Lincoln EMS

Cardiac Arrest Statistics

2005 Thru 2009

Data Compiled by:

EMS, Inc.

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This report is provided to you by EMS, Inc.

EMS, Inc. was established in 1994 to provide independent medical oversight of the Lincoln EMS system.

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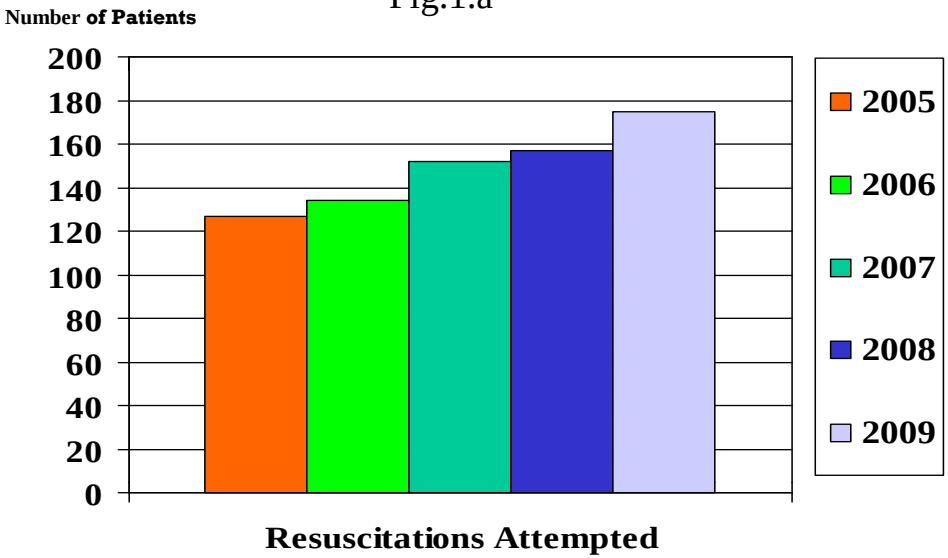
1.a: Resuscitations Attempted

Year	Total Resuscitations Attempted
2005	127
2006	134
2007	152
2008	157*
2009	175

Definition: Number of patients experiencing cardiac arrest. Of these 175 patients, ten originated as county calls.

Fig.1.a



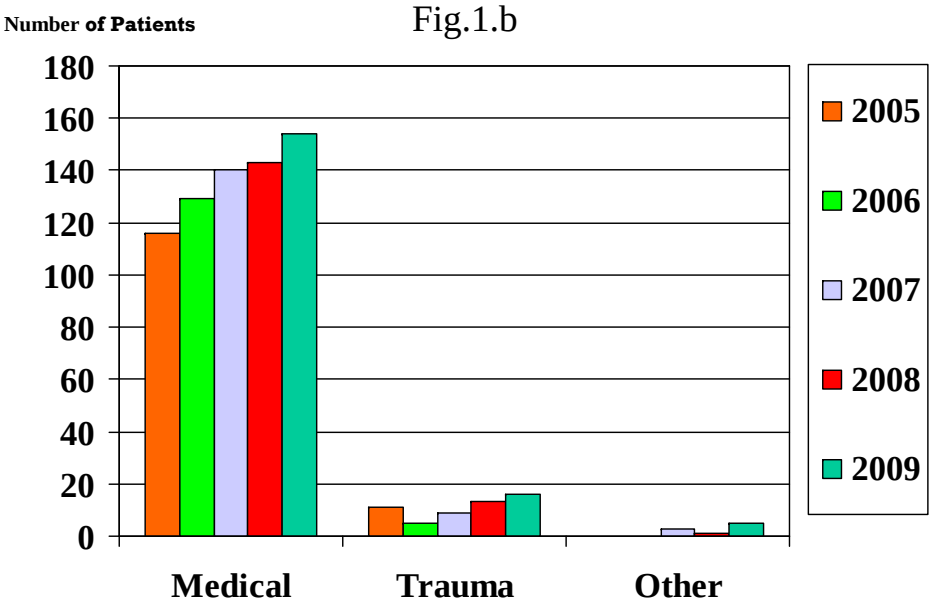
1.b: Cardiac Arrest Origin

Year	Medical	Trauma	Other*
2005	116	11	0
2006	129	5	0
2007	140	9	3
2008	143	13	1
2009	154	16	5

Definition: Total number of cardiac arrests resulting from a presumed classifiable cause.

*Other includes calls for which the main catalyst for the cause of death was not determined.

