services	5,600.00	5,600.00
Subcontracted Services	75,824.43	75,708.50
Patient Services	0.00	0.00
Equipment	0.00	0.00
Supplies	45,769.68	19,995.24
Travel	13,560.00	6,660.33
Other Costs	196,343.42	152,425.13
<b>TOTALS</b>	<b>631,752.10</b>	<b>555,555.728</b>

**NOTE:** THE AMOUNTS SHOWN ABOVE ARE PRELIMINARY END OF YEAR TOTALS AND NOT FINAL AUDIT AMOUNT

5. **Special Project Funding:**

Projects as determined by the Department to be appropriate and necessary for the implementation of a comprehensive statewide EMS system. The amounts listed below are included in the categorical totals shown above.

Regional PCR – Data Collection	Amount: \$46,720.80
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*Project Narrative:*

For years now Council has negotiated a contract for PCR access for regional EMS agencies who choose to participate. Council provides access and either tablet & mobile access – other “add-ins” are at the expense of the agency. All transport agencies, other than one, use this access – a few of the QRS agencies also participate.

EMS Provider Safety	Amount: \$4,400
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*Project Narrative:*

Several years ago Council provided EMS safety vests for all the licenses EMS vehicles throughout the Region. We have learned that some of those vests are missing and there are additional vehicles added to fleets since the purchase. Council purchased an additional 200 vests to have available as agencies need them to maintain EMS provider safety during scene response – especially MVA and other roadway incidents.

Patient Moving Devices	Amount: \$22,587.70
------------------------	------------------------

*Project Narrative:*

In an effort to reduce EMS provider lifting & moving injuries, Council has purchased a variety of life-assist devices for distribution to the Regional EMS transport agencies as needed – we purchased some previously and want to give priority to those agencies who haven’t received before. We anticipate offering Lifting & Moving Con-Ed to enhance this equipment distribution.

## 6. Regional Activities/ Organizational Management

Date of the current Comprehensive Regional EMS System Plan	Date 2011 <sup>1</sup>
Number of Board of Director Meetings \ Health Council meetings	6
Public Education Stop-the-Bleed Events	0 <sup>2</sup>
Public Education CPR Events	Unknown <sup>3</sup>
Number of Legislative Inquiries or Contacts	1 <sup>4</sup>
Technical Assistance Request (local entities and elected officials)	7 <sup>5</sup>

### *Regional Activities/ Organizational Management Project Narrative:*

<sup>1</sup>As per Bureau of EMS direction, the annual plan has been referenced with minimal review other than resource updates since 2011. We are waiting for the development and adoption of a Commonwealth EMS System Plan from which we will format & develop our regional plan. Council & Regional EMS agencies actively participated in the planning workshops conducted in 2012 and are awaiting further guidance.

<sup>2</sup>Council staff has not conducted any Stop-the-Bleed events due to COVID restrictions. We have loaned the equipment/supplies out to regional organizations who have conducted training and distributed tourniquets to active regional providers during EMS Week.

<sup>3</sup>Council staff has not conducted public CPR events – even our regular Farm Show & Camp Cadet offerings were impacted by COVID; but, we are an AHA training center with a little over 100 BCLS instructors and 5 recognized training sites. Council supports these instructors (supplies & technical) and processes the rosters for AHA completion card distribution. BCLS activities decreased with COVID but are picking back up. We have processed over 1500 individuals – supporting our community training sites in providing this public outreach.

Council completed 63 Fatal Accident Report System (FARS) reports and submitted the requested information to PennDOT.

<sup>4</sup>These contacts revolve around the Legislative Breakfast conducted in March. Other than that, we have not been contacted by or in contact with any legislator about a concern, problem or issue.

<sup>5</sup>The quantity doesn't represent the significance. We have fielded calls from municipal leaders concerning 'staffing', 'response', 'substation/dispatching' issues – handling them as appropriate but some are multiple contacts listed a one. This included contact with every municipality within the Region requesting them to adopt a proclamation for EMS Week & working with some with the proclamation; several meetings in one of the Counties to participate in on-going discussions about a County Wide or Broader Response Plan; attendance (multiple times) in county/area advisory group meetings (Centre County Amb. Assoc., Central Susquehanna Regional 991 Advisory, EMS Leadership Committee, etc.) where elected officials (or their representatives) are sometimes in attendance.

## 7. Continuous Quality Improvement

	Quantity
Number of Clinical Cases Reviewed by Regional QI Committee	41 <sup>1</sup>
Accidents Involving Ambulances / EMS Personnel Reported in the Region	2
Number of Times the Regional QI Committee Met	4



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*Continuous Quality Improvement Narrative:*

<sup>1</sup>These are medication usage reviews conducted by MAC as required within the program participation guidelines. No investigation/complaint reviews were forwarded to MAC. The Regional Medical Director does review, and as available participates in provider interviews, on all – as long as it is a patient care issue and/or has a clinical element - complaint investigation authorizations received.

