

CARES Survival Report

Incident State: MI | Date of Arrest: 01/01/13 - 12/31/21 | Non-Traumatic Etiology

	OVERALL N = 54716				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	54716	15352 (28.1)	13717 (25.1)	4505 (8.2)	3697 (6.8)
Location of Arrest					
Home/Residence	39263 (71.8)	10665 (27.2)	9560 (24.3)	2776 (7.1)	2255 (5.7)
Nursing Home	7656 (14.0)	1746 (22.8)	1168 (15.3)	262 (3.4)	138 (1.8)
Public Setting	7797 (14.2)	2941 (37.7)	2989 (38.3)	1467 (18.8)	1304 (16.7)
Arrest Witnessed Status					
Unwitnessed	28777 (52.6)	5494 (19.1)	4647 (16.1)	1076 (3.7)	822 (2.9)
Bystander witnessed	19984 (36.5)	7667 (38.4)	6805 (34.1)	2580 (12.9)	2161 (10.8)
911 Responder witnessed	5953 (10.9)	2190 (36.8)	2264 (38.0)	848 (14.2)	714 (12.0)
Bystander CPR*					
Bystander CPR	22061 (45.2)	6461 (29.3)	5515 (25.0)	2058 (9.3)	1710 (7.8)
No Bystander CPR	26699 (54.8)	6700 (25.1)	5937 (22.2)	1598 (6.0)	1273 (4.8)
Bystander CPR (excludes nursing home/healthcare facility events)	14609 (36.6)	4587 (31.4)	4181 (28.6)	1679 (11.5)	1458 (10.0)
No Bystander CPR (excludes nursing home/healthcare facility events)	25337 (63.4)	6343 (25.0)	5684 (22.4)	1530 (6.0)	1229 (4.9)
Initial Arrest Rhythm					
Shockable	9252 (16.9)	4127 (44.6)	4056 (43.8)	2295 (24.8)	2057 (22.2)
Non-shockable	45463 (83.1)	11225 (24.7)	9661 (21.3)	2210 (4.9)	1640 (3.6)
AED Use					
Bystander AED use*	4566 (9.4)	1356 (29.7)	1062 (23.3)	473 (10.4)	391 (8.6)
Bystander AED use* (excludes nursing home/healthcare facility events)	764 (1.9)	361 (47.3)	351 (45.9)	232 (30.4)	224 (29.3)
Trained provider (First Responder) AED use	13861 (25.3)	4066 (29.3)	3487 (25.2)	1210 (8.7)	1045 (7.5)
Utstein					
Witnessed and shockable	6381 (11.7)	3168 (49.6)	3122 (48.9)	1883 (29.5)	1709 (26.8)
Bystander witnessed and shockable	5342 (9.8)	2623 (49.1)	2595 (48.6)	1525 (28.5)	1374 (25.7)
Hypothermia					
Field hypothermia	453 (0.8)	263 (58.1)	203 (44.8)	63 (13.9)	51 (11.3)
In-hospital hypothermia/TTM (among admitted patients)	6405 (46.7)	--	--	1844 (28.8)	1372 (21.4)

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=17).

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

[†]CPC missing for 0 patients.

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	Age = <1 years N = 751				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	751	69 (9.2)	109 (14.5)	28 (3.7)	21 (2.8)
Location of Arrest					
Home/Residence	719 (95.7)	65 (9.0)	105 (14.6)	28 (3.9)	21 (2.9)
Nursing Home	4 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Public Setting	28 (3.7)	4 (14.3)	4 (14.3)	0 (0.0)	0 (0.0)
Arrest Witnessed Status					
Unwitnessed	616 (82.0)	37 (6.0)	68 (11.0)	13 (2.1)	9 (1.5)
Bystander witnessed	115 (15.3)	28 (24.3)	35 (30.4)	12 (10.4)	10 (8.7)
911 Responder witnessed	20 (2.7)	4 (20.0)	6 (30.0)	3 (15.0)	2 (10.0)
Bystander CPR*					
Bystander CPR	314 (43.0)	33 (10.5)	48 (15.3)	16 (5.1)	12 (3.8)
No Bystander CPR	417 (57.0)	32 (7.7)	55 (13.2)	9 (2.2)	7 (1.7)
Bystander CPR (excludes nursing home/healthcare facility events)	308 (42.7)	33 (10.7)	48 (15.6)	16 (5.2)	12 (3.9)
No Bystander CPR (excludes nursing home/healthcare facility events)	413 (57.3)	32 (7.7)	54 (13.1)	9 (2.2)	7 (1.7)
Initial Arrest Rhythm					
Shockable	24 (3.2)	1 (4.2)	1 (4.2)	0 (0.0)	0 (0.0)
Non-shockable	727 (96.8)	68 (9.4)	108 (14.9)	28 (3.9)	21 (2.9)
AED Use					
Bystander AED use*	3 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
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	137 (18.2)	9 (6.6)	18 (13.1)	1 (0.7)	0 (0.0)
Utstein					
Witnessed and shockable	12 (1.6)	1 (8.3)	1 (8.3)	0 (0.0)	0 (0.0)
Bystander witnessed and shockable	10 (1.3)	1 (10.0)	1 (10.0)	0 (0.0)	0 (0.0)
Hypothermia					
Field hypothermia	3 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
In-hospital hypothermia/TTM (among admitted patients)	12 (11.0)	--	--	6 (50.0)	5 (41.7)

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.