Fig.1.b

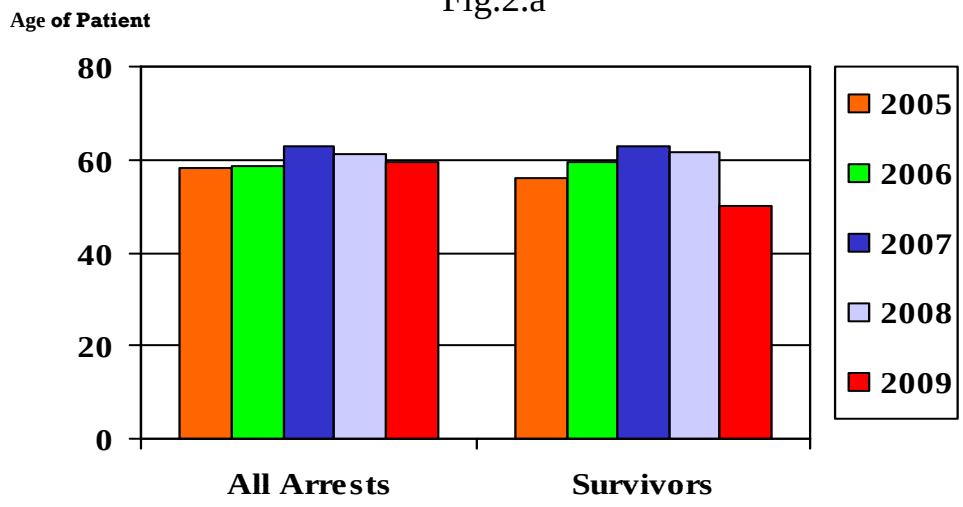


2.a: Average Age of Cardiac Arrests/Survivors

Year	All Arrests	Survivors
2005	58.0	56.1
2006	58.8	59.3
2007	62.7	62.9
2008	61.3	61.5
2009	59.6	50.1

Definition: Average age of all cardiac arrest patients, and average age of cardiac arrest survivors.

Fig.2.a

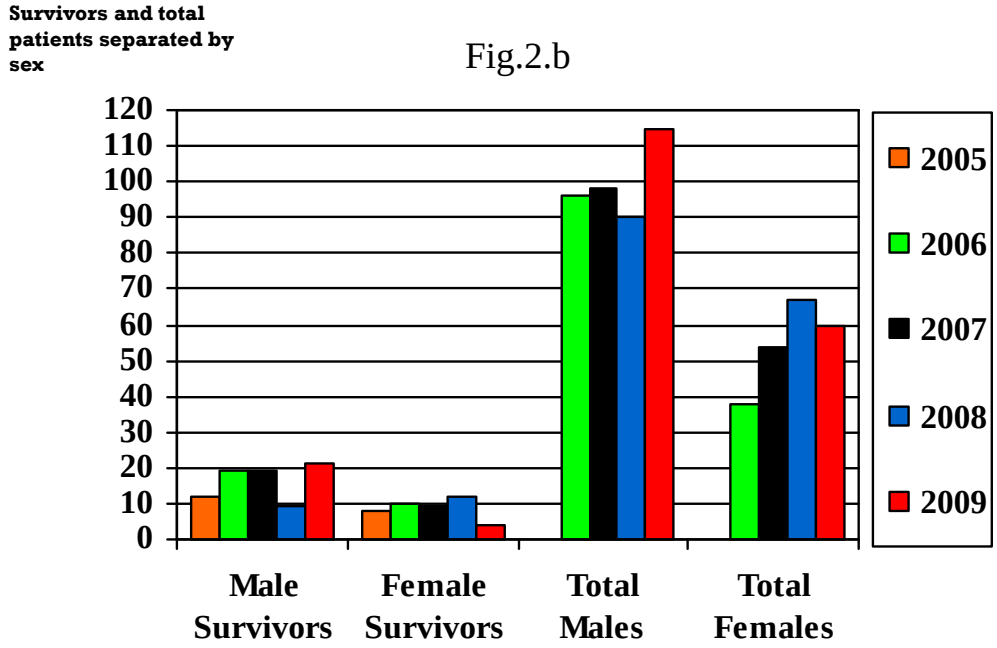


2.b: Cardiac Arrest Survivors and Annual Total by Sex

	Survivors		Annual total by sex	
	Male	Female	Male	Female
2005	12	8		
2006	19	10	96	38
2007	19	9	98	54
2008	9	12	90	67
2009	21	4	115	60

Definition: Total number of cardiac arrest survivors by sex. For the year 2006-2009, total number of patients separated by sex was provided.

