



Key statistics from the National Cardiac Arrest Audit *2015/16*

Data collection scope (NCAA Version 1.3)

NCAA data are collected for all individuals (excluding neonates) receiving chest compression(s) and/or defibrillation and attended by the hospital-based resuscitation team (or equivalent) in response to a 2222 call.

Available data

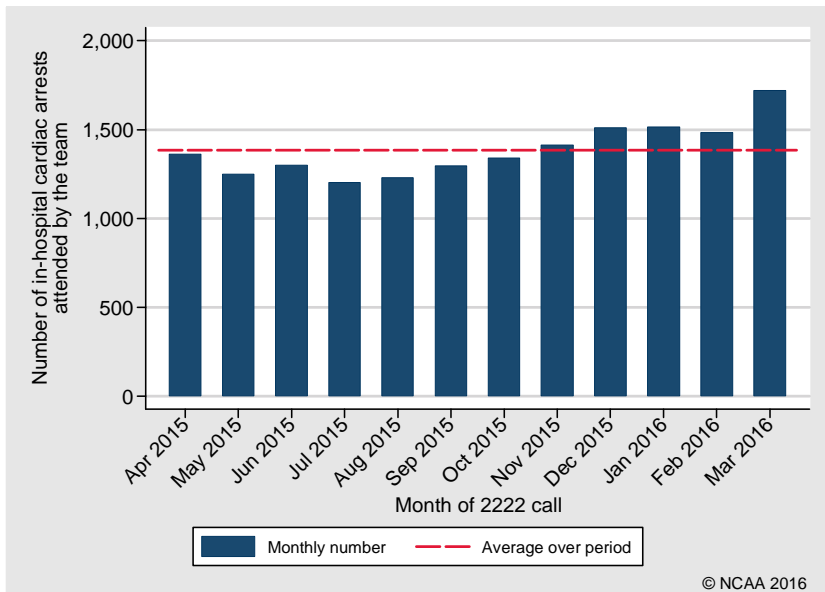
This report is based on data for in-hospital cardiac arrests in NHS acute hospitals. The following team visits were therefore excluded:

- Team visits taking place in specialist or non-acute hospitals
- Team visits taking place in paediatric hospitals
- Team visits (meeting the scope of NCAA) in response to pre-hospital cardiac arrests

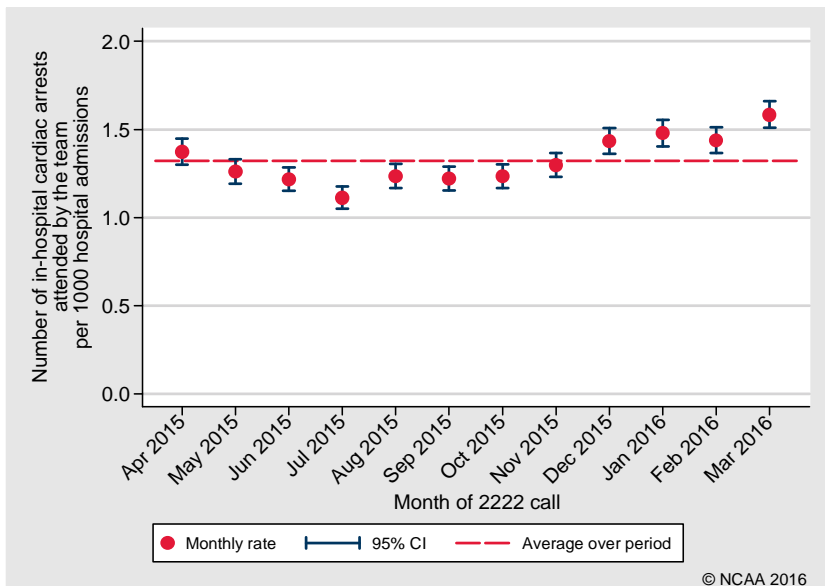
Year	Number of hospitals participating in NCAA	Total number of admissions to hospital	Total number of reported in-hospital cardiac arrests	Total number of individuals
April 2015 - March 2016	188	12,564,141	16,617	16,025
April 2014 - March 2015	173	11,305,676	16,151	15,567
April 2013 - March 2014	160	9,717,688	14,181	13,678
April 2012 - March 2013	136	8,650,406	13,890	13,367
April 2011 - March 2012	113	6,141,375	9,822	9,467

