

Lincoln EMS

Cardiac Arrest Statistics

2000 Thru 2005



Data Compiled by:
EMS, Inc.
5625 O Street, Suite 3
Lincoln, NE 68510
402-483-4800

EMS, Inc. is providing this report on Cardiac Arrest Statistics 2000-2005

EMS, Inc. was established in 1994 to provide independent medical oversight of pre-hospital emergency care for Lincoln citizens.

EMS, Inc. Medical Director – Terry Rounsborg, MD

EMS, Inc. Quality Improvement Director – Todd Gilkison, NREMT-P

EMS, Inc. Board of Directors:

Dale Michels, MD	Chair
Ameeta Martin, MD	Vice Chair
Randy Boldt	Treasurer
Matt Maude	Secretary
Russ Bayer	
John Hansen, MD	

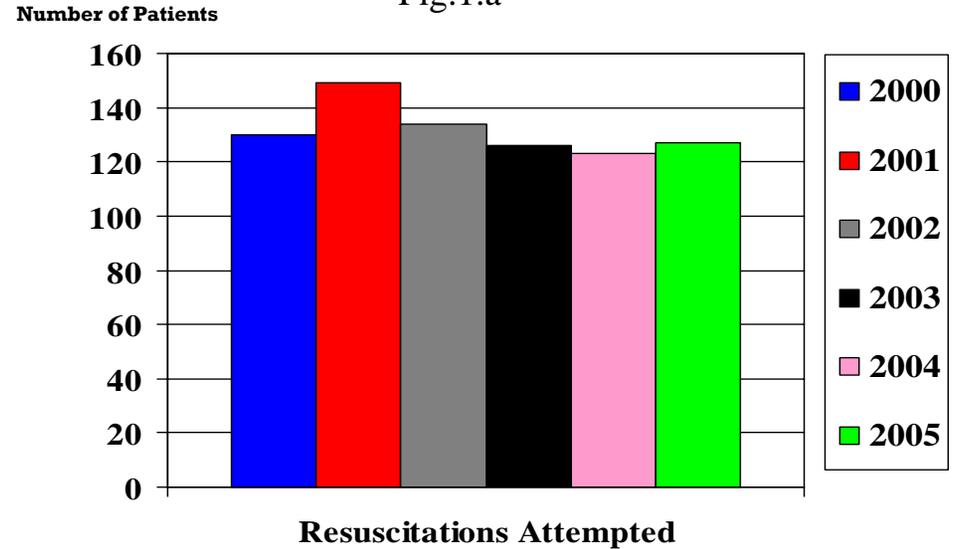
Total Cardiac Arrests

1.a: Resuscitations Attempted

Year
2000 = 130
2001 = 149
2002 = 134
2003 = 126
2004 = 123
2005 = 127

Definition: Number of cardiac arrest patients transported that resuscitation was attempted by EMS.

Fig.1.a



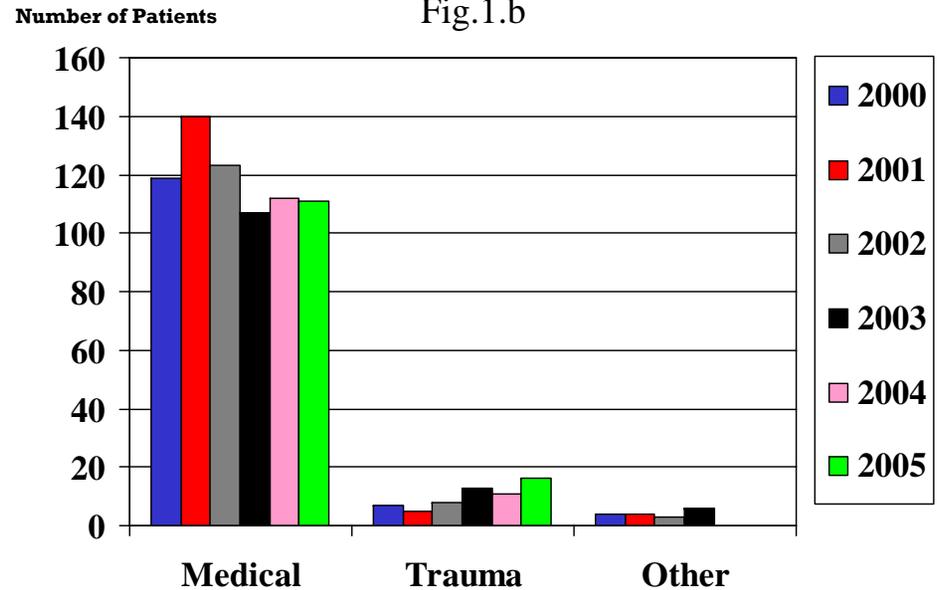
1.b: Cardiac Arrest Origin

Year	Medicals	Trauma	Other*
2000 =	119	7	4
2001 =	140	5	4
2002 =	123	8	3
2003 =	107	13	6
2004 =	112	11	0
2005 =	116	11	0

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.