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**8. Medical Direction**

	Quantity
Regional Medical Advisory Committee meetings	4
Accredited Level I Trauma Centers	1
Accredited Level II Trauma Centers	0
Accredited Level III Trauma Centers	0
Accredited Level IV Trauma Centers	1
Accredited primary Stroke Centers	4
Comprehensive Stroke Centers	1
Thrombectomy Capable Stroke Centers	0
Acute Stroke-Ready Hospitals	1

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*Medical Direction Narrative:*

Inspected four of the region’s Medical Command Facilities for reauthorization. All were successful inspections with one placed on provisional due to the lack of communications capabilities with responding units – this problem has since been corrected.

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**9. Systems Operations**

	Quantity
Spot inspections conducted – EMS Agencies	4
Spot inspections conducted – EMS Vehicles	3
Spot inspections conducted – Continuing Education Sponsors	0
Spot inspections conducted – Education Institutes	0
Spot inspections conducted – Medical Command Facilities	3
Number of Safety Inspections Conducted	0
Number of Vehicles Inspected During Safety Inspection	0

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Photo & Signatures Added to Certification Cards	168 <sup>1</sup>
BLS Psychomotor Examinations Conducted	6
Number of BLS Psychomotor Exam Candidates Tested.	145
ALS Psychomotor Examinations Conducted	0
Number of ALS Psychomotor Exam Candidates Tested	0
Certification Class Visits Conducted	12
Number of EMS Agency Re-Inspections Conducted	37
Number of Authorized Inquiry Reports Filed with the Bureau	12

*Systems Operations Narrative:*

Most visits & spot/safety inspections were put on hold due to COVID-19 concerns. Expect to ramp back up during the 2022-23 grant year.

Some of the EMS agency re-inspections were for the agency's 3-year renewal, some were for new vehicles, and some were for new sub-stations.

<sup>1</sup>Number provided is a conservative estimate as I don't have the exact number of photo's/signatures uploaded

We also assisted our neighbor – Southern Alleghenies EMS Council – with staff support during several EMS agency licensure inspections & one practical examination.

**10. Emergency Preparedness Activities**

	Quantity
Coalition / Task Force Meetings Attended <small>(only EMSOF funded staff attendance)</small>	22
Table Top Exercises Attended / Conducted	1
Full Scale / Functional Exercises Attended / Conducted	0
Special Event Plans Submitted	3
Responses / Deployments	3
Strike Team Agencies	4

*Emergency Preparedness Narrative:*

We have loaned equipment, especially the Kubota, to multiple events throughout year; but I don't consider them 'responses/deployments'. Identified are the situations where a PEMA deployment # was issued.

Strike Team Agencies is a good question – I don't currently know who is considered 'active' with the Bureau – I know who I can call and likely get assistance if and when needed.

## **11. Board of Director \ Health Council Meetings**

DATE:	TIME	LOCATION
8/19/2021	Noon	BOD – Union County Govt. Center & Conference Call
10/21/2021	18:30	Council – Council Bellefonte Office & Conference Call
10/21/2021	20:00	BOD – Council Bellefonte Office & Conference Call
1/20/2022	Noon	BOD – Council Bellefonte Office & Conference Call
4/21/2022	Noon	BOD – Union County Govt. Center & Conference Call
6/16/2022	Noon	BOD – Council Bellefonte Office & Conference Call

## **12. Medical Advisory Committee Meeting**

DATE:	TIME	LOCATION
9/7/2011	10:00	Teleconference
12/7/2021	10:00	Teleconference from Council office.
3/11/2022	10:00	Face-to-face & videoconference from Council Conference
6/6/2022	10:00	Teleconference from Council office.

## **13. Quality Improvement Committee Meeting**

DATE:	TIME	LOCATION
9/7/2021	10:00	Teleconference
12/7/2021	10:00	Teleconference
3/11/2022	10:00	Teleconference
6/6/2022	10:00	Teleconference to discuss EMD protocol update

For several years, MAC & QIC have been meeting simultaneously. Starting in 2022-23 grant cycle, they are being separated so allow for a more focused QIC process.

## **14. Regional Accomplishments:**

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Narrative:

**Legislative Breakfast** – Council, with financial assistance from Centre Region COG, held our second legislative breakfast in State College in March. Public Officials (Senators, Representatives, Commissioners) from throughout the Region were invited to attend this session to hear first-hand the challenges facing the EMS system and to be an active participant in a brainstorming session to formulate a plan to overcome identified obstacles. Excluding staff, there were 54 individuals in attendance – 21 public officials & 33 EMS personnel. Productive, collegial dialogue between the legislators & EMS providers was recognized by all attendees. Mr. Gary Waters, Executive Director for AMED discussed his experiences in agency consolidations relative to QRS agencies being integrated within the AMED organization – which has been successful for them in providing quicker care to residents – especially in outlying areas. The session concluded with some summary remarks from Director Rhone, PA DOH Bureau of EMS.