Fig.2.b



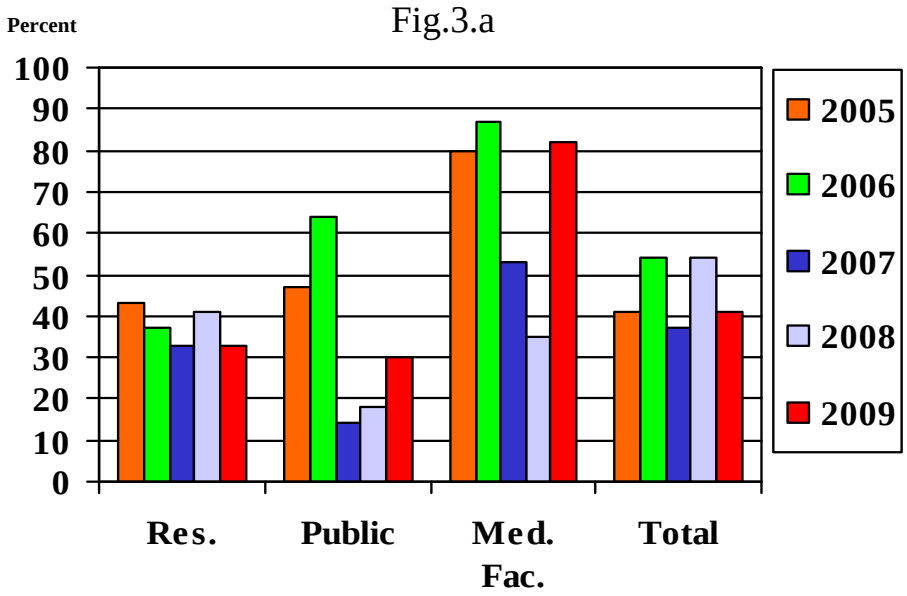
3.a: Percentage of Bystander CPR by Location of Arrest

Year	Residence	Public Place	Medical Facility*	Total
2005	43%	47%	80%	41%
2006	37%	64%	87%	54%
2007	33%	14%	53%	37%
2008	41%	18%	35%	54%
2009	33%	30%	82%	41%

Definition: Percentage of patients receiving bystander CPR, based upon the location of arrest.

*Medical Facility includes nursing homes, physician offices, and hospitals without emergency rooms.

Fig.3.a



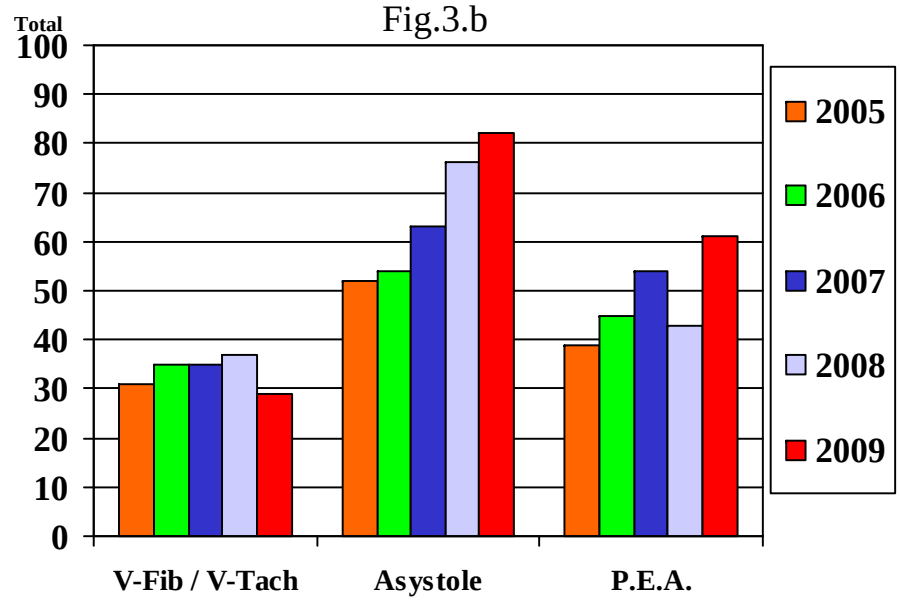
3.b: Initial Cardiac Arrest ECG Rhythm

Year	V-Fib / V-Tach	Asystole	P.E.A.	Total
2005	36	52	39	127
2006	35	54	45	134
2007	35	63	54	152
2008	37	76	43	156*
2009	29	82	61	172*

Definition: Initial cardiac rhythm as described by EMS. "V-Fib / V-Tach" is ventricular fibrillation or ventricular tachycardia. Asystole is "flat-line." "P.E.A." is Pulseless Electrical Activity; or an electrical tracing of a heart rhythm that typically produces a pulse but in this event is not.