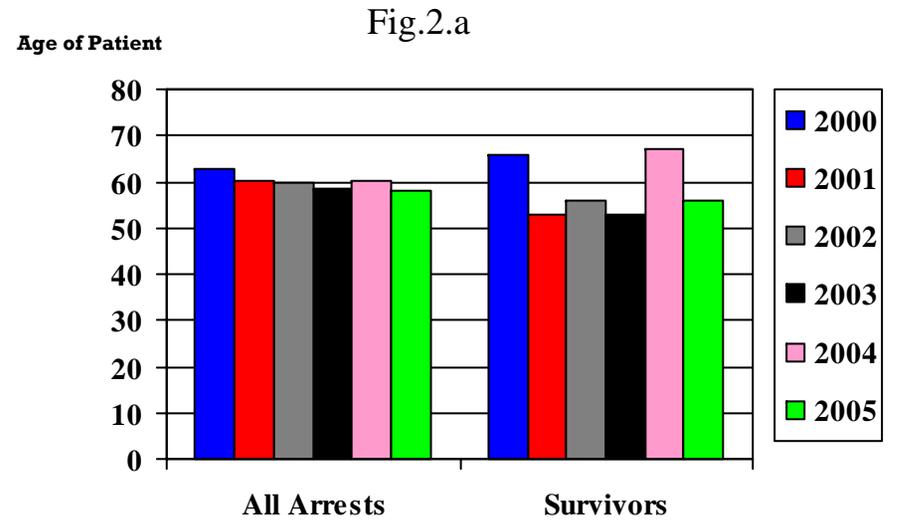
Fig.1.b



2.a: Average Age of Cardiac Arrests/Survivors

Year	All Arrests	Survivors
2000	63.0	65.9
2001	60.2	52.8
2002	59.9	56.1
2003	58.4	53.0
2004	60.3	66.9
2005	58.0	56.1

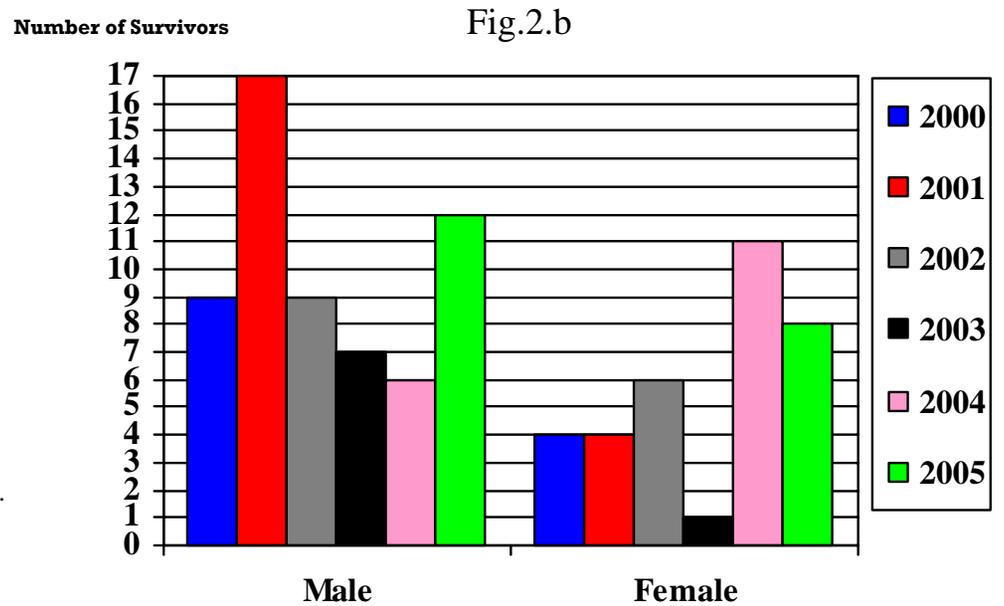
Definition: Average age of all cardiac arrest patients, and average age of cardiac arrest survivors.