**CISM** – Seven Mountains collaborates with LTS EMS Council to maintain an active critical incident stress management (CISM) team to debrief/defuse emergency providers after a major event or special situation/event that triggers an unhealthy, potentially responder disabling response. The team – Seven Mountains/Susquehanna CISM – is about 40 members strong; is coordinated by a

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Licensed Psychologist; and integrates training individuals from a variety of disciplines – police, fire, EMS, dispatch, nursing, clergy, corrections, coroner, and mental health. We are recognized by and/or work in coordination with the International Critical Incident Stress Foundation (ICISF), the SouthCentral Mountains & NorthCentral Task Forces, the Keystone Healthcare Coalition, PEHSC, and sister teams in Southern Alleghenies & Eastern EMS Councils. The team is available 24/7/365 with initial contact through the Lycoming or Mifflin County PSAPs and coordination of activities conducted by the EMS Program Specialist utilizing SERV-PA. During the 2021-22 grant period, the team was requested for a total of 17 incident requests and coordinated training offered to area providers on Trauma & Suicide Prevention. A total of 40 individuals from several EMS Regions attended the training

**Annual Conference** – Following a two-year hiatus (one cancelled & one virtual, Council was able to conduct an in-person Regional conference this March in State College. Over 120 EMS providers were able to choose between 42 course offerings to maintain/upgrade their skill level and/or knowledge of EMS System issues. The conference was a success with just over 1800 hours of continuing education credit being awarded. Along with the educational opportunities, we organized a social event (Hawaii themed) where the providers were able to relax and catch up with old and new friends – exchanging ideas and ‘war’ stories. Northumberland County was highlighted on this year’s challenge coin.

**RURAL EDUCATION-** With the newly designated ‘rural education’ funds, Council continued our National Registry voucher program (just modified the funding source) and started offering tuition assistance to individuals within the Region, who are affiliated with a licensed EMS agency, assisting with tuition and book costs associated with enrolling in an EMS program which leads to certification. The following vouchers were issued during this grant period: 57 EMT; 81 EMT; 7 AEMT; 6 Para totaling \$14,647. Likewise, we committed \$31,634 to helping individuals cover the tuition/text cost for certification courses. 44 candidates submitted applications as follows: 5 EMR; 31 EMT; and 8 AEMT. I expect this program to expand next year as I am hearing that individual didn’t know it was available – even though we advertised it widely.

**EMD UPDATE** – Regional MAC recognized the need to review our current regionally approved EMD protocols to address relatively new issues including Advanced EMTs and the ever-increasing need to potentially ‘stack’ calls for EMS assistance as long as the request meets specific, medically approved guidelines. A work group of medical directors, agency managers, providers, and PSAP personnel have started work on this update which is anticipated to be complete by the end of 2022 or early 2023.

**CARES** – We lost our CARES coordinator the end of June 2021 so Council has had very little activity with care this grant cycle. CARES National handled a large majority of the day-to-day operations & database verification with the council director assisting with password & personnel verification issues. A new CARES coordinator has been hired and started late May so we will be taking a more active role with database validity and CARES expansion this grant cycle. We are still working primarily off money provided through a Medtronic Foundation Grant years ago. With the national fee increase this past year, Council and Bureau staff will need to discuss options to maintain the project within current budget allotments. With Seven Mountains being the host for PA CARES, a copy of the 2021 PA CARES report is attached.

# CARES Summary Report

## Demographic and Survival Characteristics of OHCA

Non-Traumatic Etiology | Arrest Witness Status: All | Date of Arrest: 01/01/21 - 12/31/21