Incidence of in-hospital cardiac arrests attended by the team

Number of in-hospital cardiac arrests attended by the team

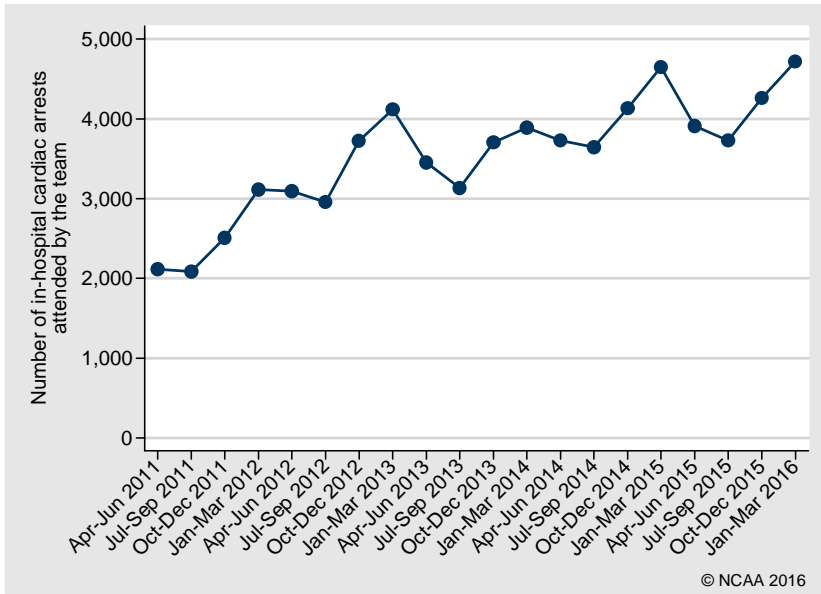


Rate of in-hospital cardiac arrests per 1000 hospital admissions

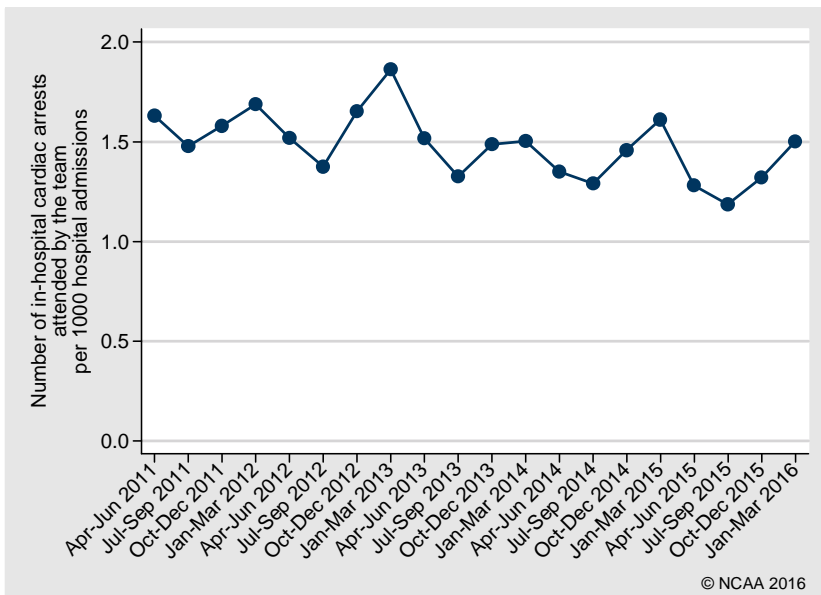


Trends in incidence of in-hospital cardiac arrests attended by the team

Number of in-hospital cardiac arrests attended by the team



Rate of in-hospital cardiac arrests per 1000 hospital admissions



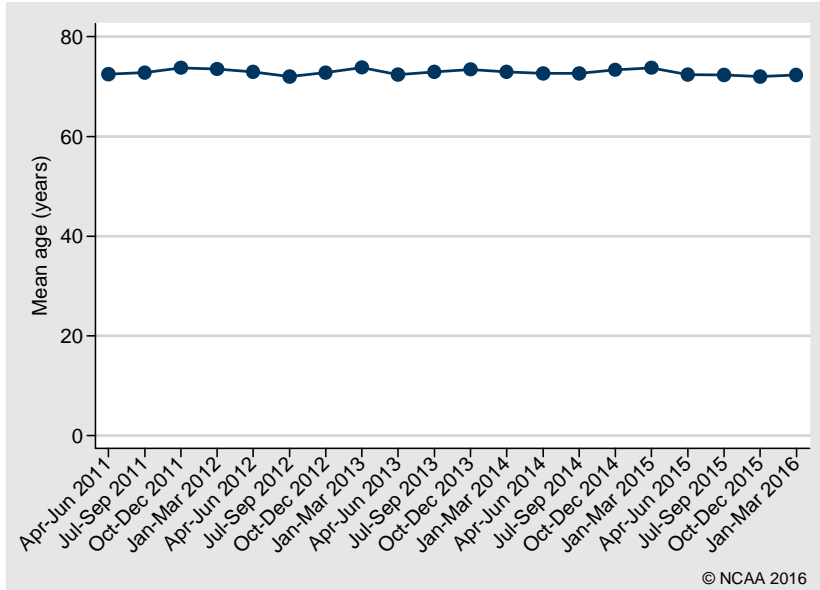
Patient characteristics

Age (years), n (%)	
0-15	162 (1.0)
16-64	3,912 (23.5)
65-74	3,614 (21.7)
75-84	5,260 (31.7)
85+	3,634 (21.9)
Missing	35 (0.2)
Mean (SD)	72.3 (16.1)
Median (IQR)	76 (65, 84)
Sex, n (%)	
Female	6,781 (40.8)
Male	9,801 (59.0)
Missing	35 (0.2)
Reason for admission to/attendance at/visit to your hospital, n (%)	
Patient - trauma	451 (2.7)
Patient - medical	13,821 (83.2)
Patient - elective/scheduled surgery	833 (5.0)
Patient - emergency/urgent surgery	1,192 (7.2)
Patient - obstetric	31 (0.2)
Outpatient	207 (1.2)
Staff	13 (0.1)
Visitor	36 (0.2)
Missing	33 (0.2)