2.b: Cardiac Arrest Survivors by Gender

Year	Survivors		Total Number of Resuscitations Attempted
	Male	Female	
2000	9	4	130
2001	17	4	149
2002	9	6	134
2003	7	1	126
2004	6	11	123
2005	12	8	127

Definition: Total number of cardiac arrest survivors per gender.



ALS Skill Proficiency

3.a: Advanced Life Support Skills (Minutes)

Year	IV Access	ET Intubation	Medication	Defib 1*	Defib 2**
2000	6.1	4.9	5.7	5.6	N/R***
2001	8.1	5.0	6.0	4.6	N/R***
2002	7.6	4.7	6.1	4.2	N/R***
2003	6.9	4.9	5.8	5.2	N/R***
2004	6.9	5.8	6.8	5.9	1.7
2005	6.3	4.8	6.2	7.0	1.5

Definition: IV, ET & Meds measured in minutes from provider arrival at scene to completion of skill.

**Defib 1:* measured in minutes from time of dispatch to first countershock delivered.

***Defib 2:* measured in minutes from time at patient side to first countershock delivered.

****Not Recorded*

3.b: Percent of Patients Receiving Intubation/IV access

Year	IV Access	ET Intubation
2000	96%	93%
2001	96%	98%
2002	87%	97%
2003	90%	95%
2004	97%	94%
2005	96%	94%

Definition: Percentage of cardiac arrest patients that received the IV or ET Intubation when indicated.

Fig.3.a

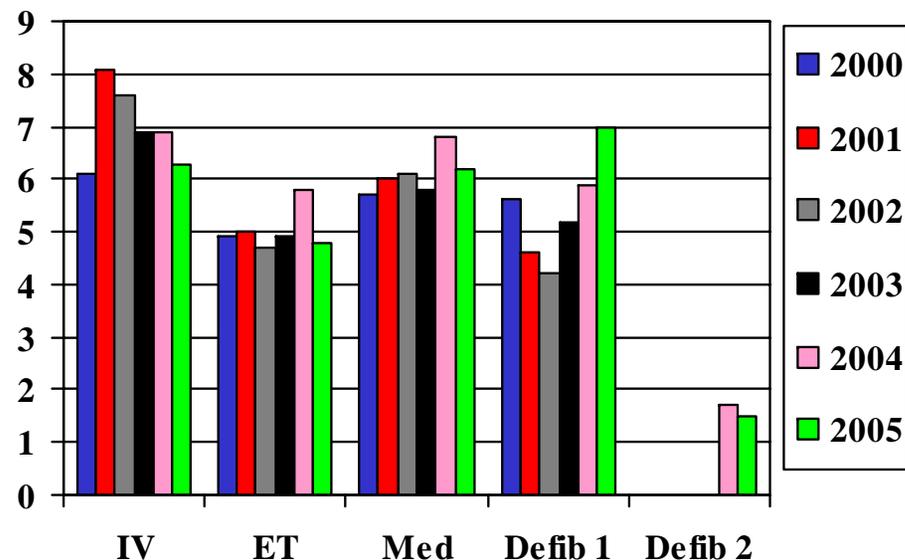
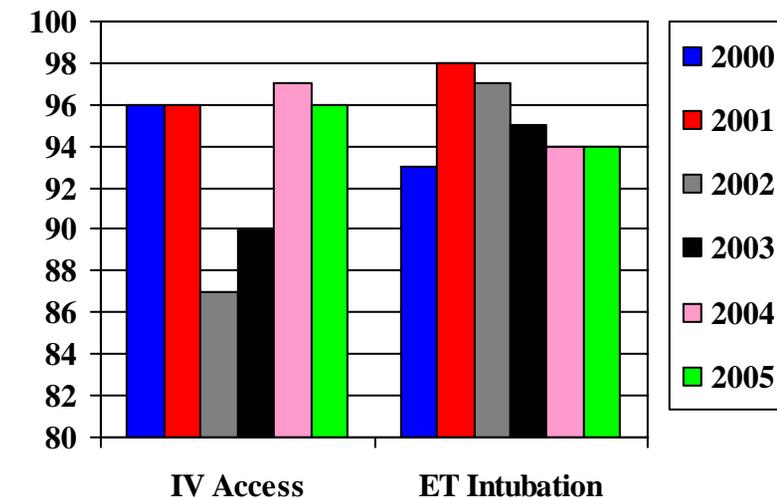