Data	Pennsylvania N=8062
<b>Age</b>	<b>N=8061</b>
Mean	62.0
Median	64.0
<b>Gender (%)</b>	<b>N=8057</b>
Female	3019 (37.5)
Male	5037 (62.5)
<b>Race (%)</b>	<b>N=8062</b>
American-Indian/Alaskan	2 (0.0)
Asian	94 (1.2)
Black/African-American	1810 (22.5)
Hispanic/Latino	332 (4.1)
Native Hawaiian/Pacific Islander	8 (0.1)
White	4764 (59.1)
Multi-racial	17 (0.2)
Unknown	1035 (12.8)
<b>Location of Arrest (%)</b>	<b>N=8062</b>
Home/Residence	5864 (72.7)
Nursing Home	895 (11.1)
Public Setting	1303 (16.2)
<b>Arrest witnessed (%)</b>	<b>N=8061</b>
Bystander Witnessed	3125 (38.8)
Witnessed by 911 Responder	988 (12.3)
Unwitnessed	3948 (49.0)
<b>Who Initiated CPR? (%)</b>	<b>N=8062</b>
Not Applicable	5 (0.1)
Bystander	3121 (38.7)
First Responder	2688 (33.3)
Emergency Medical Services (EMS)	2248 (27.9)
<b>Was an AED applied prior to EMS arrival? (%)</b>	<b>N=8062</b>
Yes	3198 (39.7)
No	4864 (60.3)
<b>Who first applied automated external defibrillator? (%)</b>	<b>N=3196</b>
Bystander	850 (26.6)
First Responder	2346 (73.4)
<b>Who first defibrillated the patient?* (%)</b>	<b>N=8061</b>
Not Applicable	5833 (72.4)
Bystander	143 (1.8)
First Responder	511 (6.3)
Responding EMS Personnel	1574 (19.5)
<b>First Arrest Rhythm (%)</b>	<b>N=8059</b>
Vfib/Vtach/Unknown Shockable Rhythm	1291 (16.0)
Asystole	4305 (53.4)
Idioventricular/PEA	1768 (21.9)
Unknown Unshockable Rhythm	695 (8.6)
<b>Sustained ROSC (%)</b>	<b>N=8044</b>
Yes	2438 (30.3)
No	5606 (69.7)
<b>Was hypothermia care provided in the field? (%)</b>	<b>N=8062</b>
Yes	48 (0.6)
No	8014 (99.4)
<b>Pre-hospital Outcome (%)</b>	<b>N=8062</b>
Pronounced in the Field	3251 (40.3)
Pronounced in ED	775 (9.6)
Ongoing Resuscitation in ED	4036 (50.1)
<b>Overall Survival (%)</b>	<b>N=8062</b>
Overall Survival to Hospital Admission	2023 (25.1)
Overall Survival to Hospital Discharge	707 (8.8)
With Good or Moderate Cerebral Performance	552 (6.8)
Missing hospital outcome	41
<b>Utstein<sup>1</sup> Survival (%)</b>	<b>N=783</b>
	28.1%
<b>Utstein Bystander<sup>2</sup> Survival (%)</b>	<b>N=449</b>
	30.3%

*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)*

# CARES Survival Report

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21 | Non-Traumatic Etiology

	OVERALL N = 8021				
	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>	8021	2415 (30.1)	2020 (25.2)	707 (8.8)	552 (6.9)
<b>Location of Arrest</b>					
Home/Residence	5845 (72.9)	1721 (29.4)	1426 (24.4)	454 (7.8)	352 (6.0)
Nursing Home	894 (11.1)	193 (21.6)	121 (13.5)	30 (3.4)	11 (1.2)
Public Setting	1282 (16.0)	501 (39.1)	473 (36.9)	223 (17.4)	189 (14.7)
<b>Arrest Witnessed Status</b>					
Unwitnessed	3935 (49.1)	811 (20.6)	663 (16.8)	152 (3.9)	110 (2.8)
Bystander witnessed	3106 (38.7)	1211 (39.0)	1015 (32.7)	408 (13.1)	328 (10.6)
911 Responder witnessed	979 (12.2)	393 (40.1)	342 (34.9)	147 (15.0)	114 (11.6)
<b>Bystander CPR*</b>					
Bystander CPR	3109 (44.2)	907 (29.2)	757 (24.3)	307 (9.9)	256 (8.2)
No Bystander CPR	3932 (55.8)	1115 (28.4)	921 (23.4)	253 (6.4)	182 (4.6)
Bystander CPR (excludes nursing home/healthcare facility events)	2160 (35.9)	657 (30.4)	594 (27.5)	248 (11.5)	219 (10.1)
No Bystander CPR (excludes nursing home/healthcare facility events)	3865 (64.1)	1106 (28.6)	913 (23.6)	249 (6.4)	179 (4.6)
<b>Initial Arrest Rhythm</b>					
Shockable	1284 (16.0)	623 (48.5)	564 (43.9)	330 (25.7)	289 (22.5)
Non-shockable	6734 (84.0)	1792 (26.6)	1455 (21.6)	376 (5.6)	262 (3.9)
<b>AED Use</b>					
Bystander AED use*	844 (12.0)	232 (27.5)	175 (20.7)	77 (9.1)	56 (6.6)
Bystander AED use* (excludes nursing home/healthcare facility events)	148 (2.5)	48 (32.4)	54 (36.5)	32 (21.6)	31 (20.9)
Trained provider (First Responder) AED use	2337 (29.1)	683 (29.2)	580 (24.8)	176 (7.5)	143 (6.1)
<b>Utstein</b>					
Witnessed and shockable	937 (11.7)	482 (51.4)	451 (48.1)	279 (29.8)	251 (26.8)
Bystander witnessed and shockable	777 (9.7)	392 (50.5)	367 (47.2)	220 (28.3)	194 (25.0)
<b>Hypothermia</b>					
Field hypothermia	48 (0.6)	26 (54.2)	20 (41.7)	5 (10.4)	4 (8.3)
In-hospital hypothermia/TTM (among admitted patients)	924 (45.7)	--	--	253 (27.4)	156 (16.9)

**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=41).

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

<sup>†</sup>CPC missing for 2 patients.