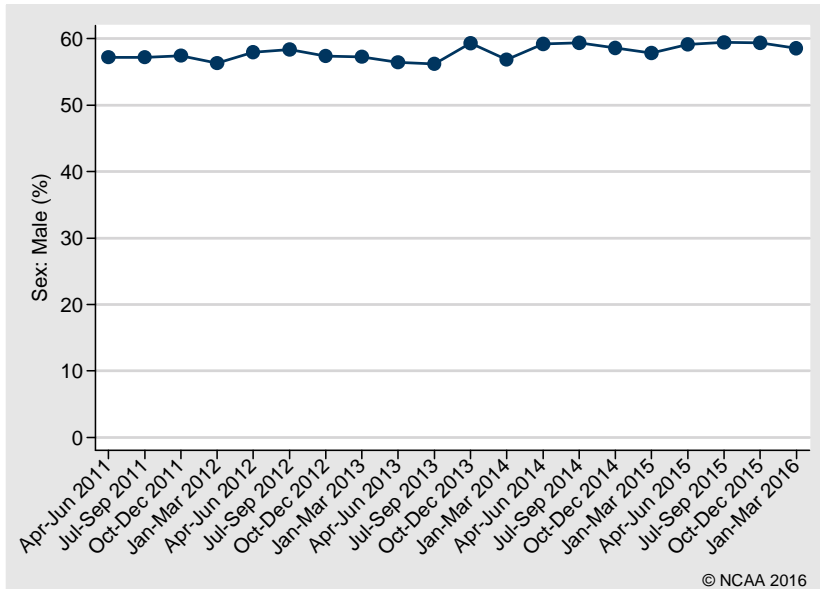
IQR, interquartile range; SD, standard deviation.