Fig.3.b

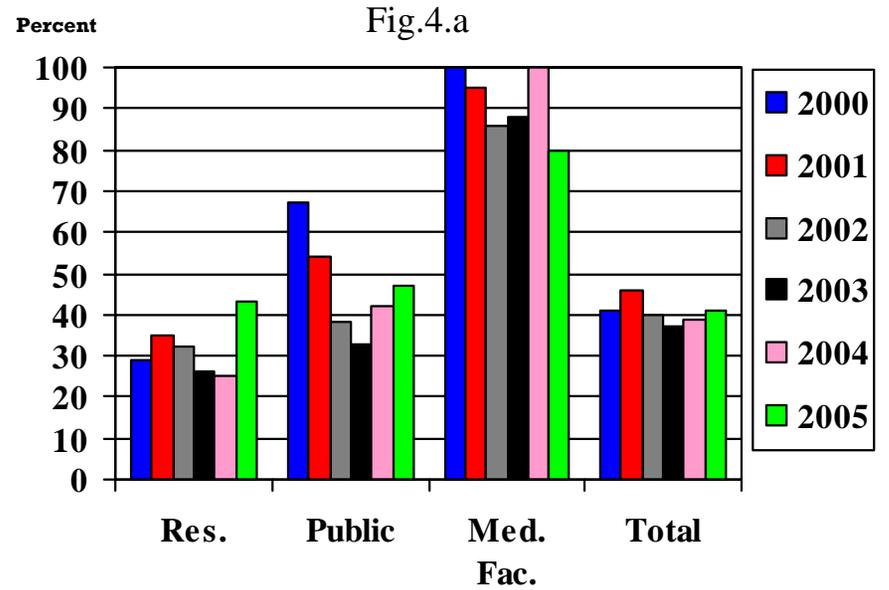


4.a: Percentage of Bystander CPR by Location of Arrest

Year	Residence	Public Place	Medical Facility*	Total
2000	29%	67%	100%	41%
2001	35%	54%	95%	46%
2002	32%	38%	86%	40%
2003	26%	33%	88%	37%
2004	25%	42%	100%	39%
2005	43%	47%	80%	41%

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

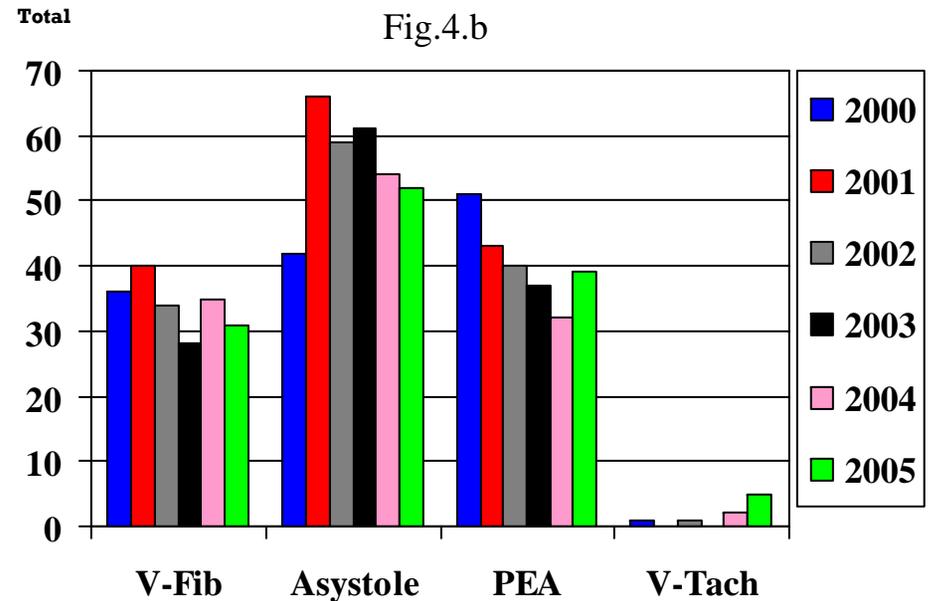
*Medical Facility includes skilled care facilities and physician offices.



4.b: Initial Cardiac Arrest ECG Rhythm

Year	V-Fib	Asystole	PEA	V-Tach	Total
2000	36	42	51	1	130
2001	40	66	43	0	149
2002	34	59	40	1	134
2003	28	61	37	0	126
2004	35	54	32	2	123
2005	31	52	39	5	127

Definition: Initial cardiac rhythm as described by EMS upon initial assessment of the cardiac arrest condition.