# CARES Survival Report

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21 | Non-Traumatic Etiology

	Age = <1 years N = 83				
	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>	83	10 (12.0)	12 (14.5)	6 (7.2)	5 (6.0)
<b>Location of Arrest</b>					
Home/Residence	77 (92.8)	9 (11.7)	11 (14.3)	5 (6.5)	4 (5.2)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	6 (7.2)	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)
<b>Arrest Witnessed Status</b>					
Unwitnessed	63 (75.9)	4 (6.3)	7 (11.1)	3 (4.8)	2 (3.2)
Bystander witnessed	16 (19.3)	5 (31.2)	3 (18.8)	2 (12.5)	2 (12.5)
911 Responder witnessed	4 (4.8)	1 (25.0)	2 (50.0)	1 (25.0)	1 (25.0)
<b>Bystander CPR*</b>					
Bystander CPR	27 (34.2)	2 (7.4)	2 (7.4)	1 (3.7)	1 (3.7)
No Bystander CPR	52 (65.8)	7 (13.5)	8 (15.4)	4 (7.7)	3 (5.8)
Bystander CPR (excludes nursing home/healthcare facility events)	27 (34.2)	2 (7.4)	2 (7.4)	1 (3.7)	1 (3.7)
No Bystander CPR (excludes nursing home/healthcare facility events)	52 (65.8)	7 (13.5)	8 (15.4)	4 (7.7)	3 (5.8)
<b>Initial Arrest Rhythm</b>					
Shockable	2 (2.4)	1 (50.0)	1 (50.0)	1 (50.0)	1 (50.0)
Non-shockable	81 (97.6)	9 (11.1)	11 (13.6)	5 (6.2)	4 (4.9)
<b>AED Use</b>					
Bystander AED use*	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Bystander AED use* (excludes nursing home/healthcare facility events)	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Trained provider (First Responder) AED use	18 (21.7)	3 (16.7)	3 (16.7)	1 (5.6)	1 (5.6)
<b>Utstein</b>					
Witnessed and shockable	1 (1.2)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)
Bystander witnessed and shockable	1 (1.2)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)
<b>Hypothermia</b>					
Field hypothermia	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
In-hospital hypothermia/TTM (among admitted patients)	4 (33.3)	--	--	1 (25.0)	1 (25.0)

**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=3).

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

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

# CARES Survival Report

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21 | Non-Traumatic Etiology

	Age = 1 - 12 years N = 64				
	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>	64	20 (31.2)	26 (40.6)	9 (14.1)	9 (14.1)
<b>Location of Arrest</b>					
Home/Residence	52 (81.2)	15 (28.8)	21 (40.4)	5 (9.6)	5 (9.6)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	12 (18.8)	5 (41.7)	5 (41.7)	4 (33.3)	4 (33.3)
<b>Arrest Witnessed Status</b>					
Unwitnessed	41 (64.1)	8 (19.5)	13 (31.7)	2 (4.9)	2 (4.9)
Bystander witnessed	21 (32.8)	11 (52.4)	12 (57.1)	7 (33.3)	7 (33.3)
911 Responder witnessed	2 (3.1)	1 (50.0)	1 (50.0)	0 (0.0)	0 (0.0)
<b>Bystander CPR*</b>					
Bystander CPR	28 (45.2)	11 (39.3)	13 (46.4)	6 (21.4)	6 (21.4)
No Bystander CPR	34 (54.8)	8 (23.5)	12 (35.3)	3 (8.8)	3 (8.8)
Bystander CPR (excludes nursing home/healthcare facility events)	27 (44.3)	11 (40.7)	13 (48.1)	6 (22.2)	6 (22.2)
No Bystander CPR (excludes nursing home/healthcare facility events)	34 (55.7)	8 (23.5)	12 (35.3)	3 (8.8)	3 (8.8)
<b>Initial Arrest Rhythm</b>					
Shockable	2 (3.1)	1 (50.0)	2 (100.0)	1 (50.0)	1 (50.0)
Non-shockable	62 (96.9)	19 (30.6)	24 (38.7)	8 (12.9)	8 (12.9)
<b>AED Use</b>					
Bystander AED use*	2 (3.2)	1 (50.0)	1 (50.0)	1 (50.0)	1 (50.0)
Bystander AED use* (excludes nursing home/healthcare facility events)	1 (1.6)	1 (100.0)	1 (100.0)	1 (100.0)	1 (100.0)
Trained provider (First Responder) AED use	24 (37.5)	8 (33.3)	9 (37.5)	0 (0.0)	0 (0.0)
<b>Utstein</b>					
Witnessed and shockable	2 (3.1)	1 (50.0)	2 (100.0)	1 (50.0)	1 (50.0)
Bystander witnessed and shockable	2 (3.1)	1 (50.0)	2 (100.0)	1 (50.0)	1 (50.0)
<b>Hypothermia</b>					
Field hypothermia	2 (3.1)	1 (50.0)	2 (100.0)	0 (0.0)	0 (0.0)
In-hospital hypothermia/TTM (among admitted patients)	3 (11.5)	--	--	0 (0.0)	0 (0.0)