Trends in patient characteristics

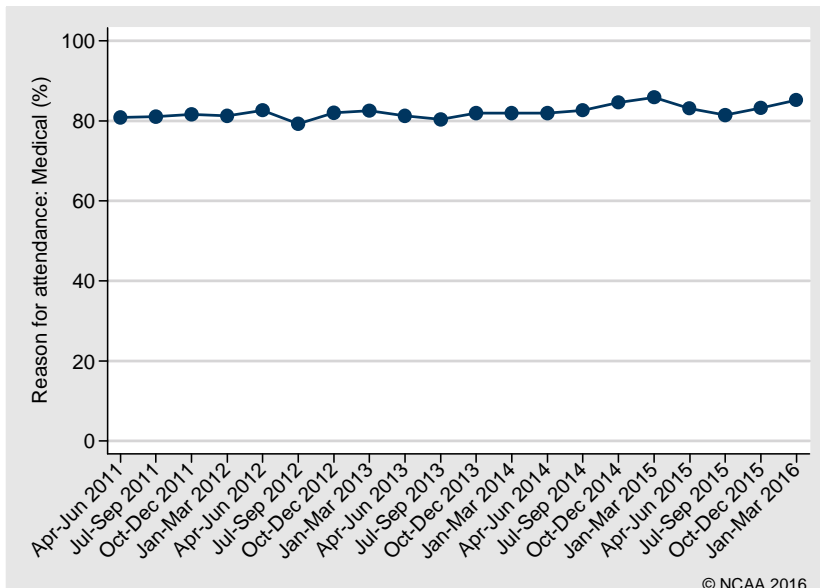
Mean age



Sex: Male



Reason for attendance: Medical



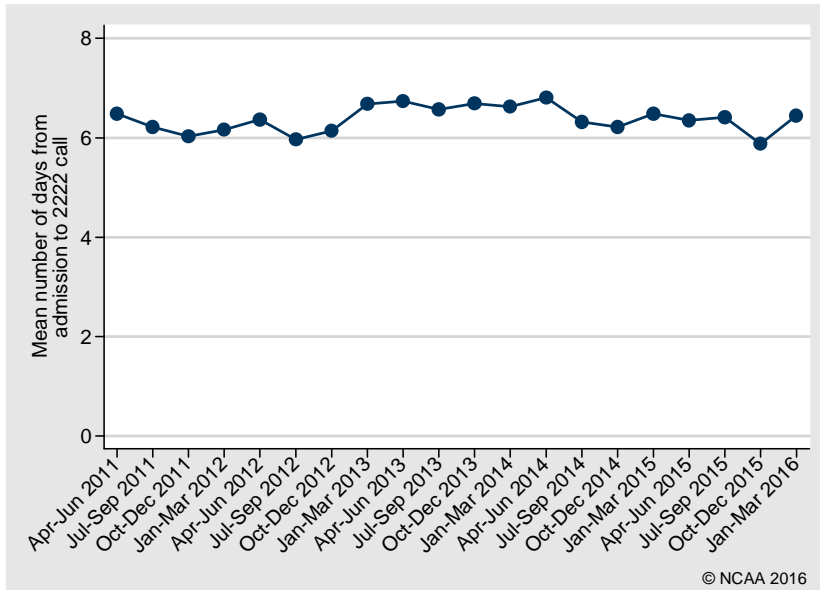
Team visit characteristics

Number of days from admission to 2222 call, n (%)	
0	4,498 (27.1)
1	2,911 (17.5)
2-7	5,304 (31.9)
8-30	3,237 (19.5)
>30	631 (3.8)
Missing	36 (0.2)
Mean (SD)	6.3 (12.8)
Median (IQR)	2 (0, 7)
Location of arrest, n (%)	
Emergency department	1,674 (10.1)
Emergency admissions unit	1,212 (7.3)
Theatre & recovery	235 (1.4)
Imaging department	234 (1.4)
Cardiac catheter laboratory	534 (3.2)
Specialist treatment area	240 (1.4)
ICU or ICU/HDU	889 (5.3)
HDU	265 (1.6)
PICU	23 (0.1)
PHDU	11 (0.1)
Coronary care unit	1,647 (9.9)
Other intermediate care area	19 (0.1)
Obstetrics area	20 (0.1)
Ward	9,389 (56.5)
Other internal location	19 (0.1)
Clinic	71 (0.4)
Non-clinical area	107 (0.6)
Missing	28 (0.2)
Status at team arrival, n (%)	
Dead - resuscitation stopped	161 (1.0)
Resuscitation ongoing	13,873 (83.5)
ROSC achieved before team arrival	1,577 (9.5)
Deteriorating (not yet arrested)	942 (5.7)
Missing	64 (0.4)
Presenting/first documented rhythm, n (%)	
Shockable - VF	1,771 (10.7)
Shockable - VT	796 (4.8)
Shockable - unknown rhythm	94 (0.6)
Non-shockable - asystole	3,656 (22.0)
Non-shockable - PEA	8,677 (52.2)
Non-shockable - bradycardia	97 (0.6)
Non-shockable - unknown rhythm	324 (1.9)
Never determined	648 (3.9)
Unknown	554 (3.3)

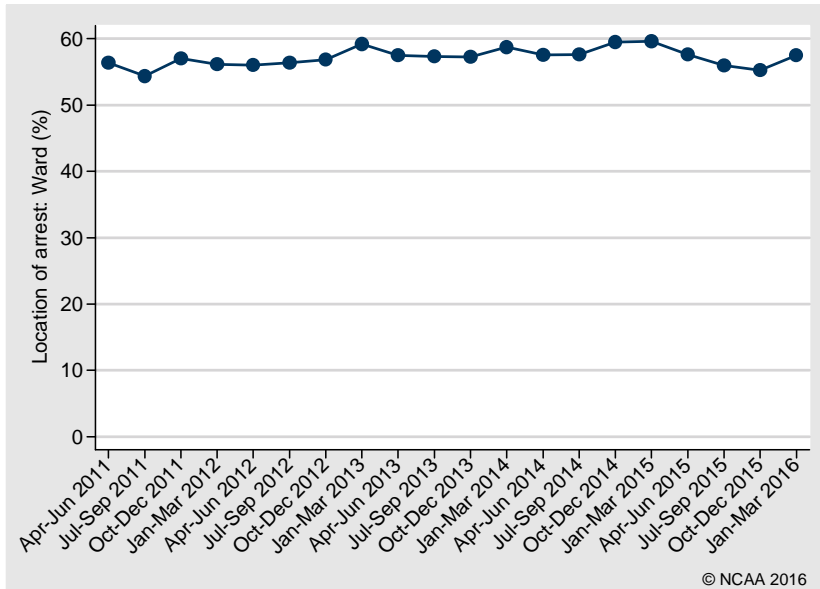
HDU, high dependency unit; ICU, intensive care unit; IQR, interquartile range; PEA, pulseless electrical activity; PHDU, paediatric high dependency unit; PICU, paediatric intensive care unit; ROSC, return of spontaneous circulation; SD, standard deviation; VF, ventricular fibrillation; VT, ventricular tachycardia.

Trends in team visit characteristics

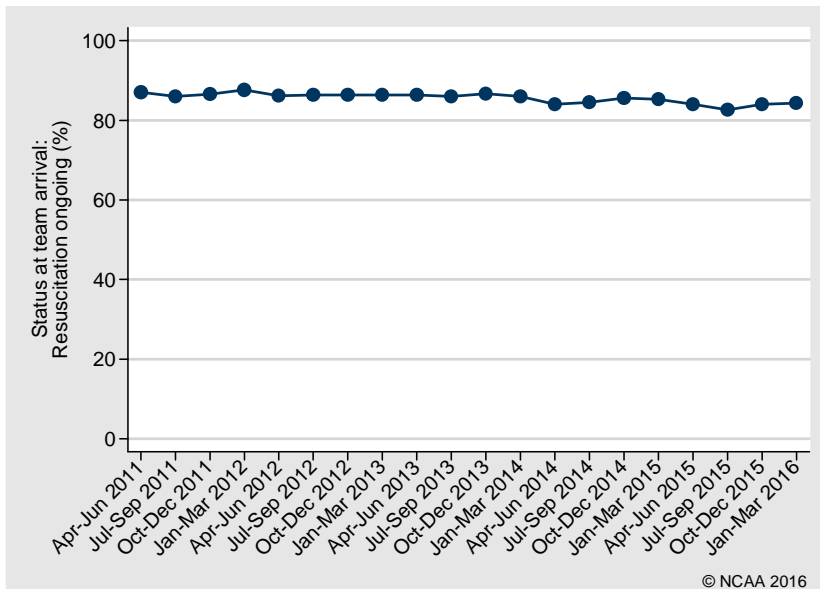
Mean number of days from admission to 2222 call