5.a: Return of Spontaneous Circulation for all Cardiac Arrests

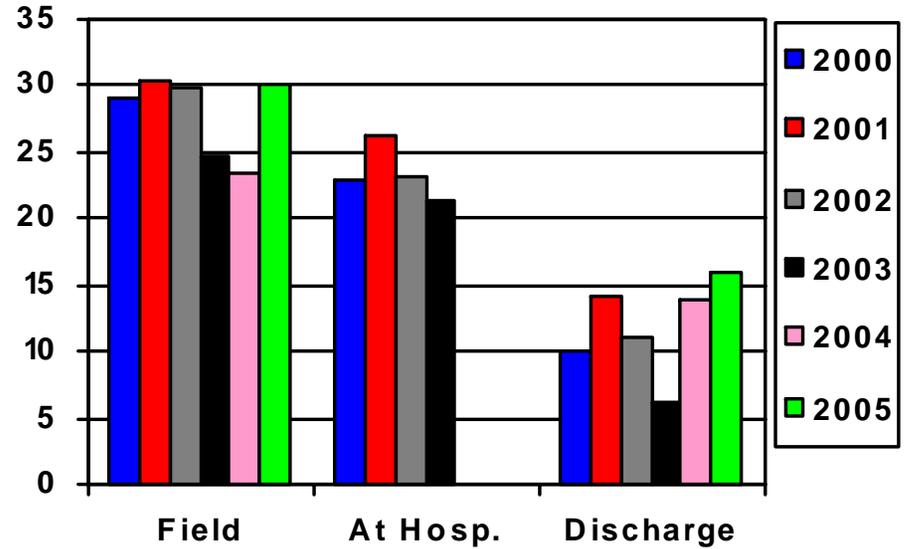
Year	In Field	At Hospital	Survival to Discharge*
2000	29%	23%	10%
2001	30%	26%	14%
2002	30%	23%	11%
2003	25%	21%	6%
2004	24%	N/R**	14%
2005	30%	N/R**	15.7%

Definition: The percentage of patients who had a return of a pulse during the period of pre-hospital care.

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

**Not recorded for the years 2004 & 2005

Percent Fig.5.a

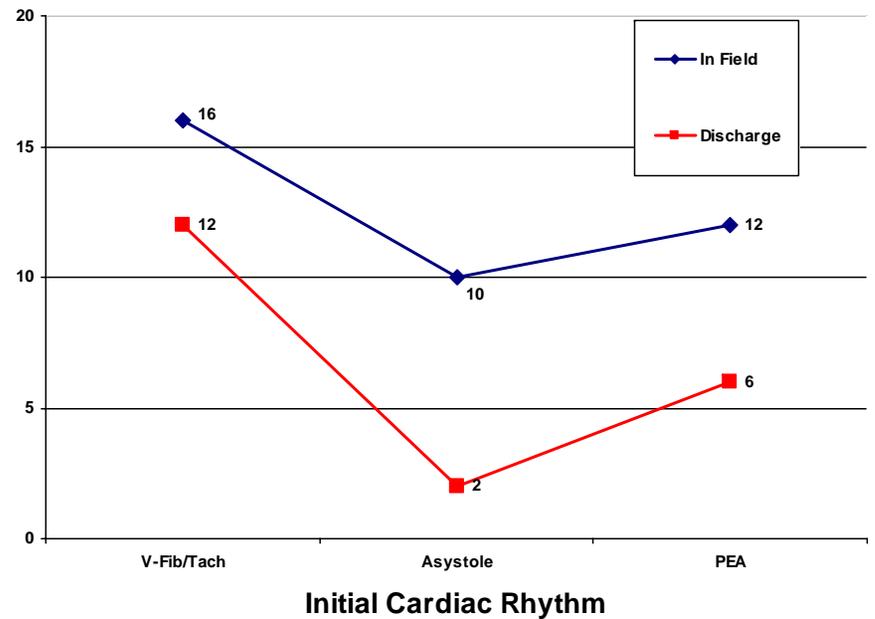


5.b: Return of Spontaneous Circulation (ROSC) by Initial Rhythm In the year 2005.