**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=0).

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

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



# CARES Survival Report

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21 | Non-Traumatic Etiology

	Age = 13 - 18 years N = 35				
	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>	35	12 (34.3)	12 (34.3)	2 (5.7)	1 (2.9)
<b>Location of Arrest</b>					
Home/Residence	28 (80.0)	11 (39.3)	11 (39.3)	1 (3.6)	0 (0.0)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	7 (20.0)	1 (14.3)	1 (14.3)	1 (14.3)	1 (14.3)
<b>Arrest Witnessed Status</b>					
Unwitnessed	21 (60.0)	8 (38.1)	8 (38.1)	0 (0.0)	0 (0.0)
Bystander witnessed	13 (37.1)	4 (30.8)	4 (30.8)	2 (15.4)	1 (7.7)
911 Responder witnessed	1 (2.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
<b>Bystander CPR*</b>					
Bystander CPR	16 (47.1)	6 (37.5)	6 (37.5)	0 (0.0)	0 (0.0)
No Bystander CPR	18 (52.9)	6 (33.3)	6 (33.3)	2 (11.1)	1 (5.6)
Bystander CPR (excludes nursing home/healthcare facility events)	16 (47.1)	6 (37.5)	6 (37.5)	0 (0.0)	0 (0.0)
No Bystander CPR (excludes nursing home/healthcare facility events)	18 (52.9)	6 (33.3)	6 (33.3)	2 (11.1)	1 (5.6)
<b>Initial Arrest Rhythm</b>					
Shockable	7 (20.0)	2 (28.6)	2 (28.6)	1 (14.3)	1 (14.3)
Non-shockable	28 (80.0)	10 (35.7)	10 (35.7)	1 (3.6)	0 (0.0)
<b>AED Use</b>					
Bystander AED use*	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Bystander AED use* (excludes nursing home/healthcare facility events)	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Trained provider (First Responder) AED use	18 (51.4)	7 (38.9)	6 (33.3)	1 (5.6)	1 (5.6)
<b>Utstein</b>					
Witnessed and shockable	6 (17.1)	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)
Bystander witnessed and shockable	6 (17.1)	1 (16.7)	1 (16.7)	1 (16.7)	1 (16.7)
<b>Hypothermia</b>					
Field hypothermia	1 (2.9)	1 (100.0)	1 (100.0)	0 (0.0)	0 (0.0)
In-hospital hypothermia/TTM (among admitted patients)	2 (16.7)	--	--	0 (0.0)	0 (0.0)

**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=1).

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

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

# CARES Survival Report

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21 | Non-Traumatic Etiology

	Age = >18 years N = 7831				
	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>	7831	2372 (30.3)	1967 (25.1)	689 (8.8)	536 (6.8)
<b>Location of Arrest</b>					
Home/Residence	5681 (72.5)	1685 (29.7)	1380 (24.3)	442 (7.8)	342 (6.0)
Nursing Home	893 (11.4)	193 (21.6)	121 (13.5)	30 (3.4)	11 (1.2)
Public Setting	1257 (16.1)	494 (39.3)	466 (37.1)	217 (17.3)	183 (14.6)
<b>Arrest Witnessed Status</b>					
Unwitnessed	3809 (48.6)	791 (20.8)	635 (16.7)	147 (3.9)	106 (2.8)
Bystander witnessed	3050 (39.0)	1191 (39.0)	994 (32.6)	397 (13.0)	318 (10.4)
911 Responder witnessed	971 (12.4)	390 (40.2)	338 (34.8)	145 (14.9)	112 (11.5)
<b>Bystander CPR*</b>					
Bystander CPR	3036 (44.3)	888 (29.2)	736 (24.2)	300 (9.9)	249 (8.2)
No Bystander CPR	3823 (55.7)	1094 (28.6)	893 (23.4)	244 (6.4)	175 (4.6)
Bystander CPR (excludes nursing home/healthcare facility events)	2089 (35.7)	638 (30.5)	573 (27.4)	241 (11.5)	212 (10.1)
No Bystander CPR (excludes nursing home/healthcare facility events)	3756 (64.3)	1085 (28.9)	885 (23.6)	240 (6.4)	172 (4.6)
<b>Initial Arrest Rhythm</b>					
Shockable	1273 (16.3)	619 (48.6)	559 (43.9)	327 (25.7)	286 (22.5)
Non-shockable	6555 (83.7)	1753 (26.7)	1407 (21.5)	361 (5.5)	249 (3.8)
<b>AED Use</b>					
Bystander AED use*	841 (12.3)	231 (27.5)	174 (20.7)	76 (9.0)	55 (6.5)
Bystander AED use* (excludes nursing home/healthcare facility events)	147 (2.5)	47 (32.0)	53 (36.1)	31 (21.1)	30 (20.4)
Trained provider (First Responder) AED use	2277 (29.1)	665 (29.2)	562 (24.7)	174 (7.6)	141 (6.2)
<b>Utstein</b>					
Witnessed and shockable	928 (11.9)	479 (51.6)	447 (48.2)	276 (29.7)	248 (26.7)
Bystander witnessed and shockable	768 (9.8)	389 (50.7)	363 (47.3)	217 (28.3)	191 (24.9)
<b>Hypothermia</b>					
Field hypothermia	45 (0.6)	24 (53.3)	17 (37.8)	5 (11.1)	4 (8.9)
In-hospital hypothermia/TTM (among admitted patients)	914 (46.5)	--	--	252 (27.6)	155 (17.0)