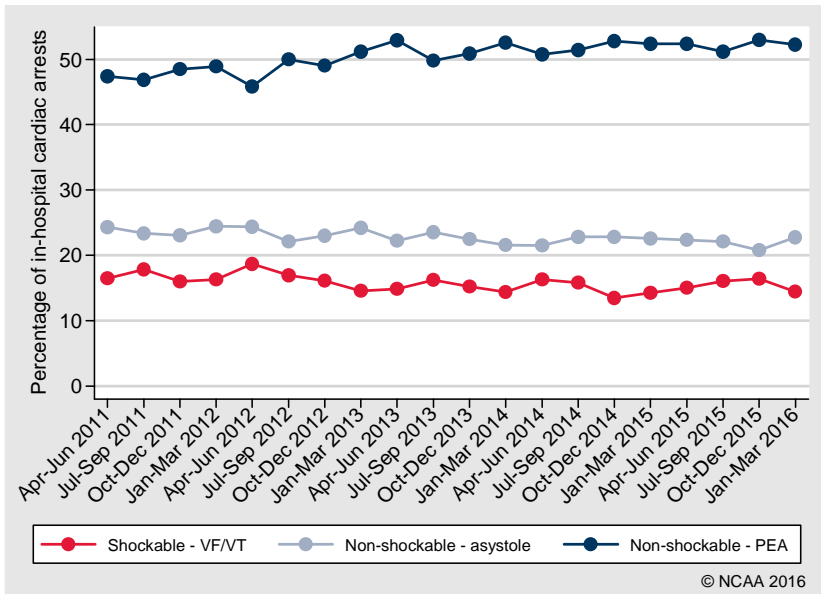
Location of arrest: Ward



Status at team arrival: Resuscitation ongoing



Presenting/first documented rhythm

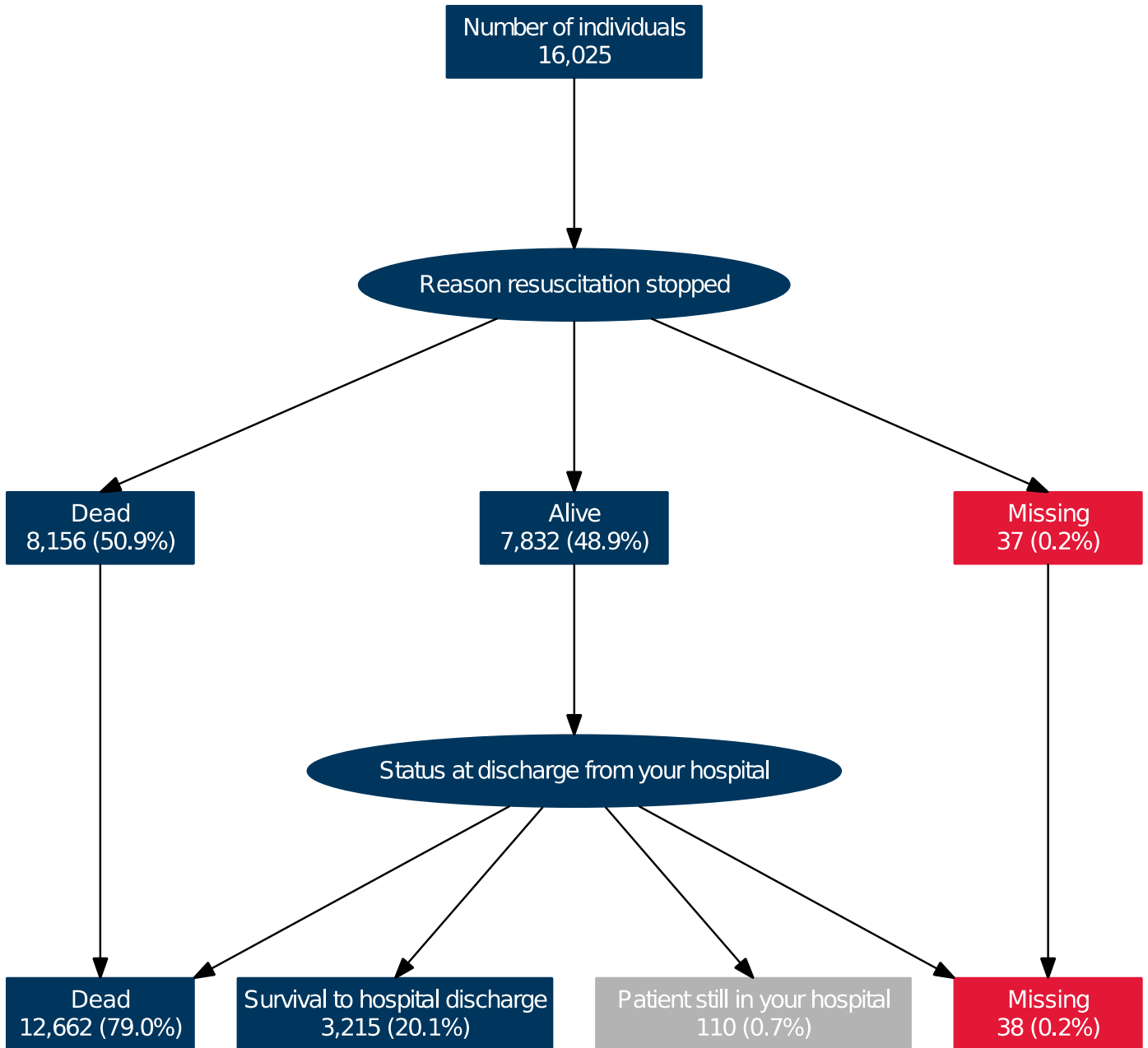


Outcomes

Reason resuscitation stopped at end of team visit, n (%)	
Alive - ROSC > 20 minutes	8,256 (49.7)
Dead - ROSC < 20 minutes	1,087 (6.5)
Dead - no ROSC	5,805 (34.9)
Dead - DNACPR	356 (2.1)
Dead - futility	1,076 (6.5)
Missing	37 (0.2)
Post-arrest location, n (% of ROSC > 20 minutes)	
Emergency admissions unit	234 (2.8)
ICU or ICU/HDU	2,884 (34.9)
HDU	193 (2.3)
PICU	32 (0.4)
PHDU	7 (0.1)
CCU	1,596 (19.3)
Other intermediate care area	14 (0.2)
Obstetrics area	7 (0.1)
Ward	1,857 (22.5)