*** Three patients had an undocumented initial rhythm leading to 3 patients less accounted for.**

Fig.3.b



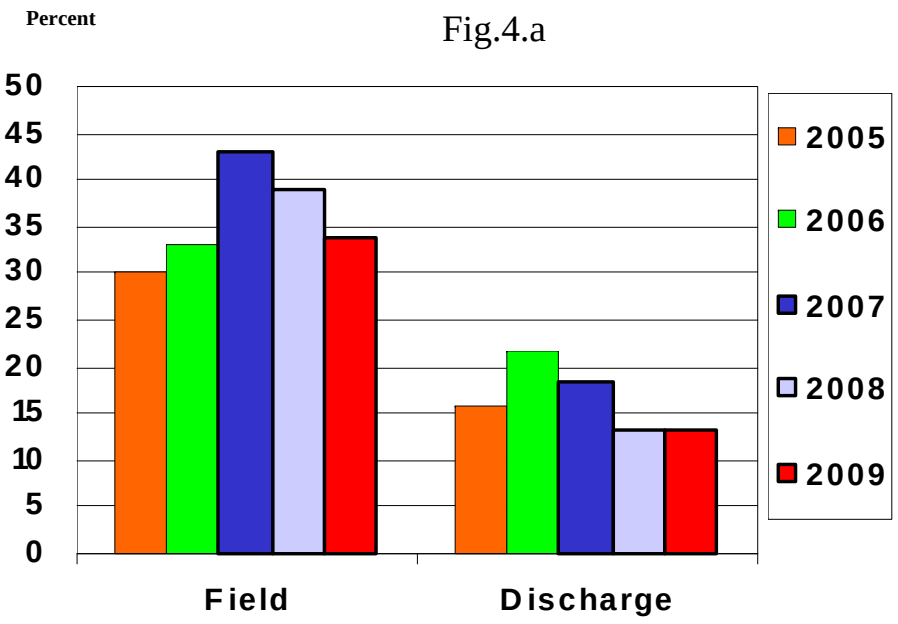
4.a: Return of Spontaneous Circulation

Year	In Field	Discharged Alive*
2005	30%	15.7%
2006	33%	21.6%
2007	43%	18.4%
2008	39%	13.4%
2009	34%	13.1%

Definition: The percentage of patients who had a return of a spontaneous circulation in the pre-hospital setting.

*Includes patients that experience a cardiac arrest event and are revived and then discharged alive from the hospital.

Fig.4.a



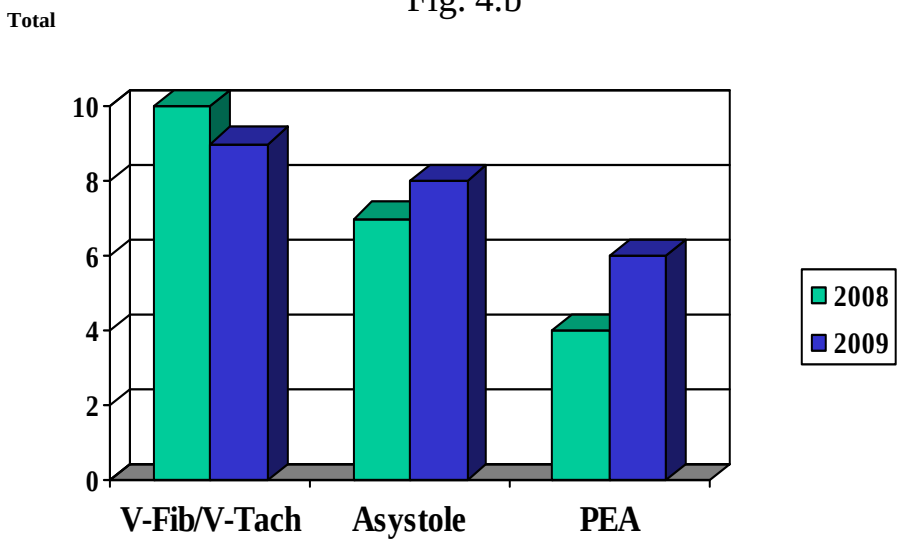
4.b: Survivors by Initial Rhythm

Year	V-Fib/V-Tach	Asystole	PEA
2008	10*	7	4
2009	9	8	6

Definition: Initial cardiac rhythm as described by EMS. "V-Fib / V-Tach" is ventricular fibrillation or ventricular tachycardia. Asystole is "flat-line." "P.E.A." is Pulseless Electrical Activity; or an electrical tracing of a heart rhythm that typically produces a pulse but in this event is not. **Two survivors' initial rhythms were not documented.**

31% of all patients who presented in V-Fib/V-Tach were resuscitated and discharged from the hospital.

Fig. 4.b



Automated External Defibrillators and CPR in the Lincoln-Lancaster Community

- During the year 2009, there were 25 survivors of cardiac arrest. Sixty percent of the survivors were witnessed going into cardiac arrest and 44% of the survivors received CPR prior to EMS arrival.

- The data in this report supports the benefit and importance of community training for the recognition of cardiac arrest, public AED use, and CPR.

- AEDs may be registered on-line at the following Lincoln Fire & Rescue website: http://www.lincoln.ne.gov/city/fire/aed.htm