**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=37).

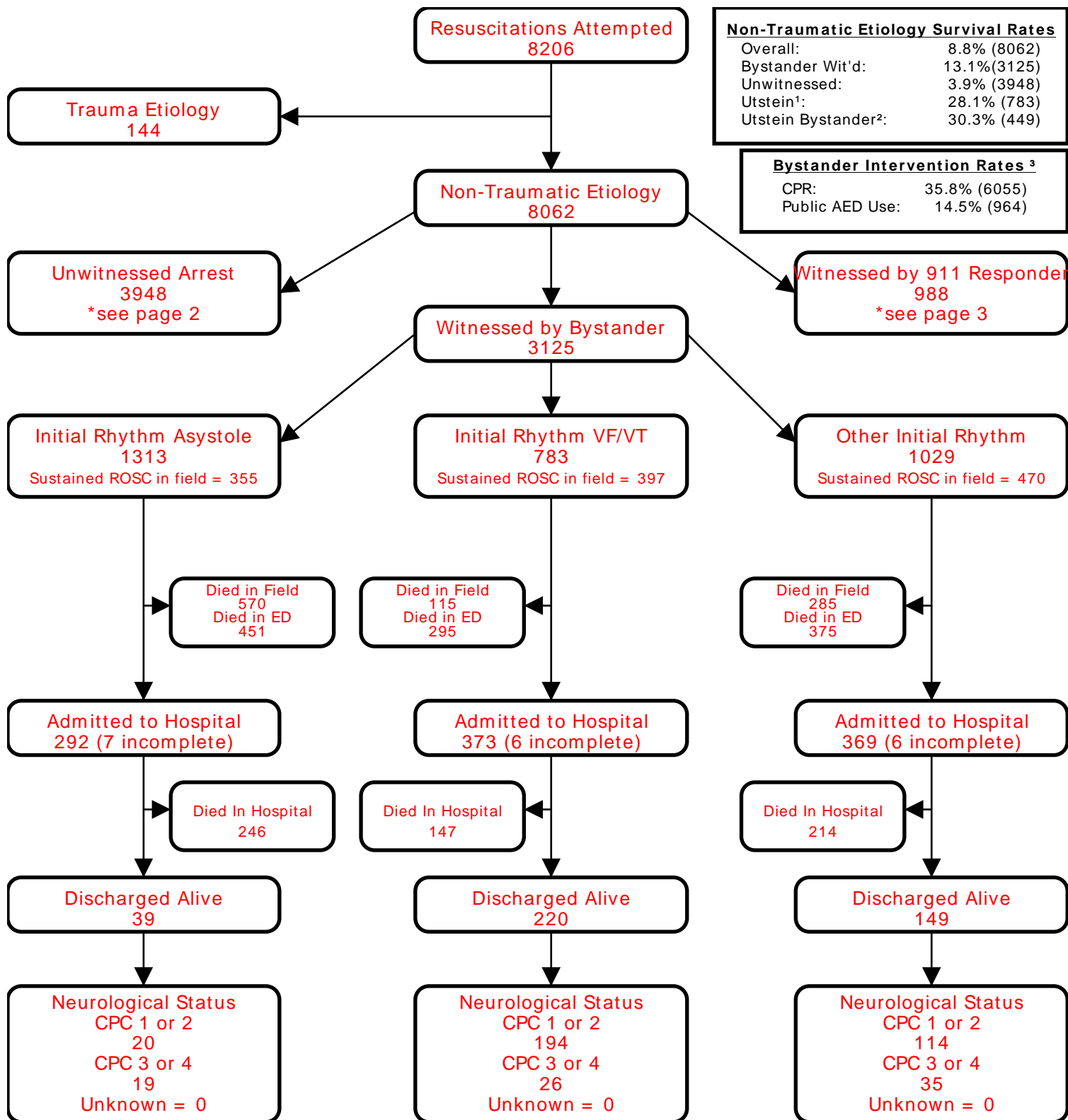
\*Bystander CPR and bystander AED use calculations exclude 911 Responder witnessed events.

<sup>†</sup>CPC missing for 2 patients.