Other internal location	7 (0.1)
Mortuary	1,112 (13.5)
Other hospital	285 (3.5)
Not in hospital	27 (0.3)
Missing	1 (0.0)
CPC at hospital discharge, n (% of adult survivors)	
1	2,681 (83.9)
2	296 (9.3)
3	92 (2.9)
4	12 (0.4)
Missing	116 (3.6)

CPC, cerebral performance category; DNACPR, do not attempt cardiopulmonary resuscitation; HDU, high dependency unit; ICU, intensive care unit; PHDU, paediatric high dependency unit; PICU, paediatric intensive care unit; ROSC, return of spontaneous circulation.

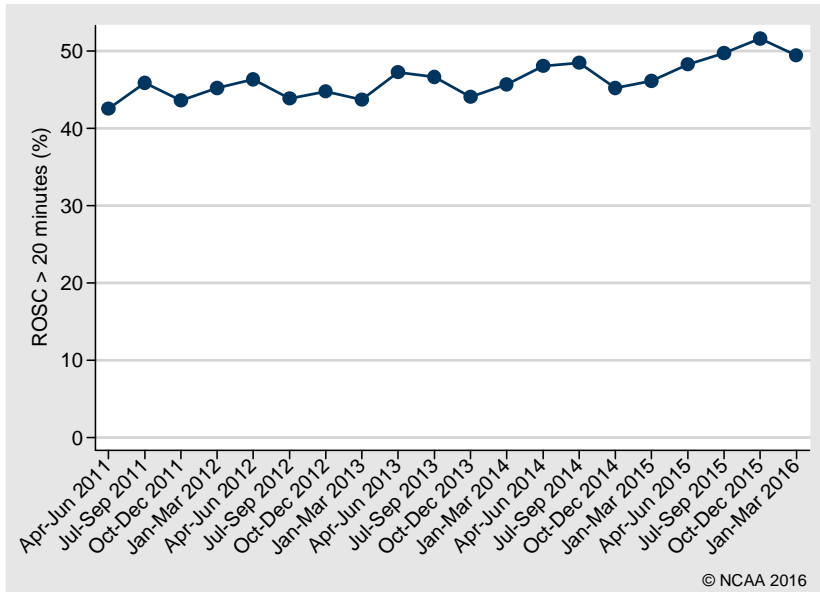
Outcome flow



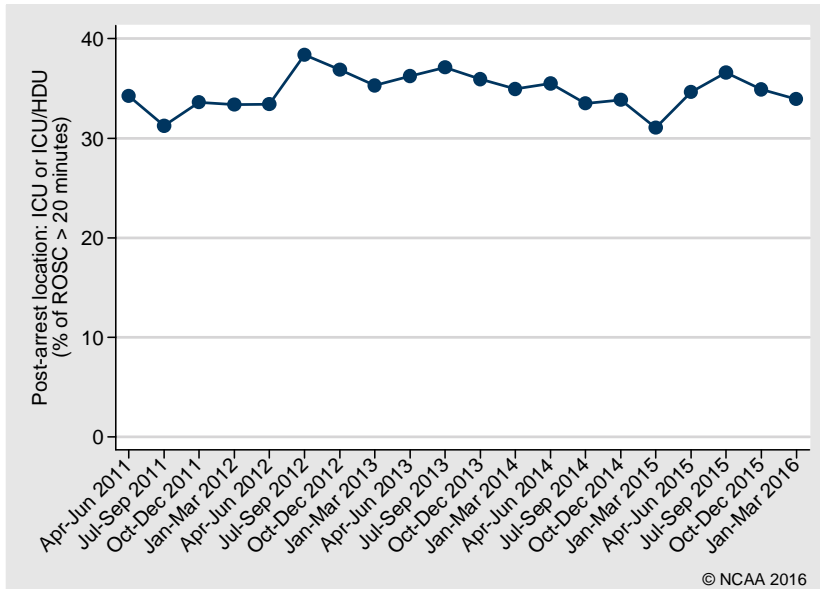
All percentages are reported as the percentage of all individuals (N=16,025).