NOTE: Analysis excludes patients with missing hospital outcome (N=1).

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

[†]CPC missing for 0 patients.

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Incident State: MI | Date of Arrest: 01/01/13 - 12/31/21 | Non-Traumatic Etiology

	Age = 1 - 12 years N = 410				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	410	96 (23.4)	122 (29.8)	48 (11.7)	44 (10.7)
Location of Arrest					
Home/Residence	352 (85.9)	71 (20.2)	93 (26.4)	30 (8.5)	26 (7.4)
Nursing Home	0 (0.0)	0 (NaN)	0 (NaN)	0 (NaN)	0 (NaN)
Public Setting	58 (14.1)	25 (43.1)	29 (50.0)	18 (31.0)	18 (31.0)
Arrest Witnessed Status					
Unwitnessed	273 (66.6)	46 (16.8)	67 (24.5)	22 (8.1)	19 (7.0)
Bystander witnessed	114 (27.8)	45 (39.5)	45 (39.5)	22 (19.3)	22 (19.3)
911 Responder witnessed	23 (5.6)	5 (21.7)	10 (43.5)	4 (17.4)	3 (13.0)
Bystander CPR*					
Bystander CPR	185 (47.8)	55 (29.7)	64 (34.6)	31 (16.8)	30 (16.2)
No Bystander CPR	202 (52.2)	36 (17.8)	48 (23.8)	13 (6.4)	11 (5.4)
Bystander CPR (excludes nursing home/healthcare facility events)	180 (47.4)	55 (30.6)	64 (35.6)	31 (17.2)	30 (16.7)
No Bystander CPR (excludes nursing home/healthcare facility events)	200 (52.6)	35 (17.5)	47 (23.5)	13 (6.5)	11 (5.5)
Initial Arrest Rhythm					
Shockable	29 (7.1)	14 (48.3)	12 (41.4)	9 (31.0)	9 (31.0)
Non-shockable	381 (92.9)	82 (21.5)	110 (28.9)	39 (10.2)	35 (9.2)
AED Use					
Bystander AED use*	9 (2.3)	4 (44.4)	5 (55.6)	3 (33.3)	3 (33.3)
Bystander AED use* (excludes nursing home/healthcare facility events)	6 (1.6)	4 (66.7)	5 (83.3)	3 (50.0)	3 (50.0)
Trained provider (First Responder) AED use	102 (24.9)	26 (25.5)	27 (26.5)	9 (8.8)	8 (7.8)
Utstein					
Witnessed and shockable	19 (4.6)	14 (73.7)	11 (57.9)	8 (42.1)	8 (42.1)
Bystander witnessed and shockable	17 (4.1)	14 (82.4)	9 (52.9)	7 (41.2)	7 (41.2)
Hypothermia					
Field hypothermia	5 (1.2)	3 (60.0)	4 (80.0)	2 (40.0)	2 (40.0)
In-hospital hypothermia/TTM (among admitted patients)	21 (17.2)	--	--	6 (28.6)	6 (28.6)

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.

[†]CPC missing for 0 patients.