# Utstein Survival Report

All Agencies

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21



Non-Traumatic Etiology Survival Rates	
Overall:	8.8% (8062)
Bystander Wit'd:	13.1%(3125)
Unwitnessed:	3.9% (3948)
Utstein <sup>1</sup> :	28.1% (783)
Utstein Bystander <sup>2</sup> :	30.3% (449)

Bystander Intervention Rates <sup>3</sup>	
CPR:	35.8% (6055)
Public AED Use:	14.5% (964)

<sup>1</sup>Utstein: Witnessed by bystander and found in shockable rhythm.

<sup>2</sup>Utstein Bystander: Witnessed by bystander, found in shockable rhythm, and received some bystander intervention (CPR and/or AED application).

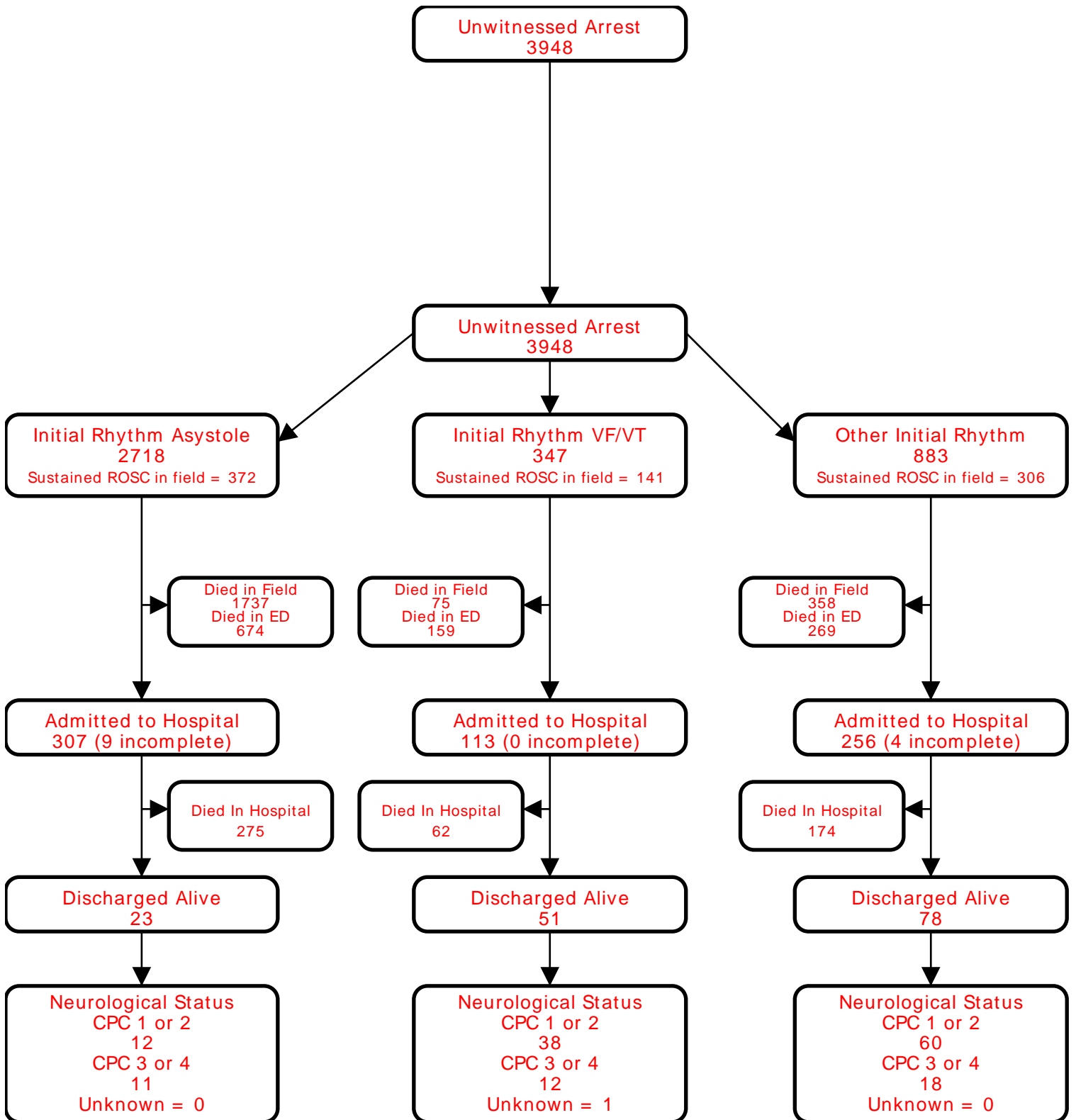
<sup>3</sup>Bystander CPR rate excludes 911 Responder Witnessed, Nursing Home, and Healthcare Facility arrests. Public AED Use rate excludes 911 Responder Witnessed, Home/Residence, Nursing Home, and Healthcare Facility arrests.

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

# Utstein Survival Report

All Agencies

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21



# Utstein Survival Report

All Agencies

Incident State: PA | Date of Arrest: 01/01/21 - 12/31/21