Trends in outcomes

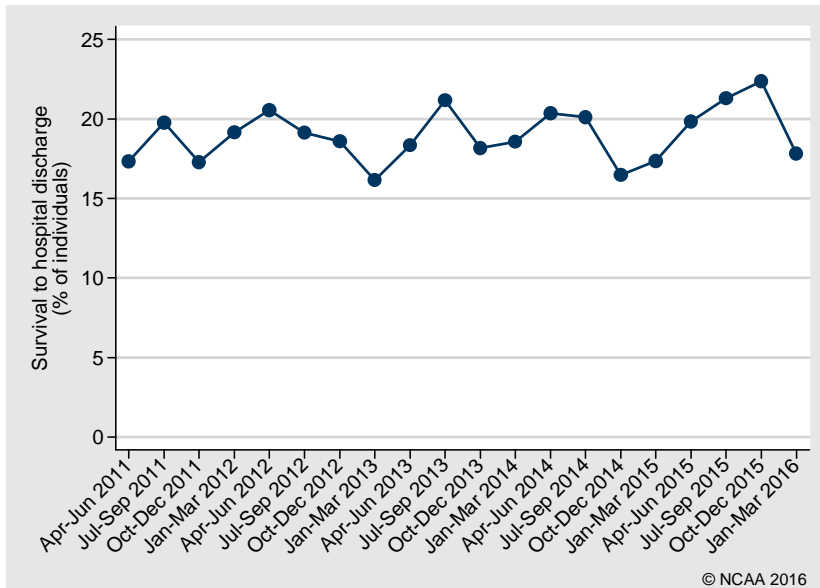
Reason resuscitation stopped: ROSC > 20 minutes



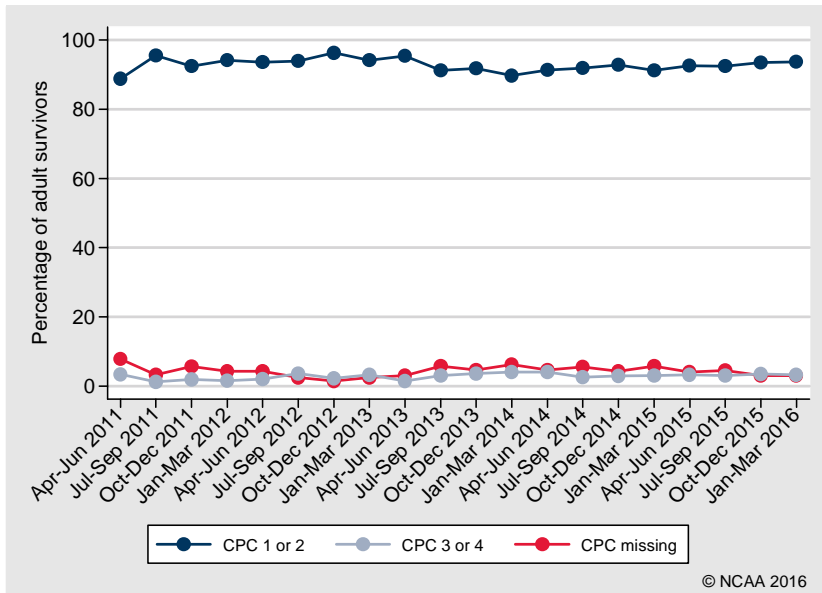
Post-arrest location: ICU or ICU/HDU



Survival to hospital discharge



CPC at hospital discharge (adult survivors)



Outcomes by patient subgroups

ROSC > 20 minutes

Subgroup	Number of in-hospital cardiac arrests*	Number with ROSC > 20 min	Percentage (95% confidence interval)
Overall	16,580	8,256	49.8 (49.0, 50.6)
By presenting rhythm:			
Shockable - VF/VT	2,566	2,006	78.2 (76.5, 79.7)
Non-shockable - asystole	3,655	1,132	31.0 (29.5, 32.5)
Non-shockable - PEA	8,676	4,022	46.4 (45.3, 47.4)
By age group (years):			
0-15	162	100	61.7 (54.1, 68.9)
16-64	3,911	2,314	59.2 (57.6, 60.7)
65-74	3,612	1,935	53.6 (51.9, 55.2)
75-84	5,258	2,469	47.0 (45.6, 48.3)
85+	3,633	1,437	39.6 (38.0, 41.2)

PEA, pulseless electrical activity; ROSC, return of spontaneous circulation; VF, ventricular fibrillation; VT, ventricular tachycardia.

* Excluding arrests missing reason resuscitation stopped (N=37).