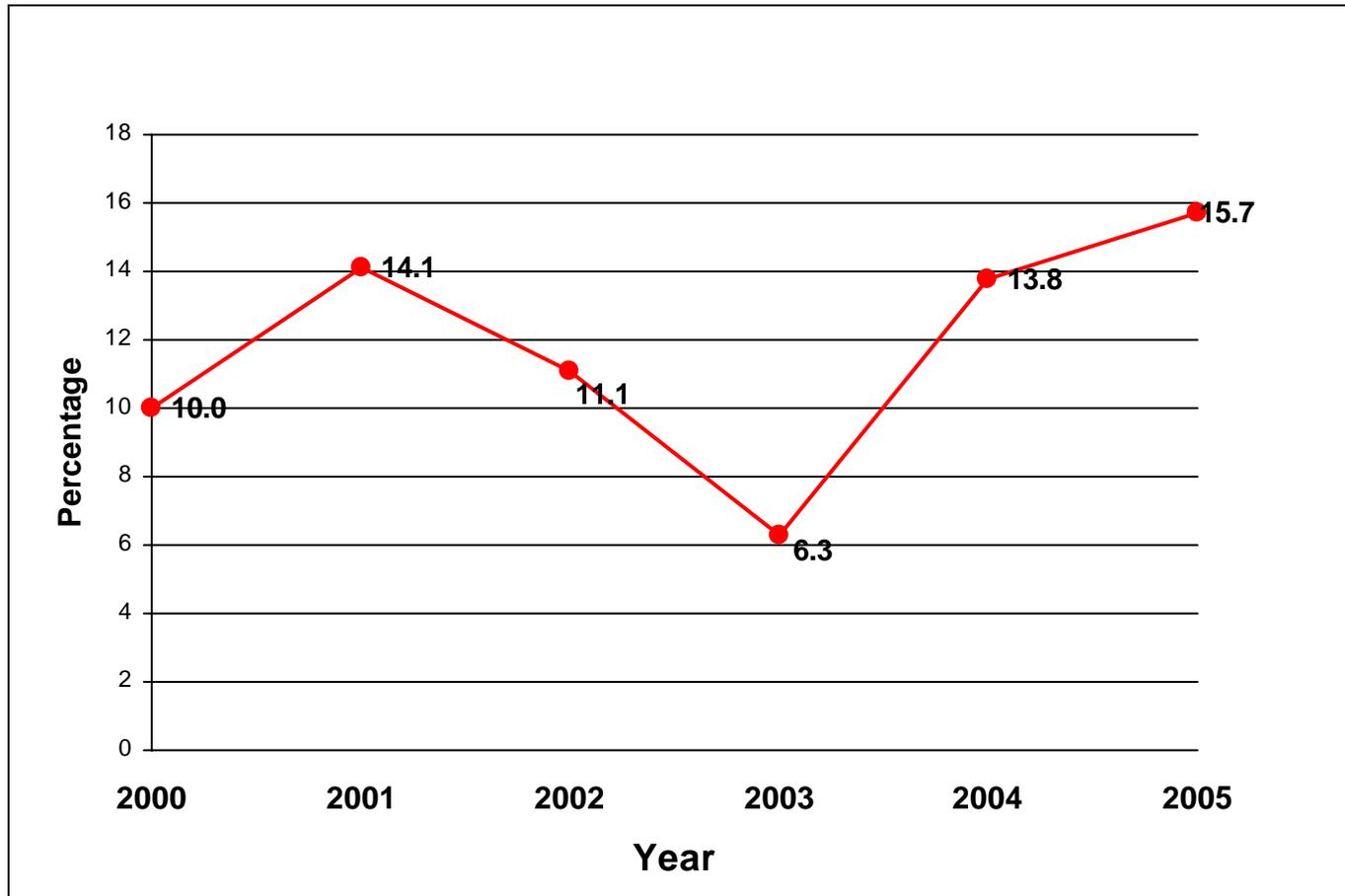
	V-Fib/Tach	Asystole	PEA	Total
# Treated	36	52	39	127
In Field ROSC	16(44.4%)	10(19.2%)	12(30.7%)	38(29.9%)
Discharged Alive	12(33.3%)	2(3.8%)	6(15.4%)	20(15.7%)

Definition: The total number of patients with the return of a pulse, classified by presenting cardiac rhythm.

Percent Fig.5.b



Survivors of Cardiac Arrest Discharged From The Hospital



Definition: Percentage of patients who experienced cardiac arrest, were revived and transported by Lincoln Fire & Rescue and eventually were discharged alive from the hospital. The cardiac arrest statistics include all transported cardiac arrest patients regardless of initial cardiac rhythm and including calls originating in both the City of Lincoln and Lancaster County.