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	Age = 13 - 18 years N = 281				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	281	91 (32.4)	110 (39.1)	43 (15.3)	34 (12.1)
Location of Arrest					
Home/Residence	223 (79.4)	67 (30.0)	72 (32.3)	21 (9.4)	15 (6.7)
Nursing Home	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Public Setting	57 (20.3)	24 (42.1)	38 (66.7)	22 (38.6)	19 (33.3)
Arrest Witnessed Status					
Unwitnessed	167 (59.4)	38 (22.8)	45 (26.9)	13 (7.8)	9 (5.4)
Bystander witnessed	98 (34.9)	50 (51.0)	58 (59.2)	28 (28.6)	25 (25.5)
911 Responder witnessed	16 (5.7)	3 (18.8)	7 (43.8)	2 (12.5)	0 (0.0)
Bystander CPR*					
Bystander CPR	121 (45.7)	50 (41.3)	59 (48.8)	28 (23.1)	26 (21.5)
No Bystander CPR	144 (54.3)	38 (26.4)	44 (30.6)	13 (9.0)	8 (5.6)
Bystander CPR (excludes nursing home/healthcare facility events)	118 (45.0)	50 (42.4)	58 (49.2)	28 (23.7)	26 (22.0)
No Bystander CPR (excludes nursing home/healthcare facility events)	144 (55.0)	38 (26.4)	44 (30.6)	13 (9.0)	8 (5.6)
Initial Arrest Rhythm					
Shockable	47 (16.7)	23 (48.9)	33 (70.2)	25 (53.2)	22 (46.8)
Non-shockable	234 (83.3)	68 (29.1)	77 (32.9)	18 (7.7)	12 (5.1)
AED Use					
Bystander AED use*	14 (5.3)	7 (50.0)	11 (78.6)	6 (42.9)	6 (42.9)
Bystander AED use* (excludes nursing home/healthcare facility events)	12 (4.6)	7 (58.3)	10 (83.3)	6 (50.0)	6 (50.0)
Trained provider (First Responder) AED use	83 (29.5)	28 (33.7)	30 (36.1)	9 (10.8)	8 (9.6)
Utstein					
Witnessed and shockable	35 (12.5)	17 (48.6)	25 (71.4)	19 (54.3)	17 (48.6)
Bystander witnessed and shockable	30 (10.7)	17 (56.7)	23 (76.7)	18 (60.0)	17 (56.7)
Hypothermia					
Field hypothermia	3 (1.1)	1 (33.3)	1 (33.3)	0 (0.0)	0 (0.0)
In-hospital hypothermia/TTM (among admitted patients)	30 (27.3)	--	--	15 (50.0)	11 (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.

NOTE: Analysis excludes patients with missing hospital outcome (N=0).

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

[†]CPC missing for 0 patients.

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Incident State: MI | Date of Arrest: 01/01/13 - 12/31/21 | Non-Traumatic Etiology

	Age = >18 years N = 53214				
	Total N (%)	Sustained ROSC (%)	Survival to hospital admission (%)	Survival to hospital discharge (%)	Survival to discharge with CPC 1 or 2 [†] (%)
Total	53214	15084 (28.3)	13363 (25.1)	4383 (8.2)	3596 (6.8)
Location of Arrest					
Home/Residence	37921 (71.3)	10452 (27.6)	9279 (24.5)	2696 (7.1)	2193 (5.8)
Nursing Home	7648 (14.4)	1746 (22.8)	1168 (15.3)	262 (3.4)	138 (1.8)
Public Setting	7645 (14.4)	2886 (37.8)	2916 (38.1)	1425 (18.6)	1265 (16.5)
Arrest Witnessed Status					
Unwitnessed	27698 (52.1)	5370 (19.4)	4463 (16.1)	1028 (3.7)	785 (2.8)
Bystander witnessed	19632 (36.9)	7538 (38.4)	6661 (33.9)	2516 (12.8)	2103 (10.7)
911 Responder witnessed	5882 (11.1)	2175 (37.0)	2238 (38.0)	838 (14.2)	708 (12.0)
Bystander CPR*					
Bystander CPR	21425 (45.3)	6321 (29.5)	5341 (24.9)	1982 (9.3)	1641 (7.7)
No Bystander CPR	25904 (54.7)	6587 (25.4)	5783 (22.3)	1562 (6.0)	1247 (4.8)
Bystander CPR (excludes nursing home/healthcare facility events)	13991 (36.3)	4448 (31.8)	4009 (28.7)	1604 (11.5)	1390 (9.9)
No Bystander CPR (excludes nursing home/healthcare facility events)	24548 (63.7)	6231 (25.4)	5532 (22.5)	1494 (6.1)	1203 (4.9)
Initial Arrest Rhythm					
Shockable	9150 (17.2)	4088 (44.7)	4009 (43.8)	2260 (24.7)	2026 (22.1)
Non-shockable	44063 (82.8)	10996 (25.0)	9354 (21.2)	2123 (4.8)	1570 (3.6)
AED Use					
Bystander AED use*	4528 (9.6)	1345 (29.7)	1046 (23.1)	464 (10.2)	382 (8.4)
Bystander AED use* (excludes nursing home/healthcare facility events)	746 (1.9)	350 (46.9)	336 (45.0)	223 (29.9)	215 (28.8)
Trained provider (First Responder) AED use	13537 (25.4)	4003 (29.6)	3412 (25.2)	1191 (8.8)	1029 (7.6)
Utstein					
Witnessed and shockable	6313 (11.9)	3135 (49.7)	3084 (48.9)	1855 (29.4)	1684 (26.7)
Bystander witnessed and shockable	5283 (9.9)	2590 (49.0)	2561 (48.5)	1499 (28.4)	1350 (25.6)
Hypothermia					
Field hypothermia	442 (0.8)	259 (58.6)	198 (44.8)	61 (13.8)	49 (11.1)
In-hospital hypothermia/TTM (among admitted patients)	6338 (47.4)	--	--	1816 (28.7)	1350 (21.3)

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.

NOTE: Analysis excludes patients with missing hospital outcome (N=14).

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

[†]CPC missing for 0 patients.