Survival to hospital discharge

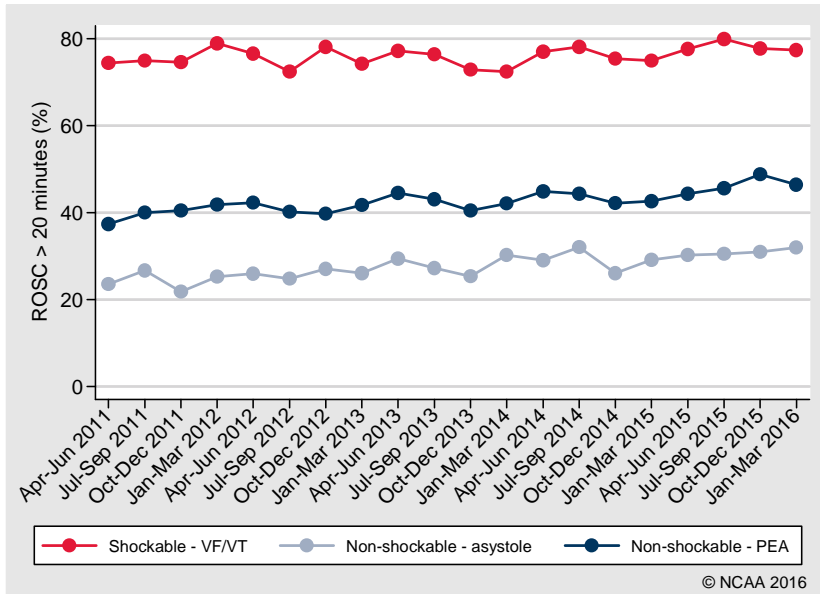
Subgroup	Number of individuals*	Number of hospital survivors	Percentage (95% confidence interval)
Overall	15,877	3,215	20.2 (19.6, 20.9)
By presenting rhythm:			
Shockable - VF/VT	2,333	1,176	50.4 (48.4, 52.4)
Non-shockable - asystole	3,543	309	8.7 (7.8, 9.7)
Non-shockable - PEA	8,374	1,133	13.5 (12.8, 14.3)
By age group (years):			
0-15	153	78	51.0 (43.1, 58.8)
16-64	3,689	1,125	30.5 (29.0, 32.0)
65-74	3,437	768	22.3 (21.0, 23.8)
75-84	5,046	815	16.2 (15.2, 17.2)
85+	3,549	429	12.1 (11.1, 13.2)

PEA, pulseless electrical activity; VF, ventricular fibrillation; VT, ventricular tachycardia.

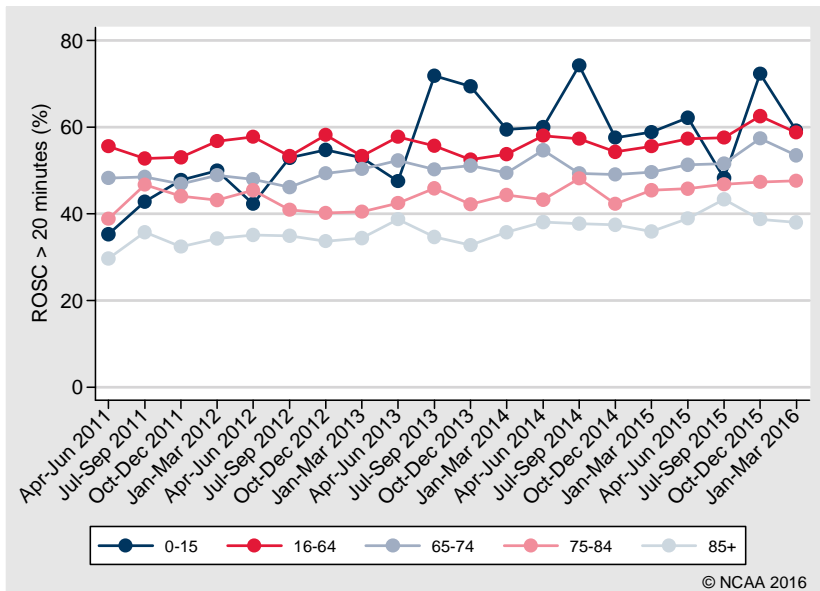
* Excluding individuals still in hospital (N=110) or missing hospital survival (N=38).

Trends in outcomes by patient subgroups

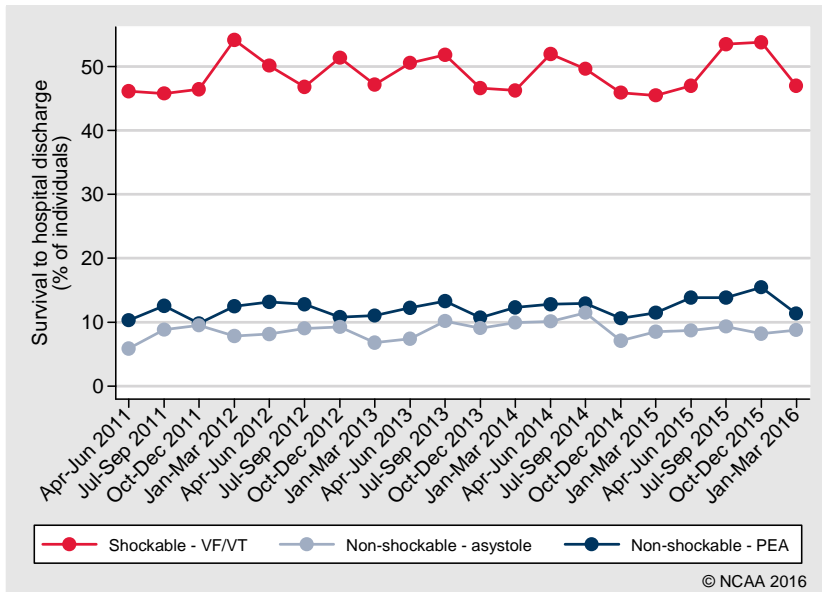
ROSC > 20 minutes by presenting/first documented rhythm



ROSC > 20 minutes by age group



Survival to hospital discharge by presenting/first documented rhythm



Survival to hospital discharge by age group

